

**From:** "dustin@healthygulf.org" <dustin@healthygulf.org>

**To:** "Knodel, Marissa S" <marissa.knodel@boem.gov>

**Subject:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

**Date:** Fri, 29 Apr 2022 14:59:16 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

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dustin@healthygulf.org has accepted this invitation.

### **BOEM-Gulf community outreach & engagement**

**When** Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago

**Calendar** Knodel, Marissa S

**Who**

- Knodel, Marissa S - organizer
- dustin@healthygulf.org - creator
- DuFore, Chris M
- Filostrat, John
- Celata, Michael
- Belter, Mark S
- Reuther, Dustin J
- Dalton, Laura M
- Robbins, Laura A
- Lyncker, Lissa A
- Moriarty, Tracey B

**Purpose:** To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

**Participants:**

- \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy
- \* Monique Hardin, Deep South Center for Environmental Justice
- \* Dustin Renaud, Communications Director, Healthy Gulf
- \* Mike Celata, Regional Director, BOEM Gulf of Mexico
- \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico
- \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico
- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
- \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM
- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico

- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- \* Mari a Knodel, Senior Advi or, BOEM

## Draft Agenda

- \* Introductions
- \* Review purpose and scope of meeting
- \* Overview of BOEM Gulf activitie and need for under erved and EJ community outreach and engagement
- \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming]
- \* Identify next steps and action items

---

### Micro oft Team meeting

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You are receiving this courtesy email at the account marissa.knodel@boem.gov because you are an attendee of this event

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Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

**Event:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Comment:** This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding. [dustin@healthygulf.org](mailto:dustin@healthygulf.org) has accepted this invitation. BOEM-Gulf community outreach & engagement When Fri May 13, 2022 12:30pm - 1:30pm Central Time - Chicago Calendar Knodel, Marissa S Who • Knodel, Marissa S - organizer • [dustin@healthygulf.org](mailto:dustin@healthygulf.org) - creator • DuFore, Chris M • Filostrat, John • Celata, Michael • Belter, Mark S • Reuther, Dustin J • Dalton, Laura M • Robbins, Laura A • Lyncker, Lissa A • Moriarty, Tracey B Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking. Participants: \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy \* Monique Hardin, Deep South Center for Environmental Justice \* Dustin Renaud, Communications Director, Healthy Gulf \* Mike Celata, Regional Director, BOEM Gulf of Mexico \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico \* John Filostrat, Public Affairs, BOEM Gulf of Mexico \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico \* Marissa Knodel, Senior Advisor, BOEM Draft Agenda \* Introductions \* Review purpose and scope of meeting \* Overview of BOEM Gulf activities and need for underserved and E] community outreach and engagement \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming] \* Identify next steps and action items

\_\_\_\_\_ Microsoft Teams meeting Join on your computer or mobile app Click here to join the meeting Learn More | Meeting options \_\_\_\_\_

Invitation from Google Calendar<<https://calendar.google.com/calendar/>> You are receiving this courtesy email at the account [marissa.knodel@boem.gov](mailto:marissa.knodel@boem.gov) because you are an attendee of this event. To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar. Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. Learn More<<https://support.google.com/calendar/answer/37135#forwarding>>.

**Date Created:** 2022-04-29 15:01:34 +0000

**Date Modified:** 2022-04-29 15:01:34 +0000

**Priority:** 5

**DTSTAMP:** 2022-04-29 14:59:16 +0000

**Attendee:** Knodel, Marissa S <marissa.knodel@boem.gov>

## **Event:** BOEM-Gulf community outreach & engagement

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <marissa.knodel@boem.gov>

**Status:** CONFIRMED

**DTSTAMP:** 2022-04-29 14:59:16 +0000

**Attendee:** dustin@healthygulf.org <dustin@healthygulf.org>

**Date Created:** 2022-04-29 14:25:49 +0000

**Date Modified:** 2022-04-29 14:59:16 +0000

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

### Participants:

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  - \* Monique Hardin, Deep South Center for Environmental Justice
  - \* Dustin Renaud, Communications Director, Healthy Gulf
  - \* Mike Celata, Regional Director, BOEM Gulf of Mexico
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  - \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico
  - \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
  - \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM
  - \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- Mexico
- \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico
  - \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
  - \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
  - \* Marissa Knodel, Senior Advisor, BOEM

### Draft Agenda

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- \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming]
- \* Identify next steps and action items



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Subject:** Accepted: [EXTERNAL] BOEM and OC Ocean Justice Meeting

**Date:** Fri, 15 Sep 2023 14:37:57 +0000

**Importance:** Normal

**Attachments:** unnamed

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**Event:** Accepted: [EXTERNAL] BOEM and OC Ocean Justice Meeting

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**Start Date:** 2023-09-19 14:00:00 +0000

**End Date:** 2023-09-19 14:30:00 +0000

**Location:** <https://oceanconservancy.zoom.us/j/95239438710?pwd=NmdtRlBqM2UyYzN2VXRyZHYvQjlwdz09>

**Class:** X-PERSONAL

**Comment:**

**Date Created:** 2023-09-15 14:39:29 +0000

**Date Modified:** 2023-09-15 14:39:29 +0000

**Priority:** 5

**DTSTAMP:** 2023-09-15 14:37:55 +0000

**Attendee:** Rachael DeWitt <rdewitt@oceanconservancy.org>



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** "Hoskins, Diane" <Dhoskins@oceana.org>  
**Subject:** Re: [EXTERNAL] Acreage q  
**Date:** Tue, 16 Nov 2021 23:10:57 +0000

---

Yes, that's correct.

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Tuesday, November 16, 2021 5:27 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Acreage q

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Hi Marissa, can you clarify why the acreage available for the region wide lease sale has gone up? I am guessing because of old leases expiring, but wanted to confirm. Thank you, Diane

**From:** Sara Chieffo <Sara\_Chieffo@lcv.org>

**To:** Sara Chieffo <Sara\_Chieffo@lcv.org>

**Cc:** Lizzy Duncan <lduncan@lcv.org>

**Subject:** [EXTERNAL] Alex Taurel's LCV Farewell Party -- Please RSVP by tomorrow

**Date:** Thu, 10 Nov 2022 16:34:52 +0000

**Inline-Images:** image001.png

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Friends,

I wanted to make sure you had seen our request for you to join LCV for Alex's Farewell Party next week. We would love to see you there!

**Please RSVP no later than this Friday, November 11<sup>th</sup>.**

**Party Details**

**When:** Thursday, Nov 17<sup>th</sup> 5:30-7:30pm EST

**Where:** Tiki TNT & Potomac Distilling Company: 1130 Maine Ave SW, Washington, D.C. 20024

**RSVP:** You can RSVP at the evite link: <http://evite.me/y6XAX35Aus>

Best,  
Sara

**Sara Chieffo**

(she, her, hers)

*VP, Government Affairs*

*League of Conservation Voters*

740 15th St NW, Suite 700 | Washington, DC 20005

202-413-9125 | [sara\\_chieffo@lcv.org](mailto:sara_chieffo@lcv.org)



Our Earth Is Worth Fighting For

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Celata, Michael" <Michael.Celata@boem.gov>, "Robbins, Laura A" <laura.robbs@boem.gov>, "Lyncker, Lissa A" <Lissa.Lyncker@boem.gov>, "Filostrat, John" <John.Filostrat@boem.gov>, "Moriarty, Tracey B" <Tracey.Moriarty@boem.gov>, "DuFore, Chris M" <Chris.DuFore@boem.gov>, "Dalton, Laura M" <Laura.Dalton@boem.gov>, "Reuther, Dustin J" <Dustin.Reuther@boem.gov>, "dustin@healthygulf.org" <dustin@healthygulf.org>, "Belter, Mark S" <Mark.Belter@boem.gov>

**Subject:** BOEM-Gulf community outreach & engagement

**Date:** Fri, 29 Apr 2022 14:25:49 +0000

**Importance:** Normal

**Attachments:** unnamed

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*Purpose:* To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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## **Event:** BOEM-Gulf community outreach & engagement

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Class:** X-PERSONAL

**Date Created:** 2022-04-29 14:30:23 +0000

**Date Modified:** 2022-04-29 14:30:23 +0000

**Priority:** 5

**DTSTAMP:** 2022-04-29 14:25:49 +0000

**Attendee:** Celata, Michael <Michael.Celata@boem.gov>; Robbins, Laura A <laura.robbins@boem.gov>; Lyncker, Lissa A <Lissa.Lyncker@boem.gov>; Filostrat, John <John.Filostat@boem.gov>; Moriarty, Tracey B <Tracey.Moriarty@boem.gov>; DuFore, Chris M <Chris.DuFore@boem.gov>; Dalton, Laura M <Laura.Dalton@boem.gov>; Reuther, Dustin J <Dustin.Reuther@boem.gov>; dustin@healthygulf.org <dustin@healthygulf.org>; Belter, Mark S <Mark.Belter@boem.gov>

**Alarm:** Display the following message 5m before start

| Reminder

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(b) (5)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Celata, Michael" <Michael.Celata@boem.gov>, "Robbins, Laura A" <laura.robbins@boem.gov>, "Lyncker, Lissa A" <Lissa.Lyncker@boem.gov>, "Filostrat, John" <John.Filostrat@boem.gov>, "Moriarty, Tracey B" <Tracey.Moriarty@boem.gov>, "DuFore, Chris M" <Chris.DuFore@boem.gov>, "Dalton, Laura M" <Laura.Dalton@boem.gov>, "Reuther, Dustin J" <Dustin.Reuther@boem.gov>, "dustin@healthygulf.org" <dustin@healthygulf.org>

**Subject:** BOEM-Gulf community outreach & engagement

**Date:** Fri, 29 Apr 2022 14:22:37 +0000

**Importance:** Normal

**Attachments:** unnamed

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**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Class:** X-PERSONAL

**Date Created:** 2022-04-29 14:27:19 +0000

**Date Modified:** 2022-04-29 14:27:19 +0000

**Priority:** 5

**DTSTAMP:** 2022-04-29 14:22:37 +0000

**Attendee:** Celata, Michael <Michael.Celata@boem.gov>; Robbins, Laura A <laura.robbs@boem.gov>; Lyncker, Lissa A <Lissa.Lyncker@boem.gov>; Filostrat, John <John.Filostat@boem.gov>; Moriarty, Tracey B <Tracey.Moriarty@boem.gov>; DuFore, Chris M <Chris.DuFore@boem.gov>; Dalton, Laura M <Laura.Dalton@boem.gov>; Reuther, Dustin J <Dustin.Reuther@boem.gov>; dustin@healthygulf.org <dustin@healthygulf.org>

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(b) (5)

>

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Kendall Dix <kdix@taproot.earth>  
**Subject:** Re: [EXTERNAL] Re: BOEM-Gulf community outreach & engagement  
**Date:** Tue, 19 Jul 2022 22:23:34 +0000

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I'm sorry, I left the office before I received your message, but will check tomorrow! I do not have a key to the room but will try to track one down.

Get [Outlook for iOS](#)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Tuesday, July 19, 2022 5:50:20 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Re: BOEM-Gulf community outreach & engagement

Hi, marissa. Thanks again for this afternoon.

Also, we might have left a phone in the conference room. If you find a rose gold Samsung flip phone, would you please let me know?

Thanks,  
Kendall

On Thu, Jul 14, 2022 at 1:58 PM Kendall Dix <kdix@taproot.earth> wrote:  
Thanks, Marissa. Looking forward to it.

On Thu, Jul 14, 2022 at 11:13 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hello Kendall,

We're all set for Tuesday, July 19 at 4:00 p.m. at the Main Interior building, 1849 C St. NW. The security entrance is off of C St, and security usually takes 10-15 minutes. We'll be on the 5<sup>th</sup> floor, room 5248. My cell is below if you and Colette have any issues.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, July 12, 2022 2:26 PM  
**To:** Kendall Dix <kdix@taproot.earth>  
**Subject:** Re: [EXTERNAL] Re: BOEM-Gulf community outreach & engagement

Sounds great, thank you!

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Tuesday, July 12, 2022 2 15 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re [EXTERNAL] Re BOEM Gulf community outreach & engagement

OK, great. Let's lock up Tuesday at 4:00. Right now it will just be me and Colette, but I'm going to check to see if anyone from NDN Collective would like to join, and I'll let you know

Thanks,  
Kendall

On Tue, Jul 12, 2022 at 2:14 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Director Lefton said if we can meet around 4 00 p m on Tuesday, she may be back from Boston by then

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, July 12, 2022 1 42 PM  
**To:** Kendall Dix <kdix@taproot.earth>  
**Subject:** Re [EXTERNAL] Re BOEM Gulf community outreach & engagement

Hey Kendall,

Quick update: the Director and I will be participating in an off-site retreat on Wednesday, July 20. The Deputy Director and I can meet with you and Colette, any time after 3:00 p.m. ET on Tuesday, July 19.

Let me know if an hour is enough time, and if there is anyone else other than you and Colette planning to attend so we can let security know and reserve a room.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Tuesday, July 12, 2022 12:46 PM  
**To:** Kendall Dix kdix@taproot.earth  
**Subject:** Re: [EXTERNAL] Re: BOEM-Gulf community outreach & engagement

Hello Kendall,

Great to hear from you, and yes, we're based in D C at the main Interior building (1849 C St NW, 5<sup>th</sup> floor). I'd love the opportunity to meet with you and Colette, and will extend the invite to the Director and Deputy Director. I know that the Director will be in Boston July 18-19, so July 20 is best. Are there preferable times that day for you and Colette?

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Sent:** Tuesday, July 12, 2022 12:37 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Re: BOEM-Gulf community outreach & engagement

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Hi, Marissa.

My boss, Colette Pichon Battle, and I will be in DC from July 18 to 20 with our partners at NDN Collective to introduce ourselves as an organization and discuss the importance of Black and Indigenous solidarity to address the climate crisis.

Are you all in DC? We would also like to meet with folks at BOEM to talk about offshore oil, wind, and CCS while we're in town.

Thanks,  
Kendall Dix

On Wed, May 18, 2022 at 6:12 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

**Notes from internal debrief/discussion 5/18/2022:**

*Some key takeaways/action items:*

*Short term:*

- Informational materials/one-pagers for dissemination within communities to better prepare them for engagement in advance of meetings and comment periods
  - Can we work with DOE to adapt existing materials? -- Chris DuFore
  - Need to touch base with rulemaking team to develop specific questions and highlight how their input/EJ impacts will be incorporated -- Marissa
- Accessible meetings (in-person, virtual, multiple languages, etc.) in multiple locations at multiple times to accommodate schedules

- Incorporate socioeconomic/EJ studies to help communities and inform decision making processes, reviews; partner with HBCUs
- For meetings regarding the CS rule in particular, but also applicable for the National OCS Program and offshore wind as well, convene meetings with other relevant federal and state agencies that have authority over potential impacts that we do not

### *Long term*

- Explore big picture, systemic suggestion for a rulemaking or enforceable policy that details principles of EJ outreach/engagement to which BOEM can be held accountable Marissa to socialize with leadership

### *Action items*

- Can we work with DOE to adapt existing materials? Chris DuFore
- Need to touch base with rulemaking team to develop specific questions and highlight how their input/EJ impacts will be incorporated Marissa
- Follow up meeting with CS rule outreach team (Laura, Emily) Mark, Chris
- Schedule follow up meeting with Gulf EJ reps when we have actions/responses to report Marissa

Marissa Knodel  
 Senior Advisor, Bureau of Ocean Energy Management  
 202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S  
**Sent:** Friday, April 29, 2022 10 22 AM  
**To:** Celata, Michael <[Michael.Celata@boem.gov](mailto:Michael.Celata@boem.gov)>; Robbins, Laura A <[laura.robbs@boem.gov](mailto:laura.robbs@boem.gov)>; Filostrat, John [John Filostat@boem.gov](mailto:John.Filostat@boem.gov) ; DuFore, Chris M [Chris DuFore@boem.gov](mailto:Chris.DuFore@boem.gov) ; Reuther, Dustin J <[Dustin.Reuther@boem.gov](mailto:Dustin.Reuther@boem.gov)>; [dustin@healthygulf.org](mailto:dustin@healthygulf.org) <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>; Belter, Mark S [Mark Belter@boem.gov](mailto:Mark.Belter@boem.gov) ; [kendall@gcclp.org](mailto:kendall@gcclp.org) [kendall@gcclp.org](mailto:kendall@gcclp.org) ; [grace@gcclp.org](mailto:grace@gcclp.org) [grace@gcclp.org](mailto:grace@gcclp.org) ; [moniqueh@dscej.org](mailto:moniqueh@dscej.org) <[moniqueh@dscej.org](mailto:moniqueh@dscej.org)>; Matthews, Tershara N <[Tershara.Matthews@boem.gov](mailto:Tershara.Matthews@boem.gov)>; Hammerle, Kelly K [Kelly Hammerle@boem.gov](mailto:Kelly.Hammerle@boem.gov)  
**Subject:** BOEM-Gulf community outreach & engagement  
**When:** Friday, May 13, 2022 1 30 PM 2 30 PM  
**Where:**

*Purpose* To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking

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- Grace Treffinger, Gulf Coast Center for Law and Policy
- Monique Hardin, Deep South Center for Environmental Justice

- Dustin Renaud, Communications Director, Healthy Gulf
- Mike Celata, Regional Director, BOEM Gulf of Mexico
- Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico
- John Filostrat, Public Affairs, BOEM Gulf of Mexico
- Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
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- Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- Tershara Matthews, Chief, Emerging Programs, BOEM Gulf of Mexico
- Kelly Hammerle, Chief, National Program Development Branch
- Marissa Knodel, Senior Advisor, BOEM

### *Draft Agenda*

- Introductions
- Review purpose and scope of meeting
- Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement
- [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming]
- Identify next steps and action items

---

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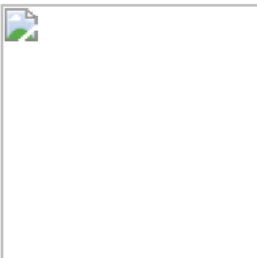
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### **Kendall Dix**

National Policy Director

Taproot Earth

he/him



---

■ [\(434\) 442-0179](tel:(434)442-0179)

■ [kdix@taproot.earth](mailto:kdix@taproot.earth)

---

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Sanders, Ramona N." <Ramona.Sanders@bsee.gov>, "Celata, Michael" <Michael.Celata@boem.gov>, "Robbins, Laura A" <laura.robbs@boem.gov>, "Filostrat, John" <John.Filostrat@boem.gov>, "DuFore, Chris M" <Chris.DuFore@boem.gov>, "Reuther, Dustin J" <Dustin.Reuther@boem.gov>, "dustin@healthygulf.org" <dustin@healthygulf.org>, "Belter, Mark S" <Mark.Belter@boem.gov>, "kendall@gcclp.org" <kendall@gcclp.org>, "grace@gcclp.org" <grace@gcclp.org>, "moniqueh@dscej.org" <moniqueh@dscej.org>, "Matthews, Tershara N" <Tershara.Matthews@boem.gov>, "Hammerle, Kelly K" <Kelly.Hammerle@boem.gov>

**Subject:** FW: BOEM-Gulf community outreach & engagement

**Date:** Thu, 29 Jun 2023 19:38:47 +0000

**Importance:** Normal

**Attachments:** unnamed

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Friday, April 29, 2022 9:22:39 AM (UTC-06:00) Central Time (US & Canada)

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Celata, Michael <Michael.Celata@boem.gov>; Robbins, Laura A <laura.robbs@boem.gov>; Filostrat, John <John.Filostrat@boem.gov>; DuFore, Chris M <Chris.DuFore@boem.gov>; Reuther, Dustin J <Dustin.Reuther@boem.gov>; dustin@healthygulf.org <dustin@healthygulf.org>; Belter, Mark S <Mark.Belter@boem.gov>; kendall@gcclp.org <kendall@gcclp.org>; grace@gcclp.org <grace@gcclp.org>; moniqueh@dscej.org <moniqueh@dscej.org>; Matthews, Tershara N <Tershara.Matthews@boem.gov>; Hammerle, Kelly K <Kelly.Hammerle@boem.gov>

**Subject:** BOEM-Gulf community outreach & engagement

**When:** Friday, May 13, 2022 12:30 PM-1:30 PM.

**Where:**

*Purpose:* To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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  - Review purpose and scope of meeting
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## **Event:** FW: BOEM-Gulf community outreach & engagement

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Class:** X-PERSONAL

**Date Created:** 2023-06-29 19:55:18 +0000

**Date Modified:** 2023-06-29 19:55:18 +0000

**Priority:** 5

**DTSTAMP:** 2022-05-09 16:58:33 +0000

**Attendee:** Sanders, Ramona N. <Ramona.Sanders@bsee.gov>; Celata, Michael <Michael.Celata@boem.gov>; Robbins, Laura A <laura.robbins@boem.gov>; Filostrat, John <John.Filostat@boem.gov>; DuFore, Chris M <Chris.DuFore@boem.gov>; Reuther, Dustin J <Dustin.Reuther@boem.gov>; dustin@healthygulf.org <dustin@healthygulf.org>; Belter, Mark S <Mark.Belter@boem.gov>; kendall@gcclp.org <kendall@gcclp.org>; grace@gcclp.org <grace@gcclp.org>; moniqueh@dscej.org <moniqueh@dscej.org>; Matthews, Tershara N <Tershara.Matthews@boem.gov>; Hammerle, Kelly K <Kelly.Hammerle@boem.gov>

---

From: Knodel, Marissa S &lt;Marissa.Knodel@boem.gov&gt;  
Sent: Friday, April 29, 2022 9:22:39 AM (UTC-06:00) Central Time (US & Canada)  
To: Knodel, Marissa S &lt;Marissa.Knodel@boem.gov&gt;; Celata, Michael &lt;Michael.Celata@boem.gov&gt;; Robbins, Laura A &lt;laura.robbins@boem.gov&gt;; Filostrat, John &lt;John.Filostat@boem.gov&gt;; DuFore, Chris M &lt;Chris.DuFore@boem.gov&gt;; Reuther, Dustin J &lt;Dustin.Reuther@boem.gov&gt;; dustin@healthygulf.org &lt;dustin@healthygulf.org&gt;; Belter, Mark S &lt;Mark.Belter@boem.gov&gt;; kendall@gcclp.org &lt;kendall@gcclp.org&gt;; grace@gcclp.org &lt;grace@gcclp.org&gt;; moniqueh@dscej.org &lt;moniqueh@dscej.org&gt;; Matthews, Tershara N &lt;Tershara.Matthews@boem.gov&gt;; Hammerle, Kelly K &lt;Kelly.Hammerle@boem.gov&gt;  
Subject: BOEM-Gulf community outreach & engagement  
When: Friday, May 13, 2022 12:30 PM-1:30 PM.  
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- \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico
- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico

Mexico

- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
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[Redacted text block]

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Celata, Michael" <Michael.Celata@boem.gov>, "Robbins, Laura A" <laura.robbs@boem.gov>, "Lyncker, Lissa A" <Lissa.Lyncker@boem.gov>, "Filostrat, John" <John.Filostrat@boem.gov>, "Moriarty, Tracey B" <Tracey.Moriarty@boem.gov>, "DuFore, Chris M" <Chris.DuFore@boem.gov>, "Dalton, Laura M" <Laura.Dalton@boem.gov>, "Reuther, Dustin J" <Dustin.Reuther@boem.gov>, "dustin@healthygulf.org" <dustin@healthygulf.org>, "Belter, Mark S" <Mark.Belter@boem.gov>, "kendall@gcclp.org" <kendall@gcclp.org>, "grace@gcclp.org" <grace@gcclp.org>, "moniqueh@dscej.org" <moniqueh@dscej.org>

**Subject:** BOEM-Gulf community outreach & engagement

**Date:** Fri, 29 Apr 2022 15:35:26 +0000

**Importance:** Normal

**Attachments:** unnamed

---

*Purpose:* To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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- Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico
- John Filostrat, Public Affairs, BOEM Gulf of Mexico
- Tracey Moriarty, Deputy Chief of Public Affairs, BOEM
- Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico
- Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- Marissa Knodel, Senior Advisor, BOEM

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## **Event:** BOEM-Gulf community outreach & engagement

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Class:** X-PERSONAL

**Date Created:** 2022-04-29 15:35:35 +0000

**Date Modified:** 2022-04-29 15:35:35 +0000

**Priority:** 5

**DTSTAMP:** 2022-04-29 15:35:25 +0000

**Attendee:** Celata, Michael <Michael.Celata@boem.gov>; Robbins, Laura A <laura.robbins@boem.gov>; Lyncker, Lissa A <Lissa.Lyncker@boem.gov>; Filostrat, John <John.Filostat@boem.gov>; Moriarty, Tracey B <Tracey.Moriarty@boem.gov>; DuFore, Chris M <Chris.DuFore@boem.gov>; Dalton, Laura M <Laura.Dalton@boem.gov>; Reuther, Dustin J <Dustin.Reuther@boem.gov>; dustin@healthygulf.org <dustin@healthygulf.org>; Belter, Mark S <Mark.Belter@boem.gov>; kendall@gcclp.org <kendall@gcclp.org>; grace@gcclp.org <grace@gcclp.org>; moniqueh@dscej.org <moniqueh@dscej.org>

**Alarm:** Display the following message 5m before start

| Reminder

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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Mexico

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Celata, Michael" <Michael.Celata@boem.gov>, "Robbins, Laura A" <laura.robbs@boem.gov>, "Filostrat, John" <John.Filostrat@boem.gov>, "DuFore, Chris M" <Chris.DuFore@boem.gov>, "Reuther, Dustin J" <Dustin.Reuther@boem.gov>, "dustin@healthygulf.org" <dustin@healthygulf.org>, "Belter, Mark S" <Mark.Belter@boem.gov>, "kendall@gcclp.org" <kendall@gcclp.org>, "grace@gcclp.org" <grace@gcclp.org>, "moniqueh@dscej.org" <moniqueh@dscej.org>, "Matthews, Tershara N" <Tershara.Matthews@boem.gov>, "Hammerle, Kelly K" <Kelly.Hammerle@boem.gov>

**Subject:** BOEM-Gulf community outreach & engagement

**Date:** Mon, 9 May 2022 16:58:34 +0000

**Importance:** Normal

**Attachments:** unnamed

---

*Purpose:* To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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- Kelly Hammerle, Chief, National Program Development Branch
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## **Event:** BOEM-Gulf community outreach & engagement

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**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Class:** X-PERSONAL

**Date Created:** 2022-05-09 16:58:40 +0000

**Date Modified:** 2022-05-09 16:58:40 +0000

**Priority:** 5

**DTSTAMP:** 2022-05-09 16:58:33 +0000

**Attendee:** Celata, Michael <Michael.Celata@boem.gov>; Robbins, Laura A <laura.robbins@boem.gov>; Filostrat, John <John.Filostrat@boem.gov>; DuFore, Chris M <Chris.DuFore@boem.gov>; Reuther, Dustin J <Dustin.Reuther@boem.gov>; dustin@healthygulf.org <dustin@healthygulf.org>; Belter, Mark S <Mark.Belter@boem.gov>; kendall@gcclp.org <kendall@gcclp.org>; grace@gcclp.org <grace@gcclp.org>; moniqueh@dscej.org <moniqueh@dscej.org>; Matthews, Tershara N <Tershara.Matthews@boem.gov>; Hammerle, Kelly K <Kelly.Hammerle@boem.gov>

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**From:** Kendall Dix <kdix@taproot.earth>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Re: COVID protocols for in-person meetings?

**Date:** Tue, 26 Jul 2022 16:55:20 -0400

**Attachments:** Taproot\_In-Person\_Protocols\_During\_COVID.pdf

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi, Marissa.

We're glad to hear that you all are considering an in-person meeting. We've attached our COVID protocols that allowed us to safely hold an in-person meeting for 1,000 people in June.

There are two options we can provide for helping to facilitate a public meeting with BOEM, assuming that this meeting will take place before the comment period ends on October 6:

1. On Wednesday September 14, we could co-host a deeply facilitated meeting that would be inclusive and meaningful for community members. We would help set the agenda, invite key participants, and assist with the logistical piece, including suggesting local interpreters. We would suggest making use of well-ventilated public spaces, such as the University of New Orleans.
2. If September 14 doesn't work for BOEM or Taproot can't play an active role in planning the agenda and facilitating, we can help coordinate the other local and national groups that would like to help drive engagement for the meeting. We will already be preparing people to comment with our own popular education series that will complement BOEM's virtual open houses, though not on 8/29, the anniversary of Katrina and Ida, which is an important day of remembrance for the Gulf South.

We assume you are wanting this meeting to happen before October 6, but if you are open to a meeting the week of February 6 or February 27, we have more flexibility. Would love to know your thoughts or answer any questions.

Thanks,  
Kendall

On Tue, Jul 26, 2022 at 10:07 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hello again!

In addition to the COVID protocols, Director Lefton and I are interested in Colette's/Taproot Earth's offer to potentially help convene a public meeting in the Gulf region to provide the opportunity for folks to provide public testimony, with a court reporter, on BOEM-related issues, including the next five-year program.

Can you give me a sense of what the logistics for such a convening would entail and the time needed to make one happen?

Thanks so much

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, July 26, 2022 9 19 AM  
**To:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Subject:** COVID protocols for in person meetings?

Hello Kendall,

During our meeting last week, Colette mentioned robust COVID protocols for in-person meetings that Taproot Earth could help convene. Could you send those my way?

Thanks!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa\\_Knodel@boem.gov](mailto:Marissa_Knodel@boem.gov)

---

*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*



## **Taproot In-Person Protocols During COVID-19 Pandemic**

Taproot takes very seriously the threat posed by the COVID-19 pandemic. We also recognize the political issue that public health has become. As an organization, we believe in the collective- including our collective health and well-being. We know that it is possible to have in-person meetings and keep people safe. For every in-person gathering, the following procedures will be strictly followed:

### **COVID Protocols**

- Proof of full vaccination required.
- All participants will conduct a rapid self-test upon arrival. We ask people to arrive 15 minutes early to conduct this.
- Masks are mandatory and may only be removed in short moments of eating or drinking or speaking from far away with no one within 6 feet.
- Hand sanitizer available and highly encouraged throughout the event.
- During any health or emergency: Wear a face mask (even if outdoors) and alert any medical professional on the scene of your vaccination status - then comply with medical instruction on a case by case basis.
- We will select sites that are either outdoors or have adequate ventilation.
- We will offer hybrid options for people who cannot participate virtually.



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Kendall Dix <kdix@taproot.earth>

**Subject:** Automatic reply: [EXTERNAL] Re: COVID protocols for in-person meetings?

**Date:** Mon, 8 Aug 2022 14:34:42 +0000

---

Hello and thank you for your e-mail. I am out of the office for work travel in Alaska Monday, August 8th through Friday, August 12th, and may be slow to respond. If urgent, my cell is 202-538-2415.

Peace,

Marissa Knodel

Marissa Knodel

**From:** Kendall Dix <kdix@taproot.earth>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Re: COVID protocols for in-person meetings?  
**Date:** Mon, 29 Aug 2022 16:37:23 -0400

---

Hi, Marissa. Hope you had a good weekend.

Today on a frontline call, people were wondering whether BOEM will have a process to prioritize frontline voices. For example, at some public meetings, people who live closest to proposed projects are given the first opportunity to speak. Will you all have anything like this for the Sept. 12 hearing? It seems like just calling on whoever raises their hand first will prioritize those who are most comfortable with zoom technology and fastest on the draw, who might not be the most impacted community members.

Thanks,  
Kendall

On Wed, Aug 17, 2022 at 1:13 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

I should add that registration is encouraged so we can get a sense of numbers for participation, but is not required and will not impact your ability to testify.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Wednesday, August 17, 2022 1:03 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Re: COVID protocols for in-person meetings?

Thank you. That's very helpful to know.

On Wed, Aug 17, 2022 at 1:03 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hey Kendall,

My understanding is that once everyone has logged on, folks will be asked to use the "raise your hand" feature, and the queue for speaking will be developed then, so not based on when you registered.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Wednesday, August 17, 2022 12:47 PM

**To:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Subject:** Re: [EXTERNAL] Re: COVID protocols for in-person meetings?

Thanks for understanding, Marissa

By the way, I've gotten a few questions about how the queue for making verbal testimony at the September 12 virtual hearing will work. Some have wondered whether it will be first come, first served. We hope that it is not the case because it seems to us that the people most likely to immediately RSVP for a BOEM hearing might not be from frontline communities. We're still going through a public education process, and our sense is that a lot of people still don't know about the virtual hearing yet

What's your thinking about this?

Thanks,  
Kendall

On Tue, Aug 16, 2022 at 12:18 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hello Kendall,

Thank you for following up, and I apologize that our internal decision process did not align with an in person meeting on September 14th We really appreciate your efforts to drive comments on the Proposed Program, and for participating in the open houses and virtual meeting

I continue to socialize ideas for a convening in the Gulf region, so will be in touch when I have any updates

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>

**Sent:** Friday, August 12, 2022 7 01 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** Re [EXTERNAL] Re COVID protocols for in person meetings?

Hi, Marissa. I don't think I've directly said yet how much we appreciate that you all are hosting a virtual meeting where people can give verbal testimony Thanks again for that

I also wanted to let you know that given our capacity and how close we are to mid September now, we're going to have to pass on hosting an in-person meeting for the five-year plan on September 14. We still support any in person meetings that you all may choose to host and will do what we can to get people to participate in them if they happen. We will also be doing our part to educate people and drive people to submit verbal and written comments throughout the comment period Thanks again for being so open to our ideas on this, and I'm sure we'll be able to collaborate on something else soon.

Thanks,  
Kendal

On Thu, Aug 11, 2022 at 11 44 AM Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov) wrote

Totally understood, thanks Kendall

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Thursday, August 11, 2022 10 42 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re [EXTERNAL] Re COVID protocols for in person meetings?

It's the only date where we can help facilitate the meeting. It could be that there are other groups who can help pull off a meeting, but we're only available on 9/14 Sorry, it's a busy time for all of us, I know

On Thu, Aug 11, 2022 at 1 07 AM Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov) wrote  
Hey Kendall,

I apologize for how long the decision process is taking. I have stressed the urgency of timing and am aiming to have a response for you by the end of the week.

I was wondering if September 14th is the only possible date during the comment period for the Proposed Program (ending on October 6th)?

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix kdix@taproot.earth  
**Sent:** Monday, August 8, 2022 10:34 AM  
**To:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Subject:** Re: [EXTERNAL] Re: COVID protocols for in-person meetings?

Hi, Marissa I know you all have probably had a crazy couple of weeks with IRA, but I wanted to follow up on the possibility of an in-person hearing on September 14 or in February. I just want to make sure we have enough time to plan and can start getting to work on it

Thanks,  
Kendall

On Tue, Jul 26, 2022 at 5:00 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Thanks very much, Kendall I will share this information with the Director and circle back

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Sent:** Tuesday, July 26, 2022 4 55 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Re COVID protocols for in person meetings?

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi, Marissa.

We're glad to hear that you all are considering an in-person meeting. We've attached our COVID protocols that allowed us to safely hold an in person meeting for 1,000 people in June

There are two options we can provide for helping to facilitate a public meeting with BOEM, assuming that this meeting will take place before the comment period ends on October 6:

1. On Wednesday September 14, we could co-host a deeply facilitated meeting that would be inclusive and meaningful for community members. We would help set the agenda, invite key participants, and assist with the logistical piece, including suggesting local interpreters. We would suggest making use of well ventilated public spaces, such as the University of New Orleans
2. If September 14 doesn't work for BOEM or Taproot can't play an active role in planning the agenda and facilitating, we can help coordinate the other local and national groups that would like to help drive engagement for the meeting. We will already be preparing people to comment with our own popular education series that will complement BOEM's virtual open houses, though not on 8/29, the anniversary of Katrina and Ida, which is an important day of remembrance for the Gulf South

We assume you are wanting this meeting to happen before October 6, but if you are open to a meeting the week of February 6 or February 27, we have more flexibility. Would love to know your thoughts or answer any questions

Thanks,  
Kendall

On Tue, Jul 26, 2022 at 10:07 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hello again!

In addition to the COVID protocols, Director Lefton and I are interested in Colette's/Taproot Earth's offer to potentially help convene a public meeting in the Gulf region to provide the opportunity for folks to provide public testimony, with a court reporter, on BOEM related issues, including the next five year program

Can you give me a sense of what the logistics for such a convening would entail and the time needed to make one happen?

Thanks so much

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, July 26, 2022 9 19 AM  
**To:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Subject:** COVID protocols for in person meetings?

Hello Kendall,

During our meeting last week, Colette mentioned robust COVID protocols for in-person meetings that Taproot Earth could help convene. Could you send those my way?

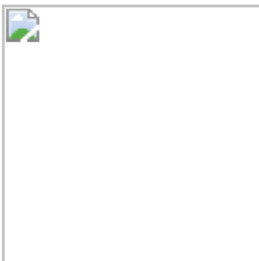
Thanks!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem gov](mailto:Marissa.Knodel@boem.gov)

---

*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/him

---



■ [\(434\) 442 0179](tel:(434)4420179)  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](https://taproot.earth)

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*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming*

launch events!

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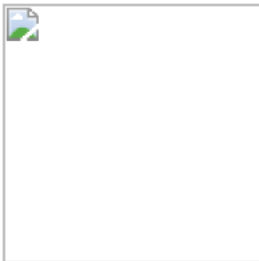
*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

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*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

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*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/him



---

■ [\(434\) 442 0179](tel:(434)4420179)  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](http://taproot.earth)

---

*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*



**Join us for [Climate on Tap](#), a 7-day virtual experience with frontline leaders, beginning August 29. [Register here.](#)**

**From:** David Shadburn <dshadburn@lcv.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** RE: [EXTERNAL] Checking in on Offshore Wind Vessel Crewing  
**Date:** Tue, 26 Jul 2022 18:18:20 +0000

---

Thanks Marissa! Will call you in a few minutes then if that still works. We can keep this relatively brief, but appreciate the opportunity to check in.

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Tuesday, July 26, 2022 1:31 PM  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] Checking in on Offshore Wind Vessel Crewing

Hey David,

I don't have too much to report, but am available today between 2:00-3:30 and after 4:30 if you want to give me a call.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Tuesday, July 26, 2022 9:26 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Checking in on Offshore Wind Vessel Crewing

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Thanks again for chatting with me a few weeks ago about this offshore wind vessel crewing issue! I'm wondering if we can check in on this again sometime this week?

Thanks so much! Let me know if there are times that work particularly well for you. I know you mentioned your leg affairs staff was working on this too – would be happy to chat with them too, or just with you, or whatever you think makes the most sense. Really appreciate all your work on this.

-David



--

David Shadburn (he/him)  
Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Alex Taurel <Alex\_Taurel@lcv.org>  
**Subject:** Re: [EXTERNAL] Coalition statement on 5YP from Friday  
**Date:** Mon, 18 Jul 2022 16:06:54 +0000

---

Thanks very much, Alex.

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Alex Taurel <Alex\_Taurel@lcv.org>  
**Sent:** Monday, July 18, 2022 12:04 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Lefton, Amanda B <Amanda.Lefton@boem.gov>; Alonso, Shantha R <shantha\_alonso@ios.doi.gov>; Feldgus, Steven H <steve\_feldgus@ios.doi.gov>; Daniel-Davis, Laura E <laura\_daniel-davis@ios.doi.gov>; Kelly, Katherine P <Kate.Kelly@ios.doi.gov>; (b) (6)  
**Cc:** Tiernan Sittenfeld <tiernan\_sittenfeld@lcv.org>; Leah Donahey <ldonahey@lcv.org>  
**Subject:** [EXTERNAL] Coalition statement on 5YP from Friday

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi and hope folks got some time away this weekend after last week's tough news. I wanted to share a statement that LCV signed onto on Friday with regard to the 5 year plan

Thanks,  
Alex

<https://www.lcv.org/article/as-manchin-pulls-back-on-climate-legislation-groups-urge-biden-administration-to-uphold-climate-commitments-by-finalizing-a-five-year-plan-with-no-new-offshore-leases/>

# AS MANCHIN PULLS BACK ON CLIMATE LEGISLATION, GROUPS

# URGE BIDEN ADMINISTRATION TO UPHOLD CLIMATE COMMITMENTS BY FINALIZING A FIVE-YEAR PLAN WITH NO NEW OFFSHORE LEASES

July 15, 2022 [Press Releases](#)

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FOR IMMEDIATE RELEASE:

Friday, July 15, 2022

Contact: Jorja Rose, [jorja@team-arc.com](mailto:jorja@team-arc.com)

**As Manchin Pulls Back on Climate Legislation, Groups Urge Biden Administration to Uphold Climate Commitments by Finalizing a Five-Year Plan with No New Offshore Leases**

(WASHINGTON, DC) – In light of yesterday’s news that Senator Joe Manchin (D-West Virginia) is ready to walk away from a reconciliation package containing historic investments in climate action, a key pillar of President Biden’s agenda, groups from across the climate movement are calling on the Biden administration to achieve protections for climate, communities, and public health through executive action and federal agencies, including by ensuring the Department of Interior finalizes a Five-Year Program that contains no new offshore drilling leases.

In response to the news, **Earthjustice, Friends of the Earth, League of Conservation Voters, Chispa LCV, Healthy Gulf, the Healthy Ocean Coalition,**

**Oceana, Rachel Carson Council, and Sierra Club** released the following joint statement:

“The unwillingness of Senator Manchin and every single Republican Senator to pass a reconciliation package that includes needed climate action shows that they would rather deliver for the fossil fuel industry than ensure a livable climate for ourselves and future generations. Budget reconciliation is one critical component of President Biden’s bold climate agenda. It’s more important than ever for President Biden and the Department of Interior to finalize a Five-Year Program that contains no new offshore drilling leases. The climate impact of permanently ending new leasing could be the equivalent of taking every car in the country off the road for 15 years. Communities in the Gulf and Alaska see offshore drilling for what it is: a menace to public health, a constant threat to their local economies and livelihoods, and a major driver of the extreme heat, superstorms and flooding that are destroying the places where they live. President Biden must make good on his campaign promises by taking this first major step to put offshore drilling in the past. This is progress his administration can make on its own, and we do not have any more time to waste tackling the climate crisis.”

###

Alex Taurel  
*(He/Him/His)*  
Conservation Program Director  
League of Conservation Voters  
[alex.taurel@lcv.org](mailto:alex.taurel@lcv.org)  
(c) 202-669-1199

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Kendall Dix <kdix@taproot.earth>  
**Subject:** Re: [EXTERNAL] Re: Colette's e-mail?  
**Date:** Thu, 6 Oct 2022 19:24:47 +0000

---

So fast! Thanks so much, Kendall.

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Thursday, October 6, 2022 3:22 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Re: Colette's e-mail?

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi, Marissa.

Colette's email is cpichonbattle@taproot.earth and her phone number is 202.270.2460.

Director lefton called her yesterday about today's announcement, which she really appreciated. Thank you.

On Thu, Oct 6, 2022 at 3:19 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hey Kendall!

Amanda is asking for Colette's e-mail, and I realized I only have her GCCLP one. What is the best e-mail and phone number for her?

Thanks!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

--



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/him

---



- [\(434\) 442-0179](tel:(434)442-0179)
- [kdix@taproot.earth](mailto:kdix@taproot.earth)
- [taproot.earth](http://taproot.earth)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** "beverlyw@dscej.org" <beverlyw@dscej.org>  
**Subject:** Connecting BOEM with Gulf Coast EJ/Underserved communities  
**Date:** Tue, 12 Apr 2022 20:39:05 +0000

---

Hello Dr. Wright,

I hope this e-mail finds you safe and healthy!

I know it's been a while -- we coordinated last March for your participation in the Department of the Interior's oil and gas forum.

An important part of my role here at the Bureau of Ocean Energy Management (BOEM) is implementing the Biden-Harris administration priorities, including delivering environmental justice and benefits to underserved communities. A critical part of these efforts is ensuring that Gulf Coast communities have a seat at the table, transparency, and participation in our decision-making processes regarding energy development offshore in the Gulf of Mexico.

BOEM is embarking on some significant policy and rulemaking processes, and we want to be sure that environmental justice and otherwise underserved communities have meaningful and equitable opportunities to learn what's going on and participate. These processes relate to:

- (1) the development of regulations to govern carbon sequestration offshore in the Gulf of Mexico (as ordered by Congress),
- (2) identification of wind energy areas for offshore wind development in the Gulf of Mexico, and
- (3) development of the next five-year offshore oil and gas leasing program, as required under the Outer Continental Shelf Lands Act.

All three may involve numerous meetings, and we are conscious that capacity and resources may be limited for the time it will take to develop relationships and participate. That's why I'm reaching out in advance, to get advice on the best ways to reach out and engage communities in ways that are inclusive, respectful, and valuable.

Let me know if you have time to connect in the next week or so by phone, e-mail, or video!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities  
**Date:** Fri, 22 Apr 2022 19:51:54 +0000

---

Sounds great, thank you!

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

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**From:** Dustin Renaud <dustin@healthygulf.org>  
**Sent:** Friday, April 22, 2022 3:43 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Marissa,  
I think it would be fine if a couple of your other staffers joined.

I will share those dates and times with partners and line something up early next week. I would love to meet with you all in person but understand if your schedule is too tight.

Stay tuned!

Dustin

On Thu, Apr 21, 2022 at 12:12 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hello Dustin,

That sounds like a great and ideal plan. I may ask a few other BOEM staff to join, if that's all right?

Please let me know when works best for all of you. Next week I'm traveling April 25-28 for a conference, but my Friday, April 29, is very open.

The week after next I will actually be in New Orleans with Director Lefton May 3-5 for another work trip. I don't know our schedule for May 4 (May 5 we're fully booked), but can inquire if you're interested in a virtual or in person meeting that day.

The week of May 9-13 I'll be back in D.C. with a more flexible schedule.

THANK YOU SO MUCH!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management



202.538.2415

[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**From:** Dustin Renaud [dustin@healthygulf.org](mailto:dustin@healthygulf.org)

**Sent:** Thursday, April 21, 2022 12:41 PM

**To:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Subject:** [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

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Hi Marissa,

I would love to meet with you to discuss how BOEM can ensure that Gulf Coast communities have a seat at the table and a voice in decision making. After huddling with some colleagues, I wanted to propose a small group meeting to discuss this. We were thinking me, Kendall Dix (GCCLP's policy director), and Monique Hardin (Deep South Center for Environmental Justice) could best inform your path forward on reaching out to engage communities.

Is that something you would be interested in?

Dustin

On Tue, Apr 12, 2022 at 3:42 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hello Dustin,

I hope this e-mail finds you safe and healthy!

An important part of my role here at the Bureau of Ocean Energy Management (BOEM) is implementing the Biden Harris administration priorities, including delivering environmental justice and benefits to underserved communities. A critical part of these efforts is ensuring that Gulf Coast communities have a seat at the table, transparency, and participation in our decision making processes regarding energy development offshore in the Gulf of Mexico.

BOEM is embarking on some significant policy and rulemaking processes, and we want to be sure that environmental justice and otherwise underserved communities have meaningful and equitable opportunities to learn what's going on and participate. These processes relate to:

- (1) the development of regulations to govern carbon sequestration offshore in the Gulf of Mexico (as ordered by Congress),
- (2) identification of wind energy areas for offshore wind development in the Gulf of Mexico, and
- (3) development of the next five year offshore oil and gas leasing program, as required under the Outer Continental Shelf Lands Act.

All three may involve numerous meetings, and we are conscious that capacity and resources may be limited for the time it will take to develop relationships and participate. That's why I'm reaching out in advance, to get advice on the best ways to reach out and engage communities in ways that are inclusive, respectful, and valuable.

Let me know if you have time to connect in the next week or so by phone, e-mail, or video!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

 [Healthy Gulf](#)

 [Healthy Gulf on Facebook](#)  
 

## **Dustin Renaud**

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176  
**Protect What You Love**

 [Healthy Gulf](#)

 [Healthy Gulf on Facebook](#)  
 

## **Dustin Renaud**

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176  
**Protect What You Love**

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities  
**Date:** Fri, 29 Apr 2022 15:08:25 +0000

---

Also, my Gulf trip was just cancelled with no explanation! I was looking forward to catching some of jazz fest.

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Friday, April 29, 2022 11:06 AM  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Thanks for the e-mails! What is Grace's surname?

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Dustin Renaud <dustin@healthygulf.org>  
**Sent:** Friday, April 29, 2022 10:57 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Hey Marissa,  
I got it. Looking at the invite list, Kendall, Grace, and Monique need to be added. Their emails are below. I'll take a look at the agenda, and we will add in any topics we would like raised next week. Thank you for coordinating this. I hope you have a great weekend, and I hope you have safe travels next week (and maybe catch some Jazz Fest while in New Orleans!).

[kendall@gcclp.org](mailto:kendall@gcclp.org)  
[grace@gcclp.org](mailto:grace@gcclp.org) (may be a placeholder for Colette Pichon Battle)  
[moniqueh@dscej.org](mailto:moniqueh@dscej.org)

In solidarity,  
Dustin

On Fri, Apr 29, 2022 at 9:34 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hey, I just sent the calendar invite for May 13, 12:30-1:30 p.m. Central. The invite has the list of attendees (for now, let me know if I missed anyone), and a draft agenda with a holding place for anything you all want to raise. Appreciate you, have a great weekend!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Sent:** Thursday, April 28, 2022 4 21 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re [EXTERNAL] Re Connecting BOEM with Gulf Coast EJ/underserved communities

We're going to meet next week to discuss what we'd like to see on the agenda. We're definitely watching the CCS rulemaking, and Monique is somewhat of an expert on that topic at this point as she's taken the lead on a group of about 20 Gulf leaders who are watching and responding to CCS right now. So, she should have some good insight

I'll look forward to the calendar invite

Dustin

On Thu, Apr 28, 2022 at 2 26 PM Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov) wrote  
Thanks, Dustin. I will send you the calendar invite that includes the names of the BOEM participants and the Microsoft Teams link.

Are there specific items you would like to see on an agenda?

In addition to the five year program, the BOEM team would like to discuss our approach to engagement with Gulf underserved and EJ communities for other issues like renewable energy development and rulemaking, particularly the rulemaking process we're undertaking for potential carbon sequestration in the Gulf.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Dustin Renaud [dustin@healthygulf.org](mailto:dustin@healthygulf.org)  
**Sent:** Thursday, April 28, 2022 3:12 PM  
**To:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Hi Marissa,  
That sounds perfect. I will put a hold on everyone's calendar for that date and time.

We're excited that BOEM staff are so interested in how to authentically engage Gulf communities, especially those that have seen the most onshore impacts from offshore drilling development

We're eager to see how we can ensure the 5 year plan is truly a plan that will show us a path forward that considers community impacts and draws down our reliance on offshore drilling.

In solidarity,  
Dustin

On Thu, Apr 28, 2022 at 10:36 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

One other thing there's a lot of interest from BOEM, we're at 8 right now, representing those responsible for community outreach and engagement, as well as leadership in the Gulf office. My intention was for this meeting to be friendly and informal, and I think everyone who asked to participate is important for the discussion and excited to meet you all. I just wanted to give you, Kendall, Grace, and Monique a heads up in case there are any concerns about the size of the group and to make sure we're meeting your expectations for the meeting as well.

Thanks again,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Thursday, April 28, 2022 10:52 AM  
**To:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Hello Dustin,

The 11:00 - 2:00 Central window works for me and the folks in our Gulf office that would like to meet you all (virtually) and attend as well, including the Director of our Gulf office.

Let me know if you all have a preferred time, and I can help set up a virtual call. We use the Microsoft Teams platform. Does that work? Also, does an hour sound okay for length?

Thanks again for your help coordinating!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Sent:** Tuesday, April 26, 2022 5:43 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Hi Marissa,  
I've spoken with Kendall & Grace (Gulf Coast Center for Law and Policy) and Monique Hardin (Deep South Center for Environmental Justice). It looks like Friday, May 13 between 11 am and 2 pm, as well as 4 pm central or later work best for all of us. Thanks for your patience to coordinate with these very busy folks. Do any of those times work for you and your team?

I'm also open to meeting up one on one when you're in New Orleans if you'd like.

Thanks for prioritizing outreach with communities in the Gulf that these policies will affect. We look forward to starting this conversation with BOEM

In solidarity,  
Dustin Renaud

On Thu, Apr 21, 2022 at 12:12 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote  
Hello Dustin,

That sounds like a great and ideal plan. I may ask a few other BOEM staff to join, if that's all right?

Please let me know when works best for all of you. Next week I'm traveling April 25-28 for a conference, but my Friday, April 29, is very open.

The week after next I will actually be in New Orleans with Director Lefton May 3-5 for another work trip. I don't know our schedule for May 4 (May 5 we're fully booked), but can inquire if you're interested in a virtual or in person meeting that day.

The week of May 9-13 I'll be back in D.C. with a more flexible schedule.

THANK YOU SO MUCH!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Sent:** Thursday, April 21, 2022 12:41 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,  
I would love to meet with you to discuss how BOEM can ensure that Gulf Coast communities have a seat at the table and a voice in decision making. After huddling with some colleagues, I wanted to propose a small group meeting to discuss this. We were thinking me, Kendall Dix (GCCLP's policy director), and Monique Hardin (Deep South Center for Environmental Justice) could best inform your path forward on reaching out to engage communities.

Is that something you would be interested in?

Dustin

On Tue, Apr 12, 2022 at 3:42 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hello Dustin,

I hope this e mail finds you safe and healthy!

An important part of my role here at the Bureau of Ocean Energy Management (BOEM) is implementing the Biden Harris administration priorities, including delivering environmental justice and benefits to underserved communities A critical part of these efforts in ensuring that Gulf Coast communities have a seat at the table, transparency, and participation in our decision making processes regarding energy development offshore in the Gulf of Mexico

BOEM is embarking on some significant policy and rulemaking processes, and we want to be sure that environmental justice and otherwise underserved communities have meaningful and equitable opportunities to learn what's going on and participate. These processes relate to:

- (1) the development of regulations to govern carbon sequestration offshore in the Gulf of Mexico (as ordered by Congress),
- (2) identification of wind energy areas for offshore wind development in the Gulf of Mexico, and
- (3) development of the next five year offshore oil and gas leasing program, as required under the Outer Continental Shelf Lands Act.

All three may involve numerous meetings, and we are conscious that capacity and resources may be limited for the time it will take to develop relationships and participate That's why I'm reaching out in advance, to get advice on the best ways to reach out and engage communities in ways that are inclusive, respectful, and valuable

Let me know if you have time to connect in the next week or so by phone, e mail, or video!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

--

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[Healthy Gulf on Facebook](#)



**Dustin Renaud**

Communications Director

504 525 1528 x214

228 209 2194 (Cell)

PO BOX 2245

New Orleans, LA 70176

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--

 [Healthy Gulf](#)

**Dustin Renaud**

Communications Director



[Healthy Gulf on Facebook](#)



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## Dustin Renaud

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New Orleans, LA 70176  
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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities  
**Date:** Fri, 29 Apr 2022 15:33:28 +0000

---

Thank you -- I updated the participant list and sent them the invitation.

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Dustin Renaud <dustin@healthygulf.org>  
**Sent:** Friday, April 29, 2022 11:24 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

Kendall Dix  
Grace Treffinger  
Monique Harden, Esq.

On Fri, Apr 29, 2022 at 10:08 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Thanks for the e-mails! What is Grace's surname?

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In solidarity,  
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**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
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Senior Advisor, Bureau of Ocean Energy Management  
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**Sent:** Thursday, April 21, 2022 12:41 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Re: Connecting BOEM with Gulf Coast EJ/underserved communities

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- (2) identification of wind energy areas for offshore wind development in the Gulf of Mexico, and
- (3) development of the next five year offshore oil and gas leasing program, as required under the Outer Continental Shelf Lands Act.

All three may involve numerous meetings, and we are conscious that capacity and resources may be limited for the time it will take to develop relationships and participate. That's why I'm reaching out in advance, to get advice on the best ways to reach out and engage communities in ways that are inclusive, respectful, and valuable.

Let me know if you have time to connect in the next week or so by phone, e mail, or video!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

--

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**Dustin Renaud**

Communications Director

504 525 1528 x214

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New Orleans, LA 70176

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## Dustin Renaud

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## Dustin Renaud

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176

**Protect What You Love**

**From:** Kendall Dix <kdix@taproot.earth>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Current offshore wind capacity  
**Date:** Tue, 2 Aug 2022 18:47:40 -0400

---

Excellent, thank you so much. I know IRA probably put a wrench in your gears just like the rest of us. We're all scrambling.

On Tue, Aug 2, 2022 at 6:00 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

You're welcome, happy to help. I know that we owe you a response on the potential in-person meeting in the Gulf for the Proposed Program. I am pushing for a response and should be able to circle back soon.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Tuesday, August 2, 2022 5:54 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Current offshore wind capacity

OK, thanks so much for the clarification and for getting back to me so quickly!

On Tue, Aug 2, 2022 at 5:54 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

That is total generating capacity assuming that all areas leased are actually developed and that the projects developed on those leases actually meet that capacity. It's not quite accurate to say that we've leased that amount as the number is theoretical and will depend on the projects submitted and approved.

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Tuesday, August 2, 2022 5:36 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Current offshore wind capacity

I was looking at the bottom of F-124 (p. 126 on my pdf reader). There's a figure that says "OCS total: 36,065 Generating Capacity (MW)."

On Tue, Aug 2, 2022 at 5:33 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hey Kendall,

You may have to point me to the exact reference. Right now there is less than 0.5 GW of installed capacity on the OCS for offshore wind. Since the beginning of the administration, we have approved two

projects (Vineyard Wind and South Fork), totaling 0.93 GW (800 MW for Vineyard Wind and 130 MW for South Fork) We are currently reviewing another 10 projects which, if approved, could total 16 GW by 2025, with the goal of 30 GW by 2030

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Sent:** Tuesday, August 2, 2022 5:04 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Current offshore wind capacity

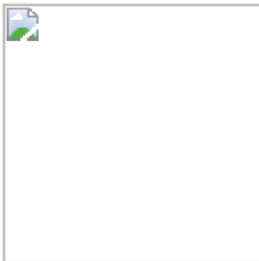
**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa. I was looking at this report:

[https://www.boem.gov/sites/default/files/documents/renewable\\_energy/state\\_activities/Ocean\\_Wind1\\_DEIS-App-F-Planned-Activities-Scenario.pdf](https://www.boem.gov/sites/default/files/documents/renewable_energy/state_activities/Ocean_Wind1_DEIS-App-F-Planned-Activities-Scenario.pdf)

Am I reading this correctly that BOEM has already leased 36 gigawatts of offshore wind capacity?

Thanks,  
Kendall



**Kendall Dix**

National Policy Director  
Taproot Earth  
he/him



■ (434) 442 0179  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](http://taproot.earth)



*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

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*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

**From:** David Shadburn <dshadburn@lcv.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] David/Marissa Connect

**Date:** Fri, 8 Jul 2022 19:07:15 +0000

**Importance:** Normal

**Attachments:** unnamed

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Let me know if you'd rather use zoom or something, happy to set that up.

**Event:** [EXTERNAL] David/Marissa Connect

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**Start Date:** 2022-07-11 16:00:00 +0000

**End Date:** 2022-07-11 16:30:00 +0000

**Organizer:** David Shadburn <dshadburn@lcv.org>

**Location:** David call Marissa's cell, 202.538.2415

**Class:** X-PERSONAL

**Date Created:** 2022-07-08 19:07:27 +0000

**Date Modified:** 2022-07-08 19:07:27 +0000

**Priority:** 5

**DTSTAMP:** 2022-07-08 19:07:14 +0000

**Attendee:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Alarm:** Display the following message 15m before start

| Reminder

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Let me know if you'd rather use zoom or something, happy to set that up.

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** David Shadburn <dshadburn@lcv.org>

**Subject:** Accepted: [EXTERNAL] David/Marissa Connect

**Date:** Fri, 8 Jul 2022 19:08:16 +0000

**Importance:** Normal

**Attachments:** unnamed

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**Event:** Accepted: [EXTERNAL] David/Marissa Connect

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**Start Date:** 2022-07-11 16:00:00 +0000

**End Date:** 2022-07-11 16:30:00 +0000

**Location:** David call Marissa's cell, 202.538.2415

**Class:** X-PERSONAL

**Comment:**

**Date Created:** 2022-07-08 19:08:19 +0000

**Date Modified:** 2022-07-08 19:08:19 +0000

**Priority:** 5

**DTSTAMP:** 2022-07-08 19:08:15 +0000

**Attendee:** David Shadburn <dshadburn@lcv.org>

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: BREAKING: President Biden Announces Offshore Leasing Proposal

**Date:** Fri, 1 Jul 2022 22:03:52 +0000

**Inline-Images:** image001.jpg

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FYI

**From:** Matheny, Austin <amatheny@oceana.org>

**Sent:** Friday, July 1, 2022 6:02 PM

**To:** OceanaPressReleases <OceanaPressReleases@oceana.org>; offshore drilling <offshoredrilling@oceana.org>

**Subject:** BREAKING: President Biden Announces Offshore Leasing Proposal



**PRESS RELEASE**

1025 Connecticut Ave., NW Suite 200  
Washington, DC 20036

**P** +(202) 833-3900

**F** +(202) 833-2070

**OCEANA.ORG**

**For Immediate Release:** July 1, 2022

**Contacts:** Austin Matheny, [amatheny@oceana.org](mailto:amatheny@oceana.org), 858.395.5577  
Dustin Cranor, [dcranor@oceana.org](mailto:dcranor@oceana.org), 954.348.1314

## **President Biden Announces Offshore Leasing Proposal**

*Oceana calls on President Biden to fulfill his promise to end new offshore drilling*

**WASHINGTON** — Today, the Biden-Harris administration [announced the proposal](#) for the nation's Outer Continental Shelf (OCS) Oil and Gas Leasing Program for 2023-2028. The Proposed Program calls for up to ten potential sales in the Gulf of Mexico and one potential lease sale in the Cook Inlet Planning Area off Alaska's coast.

During his presidential campaign, President Biden [pledged](#) to end new leasing for offshore drilling. According to the International Energy Agency, nations must [stop developing new oil and gas fields](#) if global warming is to stay within relatively safe limits.

In response to the president's proposed five-year plan, Oceana campaign director Diane Hoskins issued the following statement:

"It's disappointing that President Biden is still considering new lease sales, but we're encouraged that the president put forward a no-new-leasing option. The inevitable conclusion must be finalizing a program that ends new leasing for offshore drilling. New leases are incompatible with efforts to address the climate crisis and won't

help lower gas prices. We know that more leasing for dirty and dangerous offshore drilling and spilling threatens our ocean, climate, and economy.

“The oil and gas industry is lying when they say new leases will help gas prices. Even the previous administration agreed that new leases won’t likely produce oil for more than 10 years. It’s ridiculous to sell more leases when oil companies are not even developing the leases they already have. Oil companies own [over 8 million acres of unused leases](#), or 75% of the total leased acreage of public waters. Ending new leasing for offshore drilling is a vital step to tackle the climate crisis and protect millions of jobs that rely on a healthy ocean.

“But our oceans can be a part of the clean energy solution through responsibly developed offshore wind. We are counting on President Biden to keep his promise and finalize a plan with no new oil and gas lease sales.”

The Trump administration’s [previous drilling plan](#) confirmed that new leases will not help gas prices, [stating](#) that production “in newly available OCS areas will likely not occur for a decade or more,” and new leasing “cannot provide resources to quickly mitigate the effects of a national energy emergency.”

A recent [Oceana analysis](#) found that permanent offshore drilling protections for all unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions. That is the equivalent to taking every car in the United States off the road for the next 15 years. The analysis also found that permanent protection in all unleased federal waters could prevent more than \$720 billion in damages to people, property, and the environment.

Earlier this year, the Department of the Interior canceled the Cook Inlet lease sale, [citing lack of industry interest](#).

For more information about Oceana’s efforts to stop the expansion of offshore drilling, please [click here](#).

*Oceana is the largest international advocacy organization dedicated solely to ocean conservation. Oceana is rebuilding abundant and biodiverse oceans by winning science-based policies in countries that control one-third of the world’s wild fish catch. With more than 225 victories that stop overfishing, habitat destruction, pollution, and the killing of threatened species like turtles and sharks, Oceana’s campaigns are delivering results. A restored ocean means that 1 billion people can enjoy a healthy seafood meal, every day, forever. Together, we can save the oceans and help feed the world. Visit [www.usa.oceana.org](http://www.usa.oceana.org) to learn more.*

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** David Shadburn <dshadburn@lcv.org>, "Romero, John D." <John.Romero@boem.gov>  
**Subject:** Re: [EXTERNAL] FW: LCV and California Environmental Voters Statements on Historic California Offshore Wind Lease Sales  
**Date:** Wed, 7 Dec 2022 20:44:27 +0000

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Thanks very much, David!

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

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**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Wednesday, December 7, 2022 3:42 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Romero, John D. <John.Romero@boem.gov>  
**Subject:** [EXTERNAL] FW: LCV and California Environmental Voters Statements on Historic California Offshore Wind Lease Sales

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Hi Marissa and John,

Congrats on completing these historic offshore wind lease sales! Sharing statements from the League of Conservation Voters and our state affiliate California Environmental Voters here.

Thank you for your continued commitment to offshore wind!

-David

--  
David Shadburn (he/him)  
Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078

<https://www.lcv.org/article/lcv-and-california-environmental-voters-statements-on-historic-california-offshore-wind-lease-sales/>

**For Immediate Release**

December 7, 2022

**Contact:** Emily Samsel, [esamsel@lcv.org](mailto:esamsel@lcv.org) | Erika Guzman Cornejo, [erika@envirovoters.org](mailto:erika@envirovoters.org)



## **LCV and California Environmental Voters Statements on Historic California Offshore Wind Lease Sales**

**Washington, D.C. and Los Angeles, CA** In response to today's historic \$757 million offshore wind lease sales off the coast of California, the first ever off of the West Coast, the League of Conservation Voters (LCV) and California Environmental Voters issued the following statements:

### **LCV Government Affairs Advocate David Shadburn said:**

“Today's historic California offshore wind lease sales are a massive win for people and the planet it's more clear than ever that our future is in clean, renewable energy. Thanks to President Biden and the Bureau of Ocean Energy Management, Californians can look forward to thousands of new, good paying union jobs and lower energy costs in the years to come. We especially appreciate the administration's thoughtful stakeholder engagement and environmental review processes to ensure any potentially impacted communities are part of their decision making.”

### **California Environmental Voters Political and Organizing Director, Mike Young said:**

“California is making historic strides toward ending our dependence on fossil fuels and towards the necessary pathway to carbon neutrality. Today's offshore wind lease sales are a testament that hardworking people in the construction trades are an essential part of achieving our goal of 100% clean energy by 2045 This effort will complement the state's solar energy resources, providing clean energy even after the sun goes down and bringing us closer to a clean energy future ”

###

**From:** Katherine Tsantiris <ktsantiris@oceanconservancy.org>

**To:** "elizabeth.klein@boem.gov" <elizabeth.klein@boem.gov>, "Isis.Farmer@boem.gov" <Isis.Farmer@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Cc:** Rachael DeWitt <rdewitt@oceanconservancy.org>, Will Fadely <wfadely@cassidy.com>, Anna-Marie Laura <alaura@oceanconservancy.org>

**Subject:** [EXTERNAL] Following up and Thank you from OC!

**Date:** Tue, 2 May 2023 19:05:21 +0000

**Attachments:** Ocean\_Conservancy-Mod\_Rule\_comments.pdf;  
2022.10.06\_Ocean\_Conservancy\_5YP\_Comment\_Letter.pdf

**Inline-Images:** image001.jpg

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Good afternoon,

I just wanted to follow up to thank you all for taking the time to meet with us yesterday. We appreciated the discussion and enjoyed having the opportunity to share more about our work on clean ocean energy. I wanted to follow up with a few items that we mentioned yesterday. I've attached our comments on the Renewable Energy Modernization Rule, which we submitted yesterday afternoon. In addition, I am attaching our comments on the Five Year Plan. As we touched on, our high level ask – given the challenging connection between offshore wind and oil and gas – can be summed up by the following statement from our comment letter: *"If BOEM opts to include any oil and gas lease sales in 2023–2028 National Leasing Program, those lease sales should be the minimum required to sustain build-out of responsibly sited offshore wind facilities pursuant to section 50265 of the Inflation Reduction Act of 2022."*

It was great to talk to you about the Global Offshore Wind Alliance as well. For reference, here is our press release on joining: <https://oceanconservancy.org/news/ocean-conservancy-first-ngo-join-global-offshore-wind-alliance/>.

And Marissa, you also expressed interest in our ocean justice work. We would be happy to follow up to connect you with our team or discuss our work on ocean justice further!

Thank you all again for a productive conversation yesterday and we look forward to being a resource to you moving forward.

Best,  
Kathy



Katherine Tsantiris  
she/her/hers  
Associate Director, Government Relations  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O: 202.280.6259  
M: 860.712.8946



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202.429.5609 Telephone  
202.872.0619 Facsimile  
www.oceanconservancy.org

May 01, 2023

Kelley Spence  
Office of Regulations  
Bureau of Ocean Energy Management  
Department of the Interior  
45600 Woodland Road  
DIR-BOEM, Sterling, VA 20166

RE: Comments on BOEM Renewable Energy Modernization Rule, Docket No. BOEM-2023-0005

Dear Ms. Spence:

On behalf of Ocean Conservancy<sup>1</sup>, thank you for the opportunity to comment on the Bureau of Ocean Energy Management's (BOEM) draft Renewable Energy Modernization Rule. Ocean Conservancy supports a rapid, responsible, and just transition away from fossil fuels to a clean energy future.<sup>2</sup> Well-planned, responsibly sited offshore wind is a critical part of the renewable energy mix needed to achieve this transition.

We support the Biden Administration's goal of deploying 30 gigawatts (GW) of offshore wind by 2030. Regulatory changes proposed in BOEM's Renewable Energy Modernization Rule will help ensure offshore wind energy advances climate mitigation goals, provides benefits to communities, and minimizes adverse environmental impacts.

Ocean Conservancy supports BOEM's rulemaking proposal to:

- Eliminate unnecessary requirements for deployment of meteorological buoys;
- Codify the use of Project Design Envelopes in Construction and Operations Plan (COP) submissions;
- Provide for increased flexibility with respect to required site surveys;

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<sup>1</sup> Ocean Conservancy is a nonprofit marine conservation organization. Ocean Conservancy works to protect the ocean from today's greatest global challenges. We create knowledge-based solutions for a healthy ocean and the wildlife and communities that depend on it.

<sup>2</sup> Section 50265 of the Inflation Reduction Act links the issuance of future offshore wind permits to continued oil and gas leasing. Ocean Conservancy opposes new OCS oil and gas lease sales. BOEM should offer additional OCS oil and gas lease sale(s) only if it is absolutely necessary to facilitate a rapid, responsible and just build-out of offshore wind capacity. If BOEM offers additional offshore oil and gas leases as a means to facilitate offshore wind development, it should limit the number and size of the oil and gas lease sales to the minimum necessary under the terms of Sec. 50265.

- Establish a Public Renewable Energy Leasing Schedule;
- Enhance BOEM’s authority to use multifactor bidding to increase stakeholder engagement during planning; and
- Allow for a staged-funding approach towards offshore wind decommissioning activities.

We also outline other concepts BOEM should consider in the final rulemaking and other administrative policies related to offshore renewable energy. **We encourage BOEM to finalize the Renewable Energy Modernization Rule by the end of 2023.**

The sections that follow provide additional detail. Section I provides context for our support of BOEM’s proposed rule changes. Sections II through VIII address specific sections of the rulemaking and offer additional related considerations and recommendations. Section IX raises other key issues BOEM should consider in this rulemaking and future changes to policy or guidance.

#### **I. Modernizing the permitting process for offshore renewable energy is a critical step on the path toward a clean energy transition.**

Meeting our clean energy goals will require a dramatic increase in the pace and scale of offshore wind development and a rapid phase out of oil and gas operations. Ocean Conservancy is committed to a rapid, responsible, and just transition to 100% Clean Ocean Energy by 2050. This means dramatically accelerating and scaling up offshore wind development and other marine renewables while phasing out offshore oil and gas production, in a way that protects the ocean and coastal communities. Modernization of the offshore wind planning and permitting process will facilitate climate mitigation targets by clarifying and advancing the process based on lessons learned and the increasing technological advances of the industry.

Some of the most serious impediments to progress on offshore wind are driven by questions of tradeoffs among current and proposed uses of ocean space and resources, and a variety of legal, regulatory, and procedural obstacles that must be addressed through the planning and permitting process. Regulations governing planning and permitting must be designed not only to facilitate progress towards offshore wind and climate mitigation goals, but also to benefit communities, ensure workplace safety, and minimize impacts to marine and coastal ecosystems.

Improving the efficiency and effectiveness of the planning, engagement, permitting and monitoring framework—as proposed in this rulemaking and suggested in additional topics for current and future agency action—will also provide the increased certainty developers need to successfully deploy offshore wind at the scale and in the timeframe needed to meet our shared clean energy goals.

In addition, the transition to a clean energy economy provides an immense opportunity for communities that did not benefit from previous economic transformations. This rulemaking allows for BOEM to address these past injustices towards historically disadvantaged communities which are often communities of color, and provide them with employment opportunities in the growing offshore wind sector and its supply chain.

For all these reasons, we support the proposed rule changes advanced in BOEM’s draft Renewable Energy Modernization Rule. We offer more detailed comments on the proposed rule changes—along with additional recommendations for the final rulemakings and any changes to future policy and guidance—in Sections II through VIII below.

## **II. Site Assessment: Eliminating Site Assessment Plans for meteorological buoys**

Ocean Conservancy endorses BOEM’s proposal to eliminate Site Assessment Plans (SAPs) for meteorological (met) buoys. With the advancement of numerous offshore wind projects since the original 2009 wind regulations and the substantial technological advancements that continue to occur throughout the wind industry and ocean observing systems, experience has demonstrated the need for BOEM to update its regulations. Instead of prescriptive standards for outdated meteorology towers, we support the proposed regulation change. In general, we urge BOEM to move toward fewer technology-specific requirements for applications, recognizing that technology advances faster than regulatory revisions. The recommendation to move from SAPs toward site characterization, among others, was highlighted in the Ocean Conservancy and Perkins Coie [Policy to Power](#) report. We are pleased to see the recommendation reflected in BOEM’s rulemaking.

### *Additional Considerations and Recommendations for the Permitting Stage for the Final Rule:*

As BOEM considers additions to this proposed rulemaking as well as changes to policy and guidance regarding SAPs, we encourage the agency to focus on the process of how the applicant’s plans will be reviewed by BOEM and other agencies with jurisdiction.

- *Developing guidelines for site characterization:* As BOEM moves away from prescriptive standards related to technology, we encourage the development of site characterization guidelines. Currently, the site characterization process occurs informally with multiple project-specific elements coordinated by the project proponent and authorized by a variety of agencies. For example, National Marine Fisheries Service (NMFS) authorization of low-level harassment of marine mammals may be an essential element of the collection of geophysical and geotechnical information in site characterization. Rather than leave this aspect of the authorization process to developers to negotiate, we recommend that the proposed rule provide for coordination with NMFS. Ideally, BOEM and NMFS should be able to rely on an Endangered Species Act (ESA)/ Marine Mammal Protection Act (MMPA) programmatic approach that advances species conservation interests and thoughtful development of COPs. Explicit provisions for this coordination may improve coordination now rather than await another rulemaking.

## **III. Project Design Envelope**

BOEM’s proposed rule would codify the use of project design envelopes (PDE) and would clarify that lessees and grant holders may submit plans using a PDE approach. Ocean Conservancy supports this

proposed change, with the understanding that the PDE will remain narrow enough to require meaningful analysis of reasonably foreseeable impacts.

*Additional Considerations and Recommendations for the Final Rule:*

As BOEM formalizes the project design approach, the agency should advance mitigation and monitoring commitments that move toward a programmatic framework for assessing the cumulative effects of offshore wind power projects. Adaptive management is particularly appropriate where environmental review and mitigation requirements are based on impact assessments that are likely to overestimate impacts to allow for technological improvements during the permitting and construction processes. Offshore wind project technology is rapidly evolving, and, as a result, adaptive management is particularly relevant. BOEM is now allowing developers to describe their projects using general parameters of a project- design envelope to address technological uncertainties at the time of submittal of a COP. Left unchecked, the assumed cumulative effects of offshore wind development may require project proponents and regulators to assume impacts that could be better informed by a program of monitoring and adaptation of management actions. We have included additional recommendations on the identification of Wind Energy Areas in Section IX.

#### **IV. Geophysical and Geotechnical Surveys**

BOEM proposes rule changes that would clarify COP data requirements and provide additional flexibility. Existing regulations require lessees to conduct geotechnical surveys before COP submission. The proposed change would shift from largely prescriptive standards toward performance-based standards that allow lessees additional flexibility at the COP stage.

Ocean Conservancy supports this proposed rule change. Increased flexibility will better accommodate technological changes and would allow for more nuanced siting decisions that will help balance and accommodate other ocean uses and reduce conflicts. Experience in permitting so far has demonstrated a need for developers to limit upfront survey work and investment. When developers are required to invest too much at the front end of a project, they retain less ability and willingness to adapt project designs. Offshore wind will be successful when a balance of climate mitigation potential, environmental and cultural protection, and ocean use conflicts are found. This proposed change moves toward achieving that balance.

*Additional Considerations and Recommendations for the Final Rule:*

- *Guidance on best practice for geotechnical and geophysical surveys:* BOEM notes its intention to revise guidelines that recommend best practices for geotechnical and geophysical surveys. The agency suggested that in doing so, it “could recommend, as a best practice, that developers coordinate early with relevant agencies on applicable site characterization plans, before surveys occur.” We support proposed updates to the guidelines and additional BOEM actions within the final rule that advance early interagency coordination among states and federal agencies. At a minimum, BOEM could include guidance in the preamble to the final rule that explains intent for implementation of interagency coordination. BOEM should also implement a pre-application

approach to help frame a well-designed proposal before it is submitted for agency review. Advancing a pre-application process would provide a common means for an authorizing agency to work with a prospective applicant to help frame a well-designed proposal before it is submitted for agency review. Pre-application processes could include the collection of information, coordination with stakeholders, communities, and Tribes, and informally “scoping” the environmental review process that is formalized through a public notice of intent to prepare an environmental document.

- *Archaeological resource surveys:* BOEM’s proposed rule change would allow lessees to defer subsea archaeological resource data submission. If BOEM makes this proposed change, we encourage BOEM to work proactively with lessees to facilitate agreements or memoranda of understanding among National Historic Preservation Act (NHPA) Section 106 consulting parties to establish strong communication channels and to consider procedures and policies designed to avoid or mitigate impacts to archaeological resources. Physical impacts to submerged historic properties can typically be avoided by adjusting the locations of project facilities in the final engineering design for the project prior to construction. We encourage appropriate avoidance protocols incorporated into Programmatic Agreements governing project authorizations. For example, participation of State Historic Preservation Officers and Tribal Historic Preservation Officers may take the form of a Programmatic Agreement. At the pre-leasing stage, the essential elements would include a commitment to compliance with the NHPA and related authorities, identification of specific individuals tasked with reviewing and acting on information defined as necessary for consultation, and an indicative schedule based on an expected date of BOEM’s lease decision that would serve as a guide to the resources and timing necessary to conduct consultation throughout the permitting process. Above all, a commitment to earlier conversations and engagement with Tribes, communities, and other ocean users as Wind Energy Areas are developed will ensure impacts to marine, historic, and cultural areas are reduced.
- *Data sharing related to survey activities and research:* BOEM solicits comments related to a potential future rulemaking intended to regulate surveys associated with Outer Continental Shelf (OCS) renewable energy activities. We urge BOEM to require OCS operators, to the greatest extent possible, to share and make available to the public the survey data collected. Coordination of survey activities and research as well as requirements to share all non-proprietary biological and oceanographic data would significantly advance our understanding of the ocean while providing the ability to better adaptively manage offshore wind development (*also noted above related to cumulative impacts and PDE*). There are many existing frameworks within BOEM and NOAA (Marine Cadastre), other federal agencies (Army Corps of Engineers), and other regional entities (Regional Ocean Partnerships and the Integrated Ocean Observing System) that offer models to build developer data sharing and associated platforms. Models from the healthcare industry related to privacy as well as cultural resource data sharing subject to protections under the National Historic Preservation Act Section 304 offer additional lessons learned to advance public data sharing. Offshore wind energy companies that have been granted leases are required to submit extensive survey data as part of site assessment and development of COPs. Regulations allow for BOEM to publish such data as long as it does not result in “substantial competitive harm or disclosure of trade secrets.”<sup>3</sup> For proprietary data, an embargo of three years is applicable, after which BOEM can publish such data if the harm no

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<sup>3</sup> 30 CFR 585.113(b).



longer persists.<sup>4</sup> As the work for the Regional Wildlife Science Collaborative for Offshore Wind, Responsible Offshore Science Alliance, and other relevant entities advance, BOEM should advance lease stipulations in the final rule requiring research coordination and, where feasible, coordination of survey activities.

## **V. Public Renewable Energy Leasing Schedule**

Existing regulations do not require or suggest that BOEM produce a renewable energy leasing schedule. The draft rule currently proposes a commitment to a Public Renewable Energy Leasing Schedule that includes a five-year time horizon, a commitment to adjust the schedule every two years, and a listing of locations under consideration for leasing.

Ocean Conservancy supports inclusion of a Public Renewable Energy Leasing Schedule in the regulations. Such a schedule would benefit coastal managers, communities, Tribes, and other stakeholders by allowing them to better plan for offshore wind development in their local communities or in their business operations.

A five-year leasing schedule will also assist with forecasting supply chain needs for the offshore wind industry. According to the National Renewable Energy Laboratory (NREL) 2022 report, [“The Demand for a Domestic Offshore Wind Energy Supply Chain,”](#) approximately 2,100 wind turbines will be needed in U.S. waters to produce 30 GW of electricity by 2030. A robust supply chain will be necessary to facilitate this growth. NREL estimates that 34 major component manufacturing facilities will be required, each of which could take between three and five years to engage local stakeholders, plan operations, obtain permits and complete construction. Understanding BOEM’s vision for leasing will help advance the planning needed and create certainty to facilitate commitments to manufacturing.

Workforce development is also a critical component needed to advance the buildout of offshore wind and would benefit from the proposed leasing schedule. NREL produced another report in 2022 entitled [“U.S. Offshore Wind Workforce Assessment”](#) estimating future workforce needs of between 15,000 and 58,000 full-time employees per year nationally for direct and indirect offshore wind jobs spanning from 2024 to 2030, depending on domestic content requirements. A five-year leasing schedule will assist with planning these future job and workforce opportunities in an equitable and inclusive manner, and that they can be efficiently sequenced across the country.

### *Additional Considerations and Recommendations for Leasing in the Final Rule:*

- *Inflation Reduction Act Requirements:* As BOEM notes in the proposed rule, Section 50265 of the Inflation Reduction Act links the issuance of future offshore wind permits to continued oil and gas leasing. Ocean Conservancy opposes new OCS oil and gas lease sales. BOEM should offer

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<sup>4</sup> *Id.*

additional OCS oil and gas lease sale(s) only if it is absolutely necessary to facilitate a rapid, responsible and just build-out of offshore wind capacity. If BOEM offers additional offshore oil and gas leases as a means to facilitate offshore wind development, it should limit the number and size of the oil and gas lease sales to the minimum necessary under the terms of Sec. 50265.

## **VI. Lease Issuance Procedures: Multifactor Bidding**

BOEM's rulemaking would continue to allow multiple-factor auctions that would allow consideration of various priorities. Current regulations allow BOEM to use multifactor bidding to determine the winner of auctions for OCS renewable energy leases. We support the use of multifactor bidding that seeks to advance workforce training, supply chain development, community benefit agreements, and avoiding or minimizing impacts to the marine environment. Under the proposed draft rule BOEM may take into account one or more non-monetary factors. These include:

“(1) power purchase agreements; (2) eligibility for, or applicability of, renewable energy credits or subsidies; (3) development agreements by a potential lessee that facilitate shared transmission solutions and grid interconnection; (4) technical merit, timeliness, financing and economics, environmental considerations, public benefits, or compatibility with State and local needs; (5) agreements or commitments by the developer that would facilitate OCS renewable energy development or other OCS Lands Act goals; or (6) any other factor or criteria to further development of offshore renewable energy in a sustainable and environmentally sound manner, as identified by BOEM in the PSN and FSN.”

Ocean Conservancy supports multifactor bidding being included in the final rule. BOEM should further promote creditable stakeholder agreements as a means of avoiding conflicts, especially those that seek to avoid conflicts, improve coordination in project approvals, recognize the value of developer engagement with Tribes, communities, and stakeholders, and those that prioritize data sharing, local needs, regional scale conservation, and/or the adoption of technological solutions that address wildlife impacts.

BOEM should explore additional multifactor bidding credits to advance community investment, support for domestic content, or investment in environmental research and monitoring that reduce critical uncertainties or advance ocean and coastal conservation objectives.

Moving forward BOEM should revise its leasing process to provide a competitive advantage to those project proponents that demonstrate their commitment to collaboration and conflict resolution with governments and ocean-user groups early in the permitting process. BOEM should give greater credit to binding agreements in advance of lease auction over promises to develop agreements based on an awarded lease. To incentivize this stakeholder engagement, we recommend BOEM establish specific criteria, and a facilitated process with communities and/or community groups that manages what could otherwise be a heavy burden of engagement with multiple bidders, for attaining bidding credits. These include agreements to consult with relevant labor unions, ocean user groups, community groups, and industry representatives to ensure use of the bidding credit results in high-quality job creation and

accessible pathways to family-sustaining careers, minimize negative impacts to existing marine economic activities such as fishing, and advance equity, civil rights, racial justice, and equal opportunity goals of the federal government.

## **VII. Risk Management and Financial Assurance**

Proposed revisions to decommissioning regulations that allow staged funding of decommissioning accounts would facilitate a rapid deployment of offshore wind facilities by removing some of the upfront burden on leaseholders. BOEM highlights important differences between offshore wind facilities and conventional offshore oil and gas facilities, noting that offshore wind facilities are more predictable in terms of production and revenue. BOEM also contends risks associated with this staged approach are minimal when the agency retains the option to require full funding of a decommissioning account in high-risk cases, when the industry has a demonstrated track record of solvency in other regions, and when an insolvent lessee would likely be able to transfer functional assets to a different solvent operator. Ocean Conservancy agrees with these assessments and supports the staged-funding approach. That said, BOEM should monitor this approach carefully to ensure these assumptions hold true and to ensure risks to taxpayers remain low. In all cases, BOEM must ensure that lessees fully fund their decommissioning accounts in advance of the initiation of the decommission phase of the project.

## **VIII. Support for other Proposed Rule Changes**

### **a. Certified Verification Agents:**

Ocean Conservancy supports Certified Verification Agent review into the design and permitting process to encourage safety and best engineering practices as well as efforts to further strengthen safety within this process.

### **b. Civil Penalties:**

Ocean Conservancy supports BOEM's proposal to add a new paragraph (f)(2) to Section 585.400 that would explicitly authorize the agency to assess civil penalties for violations that "may constitute, or constituted, a threat of serious, irreparable, or immediate harm or damage to life (including fish and other aquatic life), property, or the marine, coastal or human environment."

## **IX. Considerations for Final Rulemaking Related to Offshore Renewable Energy**

Ocean Conservancy encourages BOEM to address a number of additional issues in the final rulemaking.

### *Identification of Wind Energy Areas*

Comprehensive planning ahead of the identification of Wind Energy Areas will be critical for offshore wind to be successful in the long-term. Conflicts with fisheries, maritime interests, defense, cultural areas, and conservation can be greatly reduced ahead of future Wind Energy Area identification. BOEM should formally seek government-to-government consultations with Tribal sovereigns and should use

the regional ocean planning process to ensure informed siting decisions that balance the needs of states, federal agency missions and objectives, ocean users, Tribal governments, communities, and the Fishery Management Councils. Regional ocean planning and offshore renewable energy have largely undergone separate processes until this point. We encourage BOEM to advance regional-scale planning to identify and address Wind Energy Area conflicts upfront ahead of future lease sales and with those Wind Energy Areas in various development stages to ensure the 30 GW by 2030 goal is met.

### *Coordination Framework*

BOEM leadership to guide government and public coordination prior to required public comment periods would create efficiencies that would benefit all participants in the environmental review and authorization processes. For each Wind Energy Area, BOEM should identify the federal and state agencies, Tribal governments, underserved communities, scientists, ocean users, and other stakeholders that have a leading role to play in the permitting process. That list of recognized groups, including those from ports and maritime interests, commercial and recreational fishing, conservation groups, historic and cultural preservation groups, community leaders, and other non-governmental organizations, can serve as the basis for the outreach by prospective bidders to develop an agreement for coordination of environmental review and authorization processes. The core of any list would be BOEM's Intergovernmental Renewable Energy Task Forces, which are made up of representatives from federal, state(s), and local agencies and Tribal governments. However, the list should be broadened to include ocean users, communities, and other interests that have a stake in the planning process and will play an important role in the siting, alternatives analysis, mitigation, and monitoring of offshore wind development in the area under consideration.

A BOEM coordination framework can provide prospective developers and users with an efficient means of establishing a well-defined relationship that is recognized by BOEM, commits the parties to no more than efficient coordination in the event that the lease is awarded to the developer and avoids the inefficiencies of identifying and negotiating with individual user groups. State, federal, Tribal, and local governments with jurisdiction over aspects of the proposed development should use a coordination agreement to identify terms and conditions for their authorization of the proposal, including applicable legal standards, information needs, and specific commitments for timely communications.

At the site assessment stage, this type of coordination framework established before the lease sale would provide value by helping solidify working relationships that will be needed in formal scoping for the COP Environmental Impact Statement (EIS). Early involvement in the data collection at the site assessment stage can ensure that information needed for the COP EIS and related authorization requirements have been addressed early and efficiently.

### *Cumulative Effects*

While the scope of review for cumulative effects varies from law to law, on the federal side, cumulative effects must be considered under NEPA, the ESA, and the MMPA. Thus, the approach used for cumulative effects analysis should be useful for multiple purposes. The current approach looks at cumulative effects for each project as it goes forward through permitting.

An alternative to the current approach would use regional ocean planning to develop a comprehensive, stand-alone analysis of cumulative effects for all the proposed and anticipated projects within a defined region. Such a review could take the form of a programmatic NEPA document, in support of specific program-level decisions to restore and protect healthy ecosystems, or even a stand-alone impact analysis that can be incorporated by reference in subsequent NEPA analyses but is not itself a decision document that must be analyzed in an EA or EIS. This approach would be particularly appropriate in areas that lack a substantial continental shelf, including the Gulf of Maine and Pacific, where the deployment of floating wind power technology presents potential impacts and analysis of alternatives that differ from previous experience. Preparing such a report would have the advantage of presenting a single source of information and analysis that looks at the ecosystem-wide effects of multiple projects occurring at essentially the same time within the same region. As needed, unique factors associated with individual projects could then be considered in each site-specific EIS. While preparing such a report would need to have a clear relationship to ongoing individual project reviews, it could save considerable time in subsequent environmental impact reviews for individual projects and provide improved information over what could be developed on a project-by-project basis. This trade-off of time investment upfront is worthwhile from the perspective of a national offshore wind program that seeks to authorize numerous projects while balancing environmental and biodiversity needs throughout a vast area of U.S. offshore waters. This programmatic approach would also identify areas with the least environmental impact while also providing greater transparency in the selection process.

### *Transmission*

BOEM is soliciting comments on regulatory changes that could minimize impacts from, and maximize the utility of, interconnection and transmission. (FR notice Part L). We urge BOEM to address transmission planning in the final rulemaking and appreciate the inclusion of more comprehensive transmission planning as part of the multifactor bidding section. Achieving public policy targets for offshore wind capacity will require significant investment in electric transmission infrastructure. While there are proven technological solutions for interconnecting offshore power generation to the onshore grid, planning and executing transmission strategies entails unique challenges compared to siting transmission lines onshore. Transmission infrastructure will impact the ocean environment as well as the coastal environment where an interconnection line makes landfall and reaches the broader power grid. Enhanced coordination and planning will improve opportunities for shared transmission infrastructure, reducing the number of shore connections and associated environmental impacts ultimately leading to maximizing our decarbonization potential. Through its rulemaking, BOEM should

work to enhance the transmission planning process for offshore wind with improved environmental outcomes at the siting stage.

As the pace of offshore wind power development has shown, a foundational problem not addressed by the current planning and permitting process has been the lack of any connection in the BOEM regulations to the transmission planning processes of the regional transmission organizations that manage the electric grid. BOEM should revise its planning processes to identify specific contributions from the Department of Energy, Federal Energy Regulation Commission, and Regional Transmission Office/Independent System Operators as an integral part of the planning and authorization process. Because offshore wind power will never be developed if it lacks a transmission system with the capacity to manage this new source of power generation, the managers of the nation's electric grid cannot be included in environmental review and authorization processes as just another "agency with jurisdiction."

BOEM should actively promote transmission planning in cooperation with the authorities that will ultimately determine what power sources are added to the grid and at what rate.<sup>5</sup> Where development of a backbone transmission system encounters financing impediments, BOEM could provide for flexible terms, based on examples in oil and gas leasing terms ("so long as producing in \_\_ quantities") to support financing, particularly transmission financing for High Voltage Direct Current lines that have planning/environmental benefits that project-specific transmission financing cannot capture. BOEM should also eliminate the distinction in its regulations between rights of way for generation transmission and rights of use and easement for other transmission lines, as they are environmentally indistinguishable, and both provide for construction of transmission lines.

As BOEM further advances transmission planning and offshore wind, it should consider lease stipulations and other financial incentives to drive the shared use of cable corridors or other shared transmission solutions, such as regional transmission systems, meshed systems, and the development of an offshore grid. These more technical and innovative approaches likely have less environmental and ocean user impacts leading to better outcomes for the marine environment. BOEM should use its regulations to advance solutions that address environmental, cultural, and ocean use impacts where at all possible.

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<sup>5</sup> One of the initiatives identified in DOE's January 2022 Offshore Wind Strategies Report is to comprehensively plan staged development of integrated transmission infrastructure and reduce transmission congestion. To implement that initiative, DOE recommends "conven[ing] collaboration among FERC, DOE, RTOs/ISOs, utilities, BOEM, states, industry, and other participants to plan long-term grid upgrades inclusive of prospective future offshore wind projects, and to refine cost allocation to incentivize long-term coordinated transmission planning across multiple projects." *Offshore Wind Strategies Report, Dept. of Energy* (Jan. 12, 2022).

### *Definition of Reasonable Uses of the EEZ*

We encourage BOEM to use the final rule to resolve competing interpretations of OCSLA section 8(p) by defining the agency's approach to determining reasonable uses of the U.S. Exclusive Economic Zone and the resolution of competing uses.

An update could resolve conflicting interpretations of subsection 8(p)(4)(I) of OCSLA, which requires "prevention of interference with reasonable uses (as determined by the Secretary of the DOI) of the exclusive economic zone, the high seas, and the territorial seas" to codify the current opinion of the Solicitor's Office (M-37067)<sup>18</sup> regarding the Secretary of the DOI's broad discretion in implementing this authority.

In this respect, the BOEM regulations could support environmental collaboration and conflict resolution. Such an approach would not only respond to public comment on draft decision documents but also proactively manage known conflicts. Where warranted, the regulations should support the use of mediation/conflict resolution including the use of third-party neutrals to balance competing ocean uses and promote the conservation of ecosystems and biodiversity. Environmental Collaboration and Conflict Resolution has been demonstrated to reduce the time and expense of decision-making processes, the likelihood of litigation, and the issues in litigation.

We thank BOEM for the opportunity to provide comments on the Draft Renewable Energy Modernization Rule in order to facilitate the rapid, responsible and just development of offshore wind. Ocean Conservancy encourages BOEM to issue the final rule before 2023 ends in order to provide certainty for all stakeholders and communities interested in offshore wind development. We look forward to continuing to work with BOEM, and to hearing any updates offered to the public as well as any additional engagement opportunities.

Sincerely,

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October 6, 2022

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Submitted via Federal eRulemaking Portal at <https://www.regulations.gov>.

Re: Docket No. BOEM–2022–0031, 2023–2028 National Outer Continental Shelf Oil and Gas Leasing Proposed Program and Draft Programmatic Environmental Impact Statement

Ms. Hammerle:

Ocean Conservancy<sup>1</sup> submits the following comments in response to the Bureau of Ocean Energy Management’s (BOEM) notice of availability of the 2023–2028 National Outer Continental Shelf (OCS) Oil and Gas Leasing Proposed Program and Draft Programmatic Environmental Impact Statement (DPEIS) for the 2023–2028 Program.<sup>2</sup>

Oil and gas exploration, development and production on the OCS contribute to the global climate crisis that threatens people, public health, the environment and the economy.<sup>3</sup> OCS oil and gas operations create the risk of catastrophic oil spills that jeopardize marine and coastal ecosystems and the communities and people who rely on them. Everyday operation of fossil fuel facilities—including production platforms, transportation networks, refineries and coastal petrochemical plants—pollutes the air and water, threatening human health and impacting communities. There is no place for additional offshore drilling in a clean energy future. BOEM should select the No Action Alternative and propose no new OCS oil and gas leases in the 2023–2028 National Program.

If BOEM opts to include any oil and gas lease sales in 2023–2028 National Leasing Program, those lease sales should be the minimum required to sustain build-out of responsibly sited offshore wind facilities

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<sup>1</sup> Ocean Conservancy is a nonprofit marine conservation organization based in Washington, D.C. with regional offices across the United States. Ocean Conservancy envisions a healthier ocean, protected by a more just world and works to protect the ocean from today’s greatest global challenges. We create knowledge-based solutions for a healthy ocean and the wildlife and communities that depend on it.

<sup>2</sup> Bureau of Ocean Energy Management, Docket No. BOEM–2022–0031, National Outer Continental Shelf Oil and Gas Leasing Proposed Program and Draft Programmatic Environmental Impact Statement, 87 Fed. Reg. 40,859, 40,859-63 (July 8, 2022).

<sup>3</sup> President Biden, Executive Order 14008: Tackling the Climate Crisis at Home and Abroad, Jan. 27, 2021.



pursuant to section 50265 of the Inflation Reduction Act of 2022.<sup>4</sup> Any new oil and gas lease(s) should be subject to the highest possible environmental protection standards, address long-standing environmental justice concerns in the Gulf of Mexico and ensure that lessees are fully accountable for all impacts, including impacts to climate, public health, ecosystem health, cultural heritage and economic well-being. Under no circumstances should the 2023–2028 Leasing Program include proposed Lease Sale 267 in Alaska’s Cook Inlet.

### **I. The 2023–2028 National Program Should Include No New Oil and Gas Lease Sales**

Emissions from producing and burning oil and gas are driving the climate crisis and ocean acidification. The continued viability of our ocean and our planet depends on reducing greenhouse gas emissions. Scheduling additional OCS oil and gas leases contradicts President Biden’s climate commitments and would prolong the adverse climate and environmental impacts of offshore drilling for decades.<sup>5</sup> BOEM should adopt Alternative A, the No Action Alternative, and the 2023–2028 National OCS Leasing Program should include no new oil and gas lease sales.

According to the Intergovernmental Panel on Climate Change, “human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years.”<sup>6</sup> Sea levels are rising, Arctic ice extent is diminishing, marine heat-waves are increasing and major cyclones are becoming more frequent.<sup>7</sup> Climate-related changes are having profound impacts on coastal communities and marine wildlife, including species that support commercial fisheries.<sup>8</sup> Warming will continue until at least mid-century, and without rapid and “deep reductions in CO<sub>2</sub> and other greenhouse gas emissions” it will exceed 2°C by the end of the century.<sup>9</sup>

President Biden called this situation a “profound climate crisis”<sup>10</sup> and called on federal agencies to take rapid and sweeping action and to do their utmost “to avoid the most catastrophic impacts” of climate change.<sup>11</sup> President Biden’s Executive Order 13990 declares that it is the policy of the United States to reduce greenhouse gas emissions and bolster resilience to the impacts of climate change.<sup>12</sup> Executive Order 14008 instructs federal agencies to use their “full capacity . . . to combat the climate crisis” and to take an approach to governance “that reduces climate pollution” and “increases resilience to the

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<sup>4</sup> Inflation Reduction Act of 2022, Pub. L. No. 117-169, § 50265. Section 50265 prohibits BOEM from issuing leases for offshore wind development unless the agency has offered at least 60 million acres of the OCS for oil and gas leasing in the previous year.

<sup>5</sup> See, e.g., BOEM, Draft Programmatic Environmental Impact Statement for 2023–2028 National OCS Oil and Gas Leasing Program at 13 (hereinafter DPEIS) (noting that lease sales proposed for the Central and Western Gulf of Mexico “would prolong the significant impacts that already exist” in the region. *Id.* at 19 (noting the OCS leasing program would have a 40–70 year time horizon).

<sup>6</sup> IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, p. 7. Available at [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf).

<sup>7</sup> *Id.* at 9-11.

<sup>8</sup> See, e.g., Megan Williams *et al.*, The heat is on: Gulf of Alaska Pacific cod and climate-ready fisheries, ICES J. of Marine Science (March 2021) (describing how a marine heatwave led to a decline in Pacific cod and subsequent closure of a federal fishery in the Gulf of Alaska).

<sup>9</sup> IPCC, 2021, *supra* note 6, at 17.

<sup>10</sup> President Biden, Executive Order 14008: Tackling the Climate Crisis at Home and Abroad, Jan. 27, 2021.

<sup>11</sup> *Id.*

<sup>12</sup> Executive Order 13990 of January 20, 2021, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, 86 Fed. Reg. 7037, 7037 (Jan. 25, 2021).

impacts of climate change.”<sup>13</sup> It further notes that “bold, progressive action” is needed to combat the climate crisis.<sup>14</sup> Given the climate crisis and President Biden’s executive orders directing federal agencies to combat the climate crisis, BOEM is obligated to adopt a 2023–2028 National Program that includes no new oil and gas lease sales.

## **II. If the 2023–2028 National Program Includes New OCS Lease Sales, They Should Be the Minimum Necessary to Support Issuance of New Offshore Wind Leases.**

The Inflation Reduction Act of 2022 recently became law.<sup>15</sup> This legislation represents the biggest investment in climate solutions in U.S. history, and includes provisions intended to incentivize and accelerate the transition away from fossil fuels toward renewable forms of energy.

However, the Inflation Reduction Act also includes provisions that prop up the fossil fuel industry and sustain unjust conditions in which communities along the Gulf of Mexico continue to be sacrifice zones where human and environmental health are deemed less valuable than energy production and profits for fossil fuel companies. One problematic section of the Inflation Reduction Act makes new offshore renewable energy development contingent upon continued offshore oil and gas leasing. Specifically, section 50265 prohibits BOEM from issuing leases for offshore wind development unless the agency has offered at least 60 million acres of the OCS for oil and gas leasing in the previous year.<sup>16</sup>

Congress should reconsider and repeal section 50265. In the meantime, if BOEM opts to include offshore oil and gas lease sales in the 2023–2028 National Leasing Program, those lease sales should be the minimum required to sustain build-out of responsibly sited offshore wind facilities under section 50265.<sup>17</sup> For instance, in the year before the issuance of offshore wind leases, the total of acreage of new oil and gas lease sale(s) should be no larger than 60 million acres in size—the minimum threshold necessary to enable new offshore wind leases. If BOEM includes one or more lease sales in the 2023–2028 National Program, those sales should be necessary to support continued build-out of offshore wind development. Under no circumstances should BOEM schedule a new offshore oil and gas lease sale if that sale is not required to enable the issuance of additional offshore wind leases.<sup>18</sup>

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<sup>13</sup> Executive Order 14008 of January 27, 2021, Tackling the Climate Crisis at Home and Abroad, 86 Fed. Reg. 7619, 7622 (Feb. 1, 2021).

<sup>14</sup> *Id.*

<sup>15</sup> Inflation Reduction Act of 2022, Pub. L. No. 117-169.

<sup>16</sup> *Id.* § 50265.

<sup>17</sup> *Id.* Section 50265 prohibits BOEM from issuing leases for offshore wind development unless the agency has offered at least 60 million acres of the OCS for oil and gas leasing in the previous year.

<sup>18</sup> The Inflation Reduction Act requires BOEM to hold oil and gas lease sale 261 in the Gulf of Mexico no later than September 30, 2023. Inflation Reduction Act of 2022, Pub. L. 117-169 § 50264(e). Assuming BOEM holds an oil and gas lease sale that offers at least 60 million acres on September 30, 2023, the agency would be able to issue new offshore wind leases through September 30, 2024. *Id.* § 50265 (providing BOEM may offer new offshore wind leases so long as it has offered at least 60 million acres of OCS lands for oil and gas within the previous year). Because new offshore wind leases would be authorized until September 30, 2024, there is no reason for the 2023–2028 National Program to schedule any new OCS oil and gas lease sale before September 30, 2024.

If Congress repeals or modifies section 50265 of the Inflation Reduction Act such that issuance of offshore wind leases is no longer contingent upon new OCS oil and gas lease sales, the Secretary of the Interior should exercise her discretion not to go forward with any new OCS oil and gas lease sales that might be included in the final version of the 2023–2028 National Program. Moreover, if the 2023–2028 National Program includes one or more OCS oil and gas lease sales, and if section 50265 is repealed or modified such that issuance of offshore wind leases is no longer contingent upon offshore oil and gas lease sales, BOEM should develop and publish a new National Program that includes no new oil and gas lease sales.

### **III. If the 2023–2028 National Program Includes New Lease Sales, Lessees Should be Held to the Highest Standards.**

If the 2023–2028 National Program includes one or more oil and gas lease sales, BOEM should do everything in its power to enact and enforce the highest possible standards on potential lessees, including addressing long-standing environmental justice concerns in the Gulf of Mexico and ensuring lessees are fully accountable for impacts related to their operations on the OCS, including impacts to climate, ocean acidification, coastal and marine environments, and human and community health.

The Inflation Reduction Act contains some provisions that impose higher fees on OCS operators. These provisions make modest shifts toward providing a better rate of return for taxpayers and imposing additional costs on operators for climate-related impacts. For instance, the Act raises the minimum oil and gas royalty rate for certain offshore leases from 12.5% to 16.67%.<sup>19</sup> It also expands the existing gas production royalties to include gas used or “lost by venting, flaring, or negligent releases through any equipment during upstream operations.”<sup>20</sup> While these legislative changes are welcome improvements, BOEM can and should use its discretion under the OCS Lands Act<sup>21</sup> to enact more sweeping regulatory and policy changes that ensure OCS oil and gas lessees and operators pay their fair share and are held accountable for their impacts to the environment and communities.

Environmental justice should be at the forefront of BOEM’s considerations. BOEM’s DPEIS notes that “people living adjacent to Western and Central GOM Planning Areas have experienced OCS oil and gas activity for nearly three-quarters of a century.”<sup>22</sup> BOEM should change regulations, policies and practices to acknowledge and remedy longstanding environmental justice concerns—especially in the Gulf of Mexico. For too long, low-income and communities of color in the Gulf have borne the brunt of impacts from oil and gas development, refineries and petrochemical processing plants. BOEM should clarify and improve its implementation of the National Environmental Policy Act (NEPA)<sup>23</sup> and related mandates to better consider and address environmental justice concerns. BOEM should also finalize its methodologies and best practices related to environmental justice so it that it can better assess impacts to historically marginalized communities.<sup>24</sup>

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<sup>19</sup> Inflation Reduction Act of 2022, Pub. L. 117-169, § 50261.

<sup>20</sup> *Id.* § 50263.

<sup>21</sup> OCS Lands Act, 43 U.S.C. §§ 1331 *et seq.*

<sup>22</sup> DPEIS at 13.

<sup>23</sup> 42 U.S.C. § 4321 *et seq.*

<sup>24</sup> See DPEIS at 63 (noting “BOEM is currently developing methodologies and best practices to improve upon current methods used to assess impacts to vulnerable communities.”).

Overall, BOEM should revise its regulations and policies to prioritize healthy, productive ocean ecosystems. The OCS Lands Act requires environmental safeguards.<sup>25</sup> BOEM regulations should underscore the primacy of ocean health and ensure that any extraction of mineral resources does not create significant risks to marine and coastal environments.

Following the lead of the Inflation Reduction Act, BOEM should undertake regulatory processes to update its rent and royalty provisions to better account for externalities, including climate change, ocean acidification and other pollution impacts. Similarly, the agency should modernize regulations governing five-year planning so they more effectively describe factors to be considered under OCS Lands Act section 18(a)(2) and provide direction for the “balancing” under section 18(a)(3).<sup>26</sup> Updated regulations should also require BOEM to account for option value in the planning process, ensure it has access to adequate baseline ecosystem information before including areas in a five-year program, identify important marine areas, and recognize explicitly that exploration and development carries different risks in different regions (e.g., oil spills behave differently and may present more risks in cold waters). BOEM should also impose regulations or lease stipulations that require operators to demonstrate their ability to effectively remove oil from marine and coastal environments in the event of a worst-case discharge.

Updated regulations can also clarify NEPA requirements for each stage of the OCS Lands Act process and identify appropriate uses of tiering and categorical exclusions. Regulatory changes can also better define cumulative impacts analyses, require analysis of low-probability/high-risk events and ensure environmental assessments are subject to meaningful public review and comment. Regulatory changes can also promote transparency by requiring Interior Department agencies to post—on a public website and in a timely manner—non-privileged information on exploration, permitting, inspections, monitoring and enforcement. Regulations can also ensure information on OCS incidents and near-misses is available to the public. BOEM can also use lease stipulations to advance information- and data-sharing. For instance, the agency should develop a stipulation that requires lessees to share publicly non-proprietary biological and oceanographic data.

If BOEM offers one or more OCS oil and gas leases in the 2023–2028 National Program, the agency should make full use of its discretion to change regulations, policies and practices to ensure that lessees pay for the significant health, social, climate and environmental costs they impose on coastal communities and society.

#### **IV. Under No Circumstances Should the 2023–2028 Program Include a New Lease Sale in Alaska’s Cook Inlet.**

If BOEM opts to include one or more oil and gas lease sales in the 2023–2028 National Program, proposed Lease Sale 267 in Cook Inlet should not be among them. Federal waters of Cook Inlet are relatively small in geographic extent, and a Cook Inlet oil and gas lease sale would not contribute significantly to the 60-million-acre threshold—established under section 50265 of the Inflation Reduction Act—that is required for BOEM to issue offshore wind leases. An oil and gas lease sale in Cook Inlet would, however, have significant impacts. BOEM’s DPEIS concludes that oil and gas activities

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<sup>25</sup> OCS Lands Act, 43 U.S.C. § 1332 (noting development of the OCS is “subject to environmental safeguards”).

<sup>26</sup> *Id.* § 1344(a)(2) and (a)(3).

resulting from a Cook Inlet Lease Sale “would introduce new significant impacts.”<sup>27</sup> These impacts could adversely affect wildlife—including birds, marine mammals and fish—as well as subsistence, commercial and recreational fisheries. BOEM should abandon proposed Lease Sale 267.

#### **V. BOEM’s Five-Year Program and Other Work Should Support and Accelerate a Rapid, Just and Equitable Transition Away from Fossil Fuels and Toward Renewable Sources of Energy.**

This administration has recognized the “urgent need to tackle the climate crisis.”<sup>28</sup> Doing so will require a rapid, just, and equitable transition away from fossil fuels and toward renewable energy sources. This transition is needed to prevent catastrophic impacts from climate change and ocean acidification and to ensure the continued vitality of coastal communities, Tribes and cultures.

Although such a transition cannot happen overnight, it must begin now. As steward of public lands and waters, BOEM has a critical role in advancing a just transition. BOEM should start by adopting the No Action Alternative for the 2023–2028 National Program. If BOEM proceeds with a Proposed Final Program that includes one or more leases, it should take aggressive action to ensure that its regulations, policies, and guidance require lessees to address environmental justice impacts, adhere to strict environmental standards and pay their fair share for the costs OCS oil and gas activities impose on coastal communities, society and our environment.

In transitioning away from fossil fuels, BOEM must ensure agency decision-making processes properly account for all climate, ocean acidification, ecosystem, community and other impacts from oil and gas activities. The agency must consider impacts from extraction and combustion of fossil fuels, as well as the production and use of petrochemicals, which are derived from oil and gas. The production and consumption of plastic, in particular, has substantial climate change impacts and results in pollution causing other air, water, and health effects.

As noted above, BOEM must also account for the oil and gas industry’s disproportionate impacts to disadvantaged communities and communities of color. As part of this process, it must provide support, including funding and training, to enable a sustainable economic transition for individuals and communities. In addition, BOEM must explicitly recognize Tribal sovereignty and find ways to work collaboratively with Indigenous people, coastal communities, and others. Inclusion and meaningful partnership, including recognizing Indigenous Knowledge as equal to western science, are vital to a fair and just transition.

With its recent work on offshore wind, BOEM has started on a path toward a clean energy future. The agency should continue to advance the Biden administration’s ambitious goal of achieving 30 gigawatts of offshore wind by 2030—more than 700 times the amount of energy currently produced by offshore wind in the United States. Responsible build-out of offshore wind is a critical part of our transition from harmful fossil fuels toward a clean energy economy.

In addition to playing a key role in our response to climate change and ocean acidification, development of offshore wind energy can reduce air and water pollution and support thousands of well-paying jobs.

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<sup>27</sup> DPEIS at 13.

<sup>28</sup> See, e.g., U.S. Department of the Interior Press Release, “Secretary Haaland Delivers Remarks at Interior’s Public Forum on the Federal Oil and Gas Program,” March 25, 2021 (noting Secretary of the Interior Haaland’s remarks emphasized the “urgent need to tackle the climate crisis”).

For these and other reasons, the administration should continue to advance its broad goal of accelerating offshore wind energy. To foster long-term success, BOEM must ensure all U.S. offshore wind projects are responsibly sited, developed, operated and decommissioned.

As part of the transition to a clean energy future, BOEM's offshore wind leases should include stipulations and other innovative approaches that will direct benefits to underserved communities. Without proactive efforts to ensure the benefits of clean energy infrastructure development accrue to the most vulnerable communities, BOEM's offshore wind leasing efforts risk reinforcing pre-existing social inequities and perpetuating inequitable outcomes for the same communities that have been most heavily burdened by the costs of climate change and dirty energy.

## **Conclusion**

To comply with the policies and priorities issued by President Biden and his administration to address the climate crisis, BOEM should select the No Action Alternative and proposed no OCS oil and gas leases in the 2023-2028 National Program. If BOEM opts to include any oil and gas lease sales in 2023–2028 National Leasing Program, those lease sales should be kept to the minimum required to sustain build-out of responsibly sited offshore wind facilities pursuant to section 50265 of the Inflation Reduction Act of 2022.<sup>29</sup> Any new oil and gas lease(s) should be subject to the highest possible environmental protection standards, address long-standing environmental justice concerns in the Gulf of Mexico and ensure that lessees are fully accountable for all impacts. Under no circumstances should the 2023–2028 Leasing Program include proposed Lease Sale 267 in Alaska's Cook Inlet.

Respectfully,



Andrew Hartsig  
Senior Director, Arctic Program  
Ocean Conservancy

---

<sup>29</sup> Inflation Reduction Act of 2022, Pub. L . No. 117-169, § 50265.

**From:** "Eng, Lissa M" <Lissa.Eng@boem.gov>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Moriarty, Tracey B" <Tracey.Moriarty@boem.gov>, "Gillette, Connie S" <Connie.Gillette@boem.gov>

**Subject:** Re: [EXTERNAL] Fwd: LCV Statement on New Offshore Wind Call Areas Announcement

**Date:** Wed, 27 Apr 2022 16:57:05 +0000

---

Thanks Marissa!

---

**From:** Lefton, Amanda B <Amanda.Lefton@boem.gov>

**Sent:** Wednesday, April 27, 2022 12:45:10 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Moriarty, Tracey B <Tracey.Moriarty@boem.gov>; Gillette, Connie S <Connie.Gillette@boem.gov>; Eng, Lissa M <Lissa.Eng@boem.gov>

**Subject:** Re: [EXTERNAL] Fwd: LCV Statement on New Offshore Wind Call Areas Announcement

Nice work

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---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Wednesday, April 27, 2022 12:44:09 PM

**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Moriarty, Tracey B <Tracey.Moriarty@boem.gov>; Gillette, Connie S <Connie.Gillette@boem.gov>; Eng, Lissa M <Lissa.Eng@boem.gov>

**Subject:** Fw: [EXTERNAL] Fwd: LCV Statement on New Offshore Wind Call Areas Announcement

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** David Shadburn <dshadburn@lcv.org>

**Sent:** Wednesday, April 27, 2022 12:15 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Fwd: LCV Statement on New Offshore Wind Call Areas Announcement

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Making sure this gets to you! Big thanks to you, Director Lefton, and Secretary Haaland!

-David

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---

**From:** Courtney Connon <cconnon@lcv.org>  
**Sent:** Wednesday, April 27, 2022 12:11:42 PM  
**To:** Courtney Connon <cconnon@lcv.org>  
**Subject:** LCV Statement on New Offshore Wind Call Areas Announcement

<https://www.lcv.org/article/lcv-statement-on-new-offshore-wind-call-areas-announcement/>

**For Immediate Release**

April 27, 2022

**Contact:** Courtney Connon, [courtnee\\_connon@lcv.org](mailto:courtnee_connon@lcv.org), 727-744-4163

**LCV Statement on New Offshore Wind Call Areas Announcement**

**Washington, D.C.** – The League of Conservation Voters (LCV) issued the following statement from **Government Affairs Advocate David Shadburn** on today’s offshore wind announcements from Bureau of Ocean Energy Management (BOEM) director Amanda Lefton:

“We are thrilled to see the Biden-Harris Administration continue to make aggressive moves toward achieving its goal of deploying 30 gigawatts of offshore wind by 2030. These initial steps to leasing more than 5 million new acres of offshore wind areas off the Central Atlantic and Oregon coasts will create good paying jobs up and down the U.S. clean energy supply chain all while tackling the climate crisis. Thank you to BOEM Director Amanda Lefton for prioritizing these deployment goals; we look forward to working with the administration to accelerate the transition to clean energy independence.”

###



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Cc:** Michelle Myers <MMyers@biologicaldiversity.org>  
**Subject:** Re: [EXTERNAL] RE: Gratitude  
**Date:** Wed, 21 Apr 2021 17:01:47 +0000

---

Thanks, Dustin. I will absolutely convey that gratitude to Director Lefton. She told me she was truly honored to join.

I know the process of building working relationships, if not trust, with the federal government will take time and healing. That said, I share the hope and conviction that yesterday was just the first of many conversations that will involve not just listening but actions that make a positive difference for Gulf communities.

Peace and SOLIDARITY,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Dustin Renaud <dustin@healthygulf.org>  
**Sent:** Wednesday, April 21, 2021 12:39 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Michelle Myers <MMyers@biologicaldiversity.org>  
**Subject:** Re: [EXTERNAL] RE: Gratitude

Marissa,  
Thank you from the bottom of my heart for showing up when Gulf communities called on you. Send my utmost respect and thanks to Director Lefton as well.

I hope we were able to provide you with a panel of folks with a wide range of backgrounds who adequately represent Gulf communities. It feels like we have been beholden to oil for so long in the Gulf that it is sometimes difficult to feel like we're being heard, and more importantly, listened to by the folks who are making decisions that affect us. I've heard from several panelists that they were really impressed that BOEM would even show up, much less speak and take questions. We know you can't do everything, but we do expect you to do something.

Let's continue this conversation...

In solidarity,

Dustin

On Wed, Apr 21, 2021 at 10:44 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Thanks, Michelle. A compilation of the panelist contacts would be very helpful.

I believe I addressed all the questions directed towards BOEM in the Q&A box. There were several specific for BSEE that I wrote down, but am not sure how to follow up with those specific individuals (they weren't panelists)

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Wednesday, April 21, 2021 11:40 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; [dustin@healthygulf.org](mailto:dustin@healthygulf.org) <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** [EXTERNAL] RE: Gratitude

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Also, because of time constraints we only got to a fraction of the questions from the Q & A. It looked like you were answering some in real time. Did you all see them, or should I compile those as well?

---

**From:** Michelle Myers  
**Sent:** Wednesday, April 21, 2021 11:39 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; [dustin@healthygulf.org](mailto:dustin@healthygulf.org)  
**Subject:** RE: Gratitude

Hi Marissa,

Thank you for attending and coordinating other agency staff to attend. Please send our appreciation to Ms. Lefton as well, and apologize for the slight tech problem that occurred when she arrived at the forum.

I think it meant a lot for the Gulf residents that you all were there to witness yesterday. While showing up is a great first step, ongoing engagement, as well as consideration of the health, ecologic and climate concerns is really where the community needs to see the outcomes of this report. The cumulative impacts from the fossil fuel industry in the region, while may not all fall directly in the purview of the federal leasing program, must be considered as the program is in review.

Would it be helpful if I created a contact sheet of the panelists yesterday so that you have them for any follow up you'd like to do?

I will also be sending along a video of the forum from last night once it is formatted.

Best Regards,  
Michelle

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, April 20, 2021 6:13 PM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>; [dustin@healthygulf.org](mailto:dustin@healthygulf.org)  
**Subject:** Gratitude

Hey Michelle and Dustin,

Thank you for organizing such a powerful forum. Both the Director and I were honored to be part of it, and hope it's just the first of many engagements with the Gulf community.

Feel free to share my e-mail with panelists or others if additional questions come up and I'll be happy to respond.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

--

 [Healthy Gulf](#)

 [Healthy Gulf on Facebook](#)  
 

## **Dustin Renaud**

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176

**Protect What You Love**

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Hands Across the Sand - website & Oceana events Saturday

**Date:** Thu, 19 May 2022 14:18:25 +0000

**Attachments:** Hands\_Across\_The\_Sand\_Advisory\_2022.pdf

**Inline-Images:** image001.png

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Hi Amanda and Marissa,

Writing to share the website for events happening all over the coasts this weekend. The media advisory is attached and includes the list of key events. The national website is: <https://handsacrossthesand.org/>

Below you will find a list of Oceana's primary events.

Thank you, Diane

## **FLORIDA**

### **Event 1 – South Florida**

- **Location:**  
[5th Street & Oceanfront, Miami Beach, FL 33139](#)
  
- **Time:** 11 a.m.
  
- **Sponsoring organizations:** Oceana, Surfrider, Urban Paradise Guild
  
- **VIPs invited, including members of Congress:** Congresswoman Wasserman Schultz, Congresswoman Salazar, State Rep. Michael Grieco, State Senator Jason Pizzo, Miami Dade County Commissioner Eileen Higgins, Miami Beach Commissioner David Richardson, Miami Dade County Chief Bay Officer Irela Bague, Mayor of Miami Dade County Daniela Levine Cava, Miami Beach Mayor Dan Gelber, Jerry Libbin Miami Beach Chamber of Commerce

### **Event 2 - FL Gulf Coast**

- **Location:** [1700 Gulf Blvd, Indian Rocks Beach, FL 33785](#)
- **Time:** 11 a.m.
- **Sponsoring organizations:** Oceana, Southern Alliance for Clean Energy, Sierra Club Florida, Friends of the Earth, Suncoast Surfrider, Florida Conservation Voters
- **VIPs invited, including members of Congress:** Congressman Crist, Congresswoman Castor, Congresswoman Demings (invited), Indian Rocks Beach Mayor Cookie Kennedy (confirmed)

### Event 3 - NE Florida

- **Location:** [Jacksonville Beach](#)
- **Time:** 11:00
- **Sponsoring organizations:** Oceana, Surfrider Foundation

### CALIFORNIA:

#### SoCal Event 1

- **Location:** [Moonlight beach, Encinitas](#)
- **Time** 9 00am 10 00am
- **Sponsoring organizations:** Oceana, Surfrider Foundation
- **Confirmed speakers** Congressman Mike Levin, Melissa Morris (Oceana), Alessandro Frascchetti and Mark O'Connor (Surfrider)
- **VIPs invited, including members of Congress:** Mayor Blakespear (Encinitas), Assemblymember Maienschein, Rob Machado (Pro Surfer), E2, BAPPC

#### SoCal Event 2

- **Location:** [Huntington Beach State Beach](#)
- **Time:** 10:00am
- **Sponsoring organizations:** Surfrider Foundation, Oceana, Business Alliance for Protecting the Pacific Coast
- **Confirmed speakers:** Congresswoman Porter, Grant Bixby (biz leader), Lexi Hernandez (OC Climate Equity Organizer and Advocate)
- **VIPs invited, including members of Congress:** Sen. David Min, ASM Petrie-Norris and a Huntington Beach city council member

**SoCal Event 3 (Melissa Morris helped organize/promoting)**

- **Location:** [Imperial Beach](#)
- **Time** 9AM
- **Sponsoring organizations:** Oceana, Surfrider Foundation

**GEORGIA:**

**Event**

- **Location:** [Tybee Beach Pier](#)
- **Time** 11 00am
- **Sponsoring organizations:** Oceana, Surfrider Foundation, Keep Golden Isles Beautiful, Fight Dirty Tybee, and Riverrat Productions
- **Confirmed speakers:** Tybee Mayor Shirley Session, Hermina Glass-Hill (Oceana), Kathryn Williams of North Beach Bar & Grill (Business Owner)
- **VIPs invited, including members of Congress:** Sen. Jon Ossoff, Sen. Raphael Warnock, Congressman

Buddy Carter, State Sen. Ben Watson, State Rep. Al Williams, State Rep. Ron Stephens, State Rep. Carl Gilliard, GA State Rep Derek Mallow

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

## FOR PLANNING PURPOSES ONLY

May 20th, 2022

**Press Contact:** Abby Grehlinger, [abby@team-arc.com](mailto:abby@team-arc.com), (856) 340-6656

\*\*\*\*\***MEDIA ADVISORY**\*\*\*\*\*

## **Event: 2022 Hands Across the Sand Day of Action**

*Activists Across the Globe Gather to Stand Against Offshore Drilling*

Tomorrow, May 21st, [Hands Across the Sand](#) will hold its 12th annual event in which participants will urge local, state and federal elected officials to permanently protect our coasts from offshore drilling and adopt policies that encourage the growth of clean and renewable energy that promotes new, well-paying jobs. Hands Across the Sand is an international day of action on which activists and beachgoers alike draw a metaphorical line in the sand and create a powerful visual statement against Big Oil.

**WHAT:** Local, national and international conservation groups and community activists are organizing live events for the first time in two years, where they will stand together in silent solidarity drawing lines in the sand against offshore drilling to raise awareness about the dangers of dirty fuels and the need to accelerate the transition to clean energy solutions. Local events will take place on May 21st.

**WHO:** Participants include: Oceana, Surfrider Foundation, Southern Alliance for Clean Energy, Healthy Gulf, Bud and Alley's, SoWal, Urban Paradise Guild, Save Greek Seas, Future Frogmen, Natural Resources Defense Council, Earthjustice, Sierra Club and League of Conservation Voters.

**WHEN: Saturday, May 21st**

### **WHERE:**

- [Wrightsville Beach, North Carolina](#)
- [Emerald Isle, North Carolina](#)
- Oak Island, North Carolina
- [Ocean View Avenue Norfolk Virginia](#)
- [Strand Avenue, Tybee Island Georgia](#)
- 1000 Bay Avenue, Columbus, Georgia
- [Stairwell 17 Ocean Beach, San Francisco, California](#)
- [Newland Street, Huntington Beach, California](#)
- [4th and 8th street Encinitas, California](#)
- [Poplar Street Half Moon Bay, California](#)
- 1228 Agate Street Pacific Beach San Diego, California
- [698 Ocean Lane Imperial Beach, California](#)
- [Los Angeles, California](#)
- [Waimanalo Beach Park Waimanalo Oahu, Hawaii](#)
- [Kihei, Hawaii](#)
- Surf City, New Jersey



- 567th Street Shore Front Queens, New York
- Southwick Beach Park Watertown, New York
- [5th Street and Ocean Miami, Florida](#)
- [Satellite Beach, Florida](#)
- [Indian Rocks Beach Tampa, Florida](#)
- Fort Myers Beach Fort Myers, Florida
- 503 First Street Jacksonville, Florida
- [Casino Beach Boardwalk Pensacola, Florida](#)
- New Smyrna Beach, Florida
- [Stage Fort Park, Gloucester, Massachusetts](#)
- [Jeness Beach, New Hampshire](#)
- Baron Bliss Lighthouse Belize City, Belize
- Dangriga Town, Belize
- Hurghada, Egypt Red Sea
- Hamawein, Egypt Red Sea

#### **SPONSOR STATEMENTS:**

*“Coastal communities know that offshore drilling is dirty and dangerous. Toxic oil spills can shut down beaches, devastate local economies that depend on tourism and recreation, and poison our oceans. Ending new leasing for offshore drilling will protect the millions of jobs that rely on a healthy ocean, and it is a vital step in tackling the climate crisis. We need a rapid transition to clean, renewable energy, not more dirty and dangerous offshore drilling,”* **said Randy Sturgill, Oceana Senior Field Representative, North Carolina.**

*“Now, more than ever before, the public voice in support of protecting our oceans needs to be strong and clear. The combination of rapid climate change, industrial overfishing, accumulating plastic debris, and literally, our ability to survive on this planet, are all at stake right now. Joining together we can build the new world that we need to go forward,”* **said Richard Charter, Director of the Coastal Coordination Program, with The Ocean Foundation.**

*“For far too long, coastal communities have faced the dual threat of dangerous offshore drilling and worsening extreme weather caused by fossil fuel-driven climate change. We must prioritize environmental justice, a stable climate, and thriving coastal ecosystems and economies over the demands of the fossil fuel industry and the politicians they fund,”* **said John Dunmore, with the Sierra Club's Lands Protection Program.** *“The Sierra Club is proud to join Hands Across the Sand in urging the Biden administration to build on the progress they've already made by prioritizing no new offshore drilling and leases in an effort to conserve at least 30% of Lands and Waters by 2030.”*

*“Offshore oil drilling is a dirty and dangerous practice that threatens the health of our ocean, as well as our coastal recreation and tourism industries that contribute billions of dollars to our nation's economy. We call upon our federal leaders to permanently prohibit new offshore drilling and support a rapid transition to a clean energy economy,”* **said Pete Stauffer, Ocean Protection Manager, Surfrider Foundation.**

*"It really feels like this year's Pensacola Beach Hands event is the most important one ever. That's because the Congressional moratorium that has protected the eastern Gulf of Mexico from drilling for decades expires in less than two months. So we are calling on our elected officials to pass a permanent moratorium. We have an economy that depends on clean water and clean sand. We can't afford the many risks of drilling,"* **said Christian Wagley, Coastal Organizar for Healthy Gulf.**

*"It's clear that choosing clean energy and electric transportation over oil, gas, and coal can save families money, improve our health, create good jobs, and protect the environment. Yet the fossil fuel industry is using the pain families are currently feeling at the pump to push for even more offshore drilling--a great risk with little benefit. It's time to put fossil fuels in the rear view mirror. Policy makers must prioritize the transition to clean energy and pull all the levers available to them to work for clean energy prosperity over fossil-fueled climate disaster,"* **said Chris Carnevale, Coastal Climate and Energy Manager at Southern Alliance for Clean Energy.**

*"From her mangrove infringed paradise beaches to her crystal blue waters bursting with unparalleled ecosystems, there is not a single part of the Gulf of Mexico that doesn't breathe life into her surrounding communities. We have betrayed our Gulf waters with crude, makeshift, and rudimentary oil production and extraction. We cannot continue on this destructive path and permit new leases in the Gulf or any of our coastal waters; the time to transition to a clean energy future is now! Fort Myers Beach residents and visitors alike are ready to unite to commemorate our losses but also to stand strong for a brighter, more resilient, and just future for the waters we love,"* **said Sierra Greene, Sierra Club Calusa Group's Outings Chair.**

###

*Floridian Dave Rauschkolb founded Hands Across the Sand/Land in October 2009. Hands Across the Sand/Land is sponsored by national environmental organizations and others including; Bud and Alley, Oceana, Surfrider Foundation, Southern Alliance for Clean Energy, Sierra Club, Natural Resources Defense Council, League of Conservation Voters, Earthjustice, SoWal, Healthy Gulf, and Urban Paradise Guild.*

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** (b) (6)

onzalez-Rothi, Sara R. EOP/CEQ"

(b) (6)

"Ennis, Jessica A. EOP/CEQ"

(b) (6)

"Beaudreau, Tommy P" <tommy\_beaudreau@ios.doi.gov>, "Kelly, Katherine P" <kate\_kelly@ios.doi.gov>, "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "OS, OIEA" <oiea@ios.doi.gov>, "Klein, Elizabeth A" <elizabeth.klein@boem.gov>, "Cruickshank, Walter" <walter.cruickshank@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Heads up about offshore drilling ads

**Date:** Mon, 6 Feb 2023 20:00:46 +0000

**Attachments:** Bus\_Shelter\_Ad\_Final.jpg

**Inline-Images:** image001.png

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Hi all,

I am writing to give you a heads up regarding an upcoming advertisement that will be visible around The White House next week at various bus shelters. As you know, Oceana and our many partners are encouraging President Biden to finalize a five year plan with no new leases for offshore oil and gas

Beginning February 6<sup>th</sup> there will be a graphic, calling on President Biden to keep [his campaign promise](#), advertised in bus shelters around The White House. The advertisements will be present around The White House until April 2<sup>nd</sup>.

Attached images for awareness and we hope the heads up is helpful.

All the best,  
Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
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**Mr. President, Will You**  
**#ProtectOurCoast**  
**From Offshore Drilling?**



[Oceana.org/ClimateFuture](https://oceana.org/ClimateFuture)  
**PAID FOR BY OCEANA**

**From:** Alex Taurel <Alex\_Taurel@lcv.org>

**To:** Shantha Ready Alonso <shantha\_alonso@ios.doi.gov>, "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>, Marissa Knodel <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] ICYMI: NY, MA LCV affiliates weigh in on Biden offshore wind announcement

**Date:** Tue, 30 Mar 2021 11:59:51 +0000

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Hi-

I wanted to share the note we sent to press yesterday lifting up statements from some of our northeast state LCVs praising the great offshore wind announcement!

Thanks,  
Alex

<https://www.lcv.org/article/icymi-ny-ma-lcv-affiliates-weigh-in-on-biden-offshore-wind-announcement/>

Infrastructure week is finally here. Wanted to make sure you saw statements from our New York and Massachusetts state affiliates praising the [Biden administration's all-of-government commitment](#) to expanding offshore wind development and creating good-paying, union jobs:

**Statement from Julie Tighe, President of the New York League of Conservation Voters:**

"With the new goal of 30 gigawatts of offshore wind by 2030, creating 80,000 jobs, and a multi-agency program to support the timely, environmentally-sound development of this emerging industry, the Biden-Harris Administration is showing that combating climate change and creating jobs go hand-in-hand. Critical investments in port infrastructure and advancing new Wind Energy Areas in the NY Bight will help New York meet its goal of attaining 9 gigawatts of power from offshore wind, make more space available for offshore wind, and cultivate the supply chain in the U.S. Wind energy can power millions of homes, contribute to our economic recovery, create green jobs, support our communities and slash pollution. NYLCV applauds the Administration for making wind energy and green jobs a top priority and we will continue working with stakeholders as more projects come online. We look forward to seeing the Administration continue to prioritize a comprehensive climate agenda that incorporates renewable energy and invests in our communities."

**Statements from the Environmental League of MA:**

"The Environmental League of MA celebrates the Biden-Harris Administration's offshore wind announcements. It takes an integrated, long-term approach to responsibly develop offshore wind. This Administration has just pledged the talents and resources from across many Agencies to harness this

abundant, clean wind power,” said ELM President **Elizabeth Henry** “This is a great day for Massachusetts, New England, and the planet ”

“Last year, we launched the New England for Offshore Wind Coalition in a similar spirit,” added **Susannah Hatch**, ELM’s Clean Energy Coalition Director and New England for Offshore Wind Regional Lead “Deep collaboration and long range planning are the foundation for responsible development and for achieving our climate goals in ways that respect the ocean’s many uses. We are thrilled that the Biden Harris Administration understands the promise of offshore wind and is prepared to embrace it ”

Emily Samsel  
National Press Secretary  
League of Conservation Voters  
(o) 202 454 4573  
(m) 828-713-9647

This email was sent to [esamsel@lcv.org](mailto:esamsel@lcv.org)  
LCV, 740 15th St NW, #700, Washington, DC 20005, USA  
[Unsubscribe](#)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] Just tried returning Director Lefton's call  
**Date:** Thu, 26 May 2022 14:31:14 +0000

---

No worries, we are in meetings all morning, but may have a break before 11 to call back.

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---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Thursday, May 26, 2022 10:08:26 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Just tried returning Director Lefton's call

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I missed her call a little before 10 but am around most of the day if she wants to try me again! Will try her again soon too.

--  
David Shadburn (he/him)  
Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078

**From:** America Fitzpatrick <afitzpatrick@lcv.org>

**To:** "elizabeth.klein@boem.gov" <elizabeth.klein@boem.gov>

**Subject:** [EXTERNAL] Re: LCV and Chispa Texas Statement on Final 2024-2029 5-Year Offshore Drilling Program

**Date:** Fri, 29 Sep 2023 16:40:27 +0000

**Inline-Images:** image001.png; image002.png

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Hi Liz,

Making sure this gets to the right email address.

Appreciate all that you do.  
America

**AMERICA FITZPATRICK** [she/her]  
Conservation Program Director  
League of Conservation Voters  
Direct: 301-219-2323  
Email: [afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)



---

**From:** America Fitzpatrick <afitzpatrick@lcv.org>

**Date:** Friday, September 29, 2023 at 12:24 PM

**To:** laura\_daniel-davis@ios.doi.gov <laura\_daniel-davis@ios.doi.gov>, Shantha R Alonso <shantha\_alonso@ios.doi.gov>, Katherine P Kelly <kate\_kelly@ios.doi.gov>, Marissa.Knodel@boem.gov <Marissa.Knodel@boem.gov>, elizabeth\_klein@ios.doi.gov <elizabeth\_klein@ios.doi.gov>, Jessica A. Ennis

**(b) (6)**

**Cc:** Leah Donahey <ldonahey@lcv.org>, Tiernan Sittenfeld <tiernan\_sittenfeld@lcv.org>

**Subject:** LCV and Chispa Texas Statement on Final 2024-2029 5-Year Offshore Drilling Program

Hi all,

Sharing with you LCV and Chispa Texas statements on today's announcement on the 5-year plan.

With appreciation for all that you do.  
America

**AMERICA FITZPATRICK** [she/her]



Conservation Program Director  
League of Conservation Voters  
Direct: 301-219-2323  
Email: [afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)



<https://www.lcv.org/media-center/lcv-and-chispa-texas-statement-on-final-2024-2029-5-year-offshore-drilling-program/>

## For Immediate Release

September 29, 2023

**Contact:** Mika Hyer, [mhyer@lcv.org](mailto:mhyer@lcv.org), 940-783-2230

## LCV and Chispa Texas Statement on Final 2024-2029 5-Year Offshore Drilling Program

**Washington, D.C.** — In response to the Department of Interior’s announcement of the Program for the 2024-2029 National Outer Continental Shelf Oil and Gas Leasing Program, the League of Conservation Voters and Chispa Texas released the following statements:

“It’s disappointing that the Biden-Harris administration issued a final five-year plan that includes new leasing that could lead to decades more fossil fuel dependency and climate pollution,” said **America Fitzpatrick, LCV Conservation Program Director**. “While three lease sales is fewer than what was initially proposed and fewer than previous five-year plans, LCV remains firmly opposed to Congress tying the expansion of offshore wind development to more oil and gas leasing off our coasts. We stand with frontline and coastal communities in calling on the Biden-Harris administration to do everything they possibly can to protect our coasts, our health, and our climate”

\*\*\*

“Our country is feeling the impacts of increased costs as we continue the practice of exporting our natural resources, while placing our coastal communities in harm’s way through more offshore drilling,” said **Elida Castillo, Chispa Texas Program Director**. “We bear the brunt of the impacts to our health and environment. We need more protections that will mitigate the warming of our oceans, rising sea levels, stronger hurricanes, and the decimation of our aquatic ecosystems, which sustain our fishing and tourism economies. Public waters belong to the public, and we should do more to protect our oceans and communities and prioritize investments in proven renewable energies and conservation.”

###

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "isis.farmer@boem.gov" <isis.farmer@boem.gov>, "Bill Brown, Chief Environmental Officer:" <william.brown@boem.gov>, "Megan Carr, Chief, Office of BOEM Strategic Resources:" <megan.carr@boem.gov>, "Jill Lewandowski, Chief, Division of Environmental Assessment:" <jill.lewandowski@boem.gov>, "Marissa Knodel, Advisor:" <marissa.knodel@boem.gov>, "James Kendall, Regional Director, Alaska:" <james.kendall@boem.gov>, "Douglas Boren, Regional Director, Pacific:" <douglas.boren@boem.gov>, "Elizabeth.Klein@boem.gov" <elizabeth.klein@boem.gov>, "tracey.moriarty@boem.gov" <tracey.moriarty@boem.gov>

**Subject:** [EXTERNAL] Letter to the President from more than 100 elected officials re: Five-Year Plan

**Date:** Tue, 25 Jul 2023 18:28:13 +0000

**Attachments:** 07-25-2023\_LEO\_Letter\_to\_President\_Biden\_FINAL.pdf

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Hi Team BOEM,

Please find attached a letter from a bipartisan group of more than 100 state and local elected officials—transmitted to the White House today—urging President Biden to prevent new offshore drilling leases in his upcoming National Outer Continental Shelf Oil and Gas Leasing Program for 2023-2028. This group includes mayors, city council members, and state representatives. Twenty-eight mayors and 12 state legislators from 15 states signed the letter.

Thank you for your consideration. If you have any questions, please do not hesitate to let me know.

Sincerely,  
Mike Messmer

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200

Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

July 25, 2023

The President  
The White House  
1600 Pennsylvania Avenue, NW  
Washington, DC 20500

Dear President Biden:

Thank you for the key actions you've taken on climate to date. We are state and local elected officials who have come together to urge you to take the next step for our climate, oceans, and frontline communities by issuing a final 2023–2028 National Outer Continental Shelf Oil and Gas Leasing Program (“Five-Year Plan”) that prevents new lease sales. Dirty and dangerous offshore oil drilling threatens our communities and our environment while exacerbating the climate crisis.

Climate change is threatening our oceans, our coasts, and our planet, and new leasing for offshore drilling would [lock in](#) decades of climate-harming carbon emissions. An [analysis by Oceana](#) found that protecting all unleased federal waters from offshore drilling in the United States could prevent over 19 billion tons of greenhouse gas emissions. That is the equivalent of taking every car in the nation off the road for 15 years and ending new leasing could prevent more than \$720 billion in damages to people, property, and the environment.

As you know, the devastating negative effects of oil and gas development on frontline communities are well documented. Drilling pollutes our air with [toxic emissions](#), causing asthma, lung cancer, and other diseases. For too long, the Gulf Coast has been the nation's sacrifice zone and Gulf communities have borne the brunt of the fallout from U.S. oil and gas drilling. Worse, oil companies already stockpiled millions of acres of our ocean for future offshore drilling. They are sitting on more than 8 million acres of unused leases, or about 75 percent of the total leased acreage of public waters. It's time to stop new offshore drilling and instead invest in a just transition to clean energy sources.

The 2010 *Deepwater Horizon* oil spill disaster killed eleven people and resulted in more than 200 million gallons of oil spewing into the Gulf of Mexico. Oil from the spill tarred hundreds of miles of Gulf coast shoreline stretching from Texas to Florida and devastated coastal economies. Losses to the seafood industry alone were estimated at nearly \$1 billion. The disaster had [deadly impacts](#) for dolphins, whales, sea turtles, and more.

President Biden, your Five-Year Plan represents the best opportunity to bring the management of our offshore federal resources into alignment with your climate goals. Preventing new dirty and dangerous offshore drilling in your final Five-Year Plan will protect coastal communities from devastating pollution, support healthy marine ecosystems, safeguard ocean wildlife, and encourage a clean energy future. Please issue a final 2023–2028 National Outer Continental Shelf Oil and Gas Leasing Program (“Five-Year Plan”) with no new lease sales.

Sincerely,

Susan Albright  
Council President  
City of Newton, Massachusetts

John Allen  
Alderman  
City of Southport, North Carolina

Charles Allen  
Councilmember  
District of Columbia

Dr. Emily Anderson  
Council Vice President  
City of Eau Claire, Wisconsin

Jennifer Andreu  
Councilmember  
City of Plantation, Florida

Katie Atkins  
Deputy Town Clerk  
Town of Sunset Beach, North Carolina

Zac Bears  
Council Vice President  
City of Medford, Massachusetts

Kathleen Beckman  
Councilmember  
City of Clearwater, Florida

Ravinder Bhalla  
Mayor  
City of Hoboken, New Jersey

Rhonda Bolton  
Council Member  
City of Huntington Beach, California

Nancy Metayer Bowen  
Commissioner  
City of Coral Springs, Florida

Alicia Bowman  
City Councilor  
City of Newton, Massachusetts

Jennifer Brahier  
Councilperson  
City of Pensacola, Florida

Mark Bunker  
Vice Mayor  
City of Clearwater, Florida

Benjamin Cahoon  
Mayor  
Town of Nags Head, North Carolina

Dennis Carlone  
City Councillor  
City of Cambridge, Massachusetts

Linda Chaney  
Representative  
Florida House of Representatives

Levern Clancy, Jr.  
Mayor  
City of Midway, Georgia

Joy Cooper  
Mayor  
Hallendale Beach, Florida

Scott Crater  
Councilmember  
City of Sanibel, Florida

Lindsay Cross  
Representative  
Florida House of Representatives

Deborah Crossley  
City Councilor  
City of Newton, Massachusetts

Chance Cutrano  
Mayor  
Town of Fairfax, California

Lula Davis-Holmes  
Mayor  
City of Carson, California

Luke Diaz  
Mayor  
City of Verona, Wisconsin

Andreae Downs  
City Councilor  
City of Newton, Massachusetts

Gina Driscoll  
Council Member  
City of St. Petersburg, Florida

Mark Enmeier  
Councilmember  
City of San Clemente, California

Anna Eskamani  
Representative  
Florida House of Representatives

Dawn Euer  
Senator  
Rhode Island Senate

Patricia Farrar-Rivas  
Councilmember  
City of Sonoma, California

Kate Felton  
Councilmember  
City of Eau Claire, Wisconsin

Cobi Frongillo  
Town Councilor  
Town of Franklin, Massachusetts

Beam Furr  
Commissioner  
Broward County, Florida

Jeff Gow  
Commissioner  
City of Dunedin, Florida

Jeremy Gragert  
Council Member  
City of Eau Claire, Wisconsin

Mark Grill  
Vice Mayor  
City of St. Pete Beach, Florida

Stephanie Hansen  
Senator  
Delaware Senate

Rita Harris  
Representative  
Florida House of Representatives

Pam Hemminger  
Mayor  
Town of Chapel Hill, North Carolina

Wyatt Hoover  
Mayor  
Town of Melbourne Beach, Florida

Will Jawando  
Councilmember  
Montgomery County, Maryland

Van Johnson  
Mayor  
City of Savannah, Georgia

Teri Johnston  
Mayor  
City of Key West, Florida

Elizabeth Jolin  
Council Member  
Islamorada, Florida

Dan Kalmick  
Councilmember  
City of Huntington Beach, California

Ariel Kelley  
Mayor  
City of Healdsburg, California

Andrea Kelley  
City Councilor  
City of Newton, Massachusetts

Nicole LaChapelle  
Mayor  
City of Easthampton, Massachusetts

Brent Latham  
Mayor  
North Bay Village, Florida

Alison Leary  
City Councilor  
City of Newton, Massachusetts

Janeese Lewis George  
Councilmember  
District of Columbia

Michael Lilliquist  
Council President  
City of Bellingham, Washington

Donald Lovette  
Commission Chairman  
Liberty County, Georgia

Elizabeth Maglio  
Town Councilor  
Town of Braintree, Massachusetts

Matt Mahan  
Mayor  
City of San Jose, California

Kristina Martens  
Councilperson  
City of Bellingham, Washington

Andria McClellan  
Councilmember  
City of Norfolk, Virginia

Holly Merrill Raschein  
Mayor Pro Tempore  
Monroe County, Florida

Robert Mooney  
Council Member  
Town of Duck, North Carolina

Nicole Morell  
Council President  
City of Medford, Massachusetts

Elizabeth Morey  
Mayor  
Town of Southern Shores, North Carolina

Brianne Nadeau  
Councilmember  
District of Columbia

Eli Naffah  
City Manager  
City of Trinidad, California

Patricia Nolan  
City Councillor  
Cambridge, Massachusetts

Emily Norton  
City Councilor  
City of Newton, Massachusetts

Nan Orrock  
Senator  
Georgia Senate

Deborah Penrose  
Mayor  
City of Half Moon Bay, California

Shelly Petrolia  
Mayor  
City of Delray Beach, Florida

Constance Preston  
City Councillor  
City of Newburyport, Massachusetts

Freddy Puza  
Councilmember  
City of Culver City, California

Idelma Quintana  
Commissioner  
City of Hollywood, Florida

Estelle Rand  
City Councilor  
City of Beverly, Massachusetts

Michele Rayner-Goolsby  
Representative  
Florida House of Representatives

Arlis Reynolds  
Councilmember  
City of Costa Mesa, California

Lisa Rodvien  
Council Member  
Anne Arundel County, Maryland

Deborah Ruddock  
Council Member  
City of Half Moon Bay, California

Corey Runte  
Commissioner  
Town of Melbourne Beach, FL

Kevin Ryan  
Representative  
Connecticut House of Representatives

Holly Ryan  
City Councilor  
City of Newton, Massachusetts

Esther Sanchez  
Mayor  
City of Oceanside, California

Leslie Sandberg  
Select Board Member  
Town of Provincetown, Massachusetts

Maria Scibelli Greenberg  
City Councilor  
City of Newton, Massachusetts

Damon Seils  
Mayor  
Town of Carrboro, North Carolina

Cheryl Selby  
Mayor  
City of Olympia, Washington

Shirley Sessions  
Mayor  
City of Tybee Island, Georgia

Paula Sherlock  
Councilperson  
Town of Southern Shores, North Carolina

Sumbul Siddiqui  
Mayor  
City of Cambridge, Massachusetts

Nancy Sikes-Kline  
Mayor  
City of St. Augustine, Florida

Victoria Smalls  
Executive Director  
Gullah Geechee Cultural Corridor

Donnie Tuck  
Mayor  
City of Hampton, Virginia

Erica Stewart  
Mayor  
City of San Luis Obispo, California

David Vigliotti  
Vice Mayor  
City of Satellite Beach, Florida

Bobby Wagner  
Mayor  
City of Destin, Florida

Katherine Waldron  
Representative  
Florida House of Representatives

Jimmy Ward  
Council Member  
City of Isle of Palms, South Carolina

Jay Watts  
Councilmember  
Town of Edisto Beach, South Carolina

Stana Weisburd  
Trustee  
Village of New Paltz, New York



Andrew Werthmann  
Councilmember  
City of Eau Claire, Wisconsin

Michael Wildes  
Mayor  
City of Englewood, New Jersey

Madinah Wilson-Anton  
Representative  
Delaware House of Representatives

Robin Wilt  
Councilmember  
Town of Brighton, New York

Marie Woodson  
Representative  
Florida House of Representatives

Quinton Zondervan  
City Councillor  
City of Cambridge, Massachusetts

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>, "Cruickshank, Walter" <Walter.Cruickshank@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Brown, William Y" <William.Brown@boem.gov>, "Carr, Megan E" <megan.carr@boem.gov>, "Lewandowski, Jill K" <Jill.Lewandowski@boem.gov>, "Kendall, James J." <James.Kendall@boem.gov>, "Boren, Douglas" <Douglas.Boren@boem.gov>, "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>, "Moriarty, Tracey B" <Tracey.Moriarty@boem.gov>

**Subject:** Re: [EXTERNAL] Letter to the President from more than 100 elected officials re: Five-Year Plan

**Date:** Tue, 25 Jul 2023 19:51:06 +0000

**Inline-Images:** image001.png

---

Thank you for sharing, Mike.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Messmer, Michael <mmessmer@oceana.org>

**Sent:** Tuesday, July 25, 2023 2:28 PM

**To:** Cruickshank, Walter <Walter.Cruickshank@boem.gov>; Farmer, Isis U <Isis.Farmer@boem.gov>; Brown, William Y <William.Brown@boem.gov>; Carr, Megan E <megan.carr@boem.gov>; Lewandowski, Jill K <Jill.Lewandowski@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>; Kendall, James J. <James.Kendall@boem.gov>; Boren, Douglas <Douglas.Boren@boem.gov>; Klein, Elizabeth A <Elizabeth.Klein@boem.gov>; Moriarty, Tracey B <Tracey.Moriarty@boem.gov>

**Subject:** [EXTERNAL] Letter to the President from more than 100 elected officials re: Five-Year Plan

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Hi Team BOEM,

Please find attached a letter from a bipartisan group of more than 100 state and local elected officials—transmitted to the White House today—urging President Biden to prevent new offshore drilling leases in his upcoming National Outer Continental Shelf Oil and Gas Leasing Program for 2023-2028. This group includes mayors, city council members, and state representatives. Twenty-eight mayors and 12 state legislators from 15 states signed the letter.

Thank you for your consideration. If you have any questions, please do not hesitate to let me know.

Sincerely,  
Mike Messmer

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1 202 467 1957 | **M** +1 202 286 0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "isis.farmer@boem.gov" <isis.farmer@boem.gov>, "Bill Brown, Chief Environmental Officer:" <william.brown@boem.gov>, "Megan Carr, Chief, Office of BOEM Strategic Resources:" <megan.carr@boem.gov>, "Jill Lewandowski, Chief, Division of Environmental Assessment:" <jill.lewandowski@boem.gov>, "Marissa Knodel, Advisor:" <marissa.knodel@boem.gov>, "James Kendall, Regional Director, Alaska:" <james.kendall@boem.gov>, "Douglas Boren, Regional Director, Pacific:" <douglas.boren@boem.gov>, "Elizabeth.Klein@boem.gov" <elizabeth.klein@boem.gov>, "tracey.moriarty@boem.gov" <tracey.moriarty@boem.gov>

**Subject:** [EXTERNAL] Letter to the President from business owners re: Five-Year Plan

**Date:** Fri, 22 Sep 2023 20:12:36 +0000

**Attachments:** Businesses\_Urge\_No\_New\_Leases\_in\_the\_5YP\_Letter.pdf

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Team BOEM,

Please find attached a letter from more than 50 business owners and business coalition leaders to the President expressing their strong support for no new offshore lease sales in the final Five-Year Plan.

Thank you for your consideration. If you have any questions, please do not hesitate to let me know.

Sincerely,  
Mike Messmer

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

September 20, 2023

The President  
The White House  
1600 Pennsylvania Avenue, NW  
Washington, DC 20500

Dear Mr. President:

As outdoor retailers and associated business leaders, we are increasingly concerned about the impacts of climate change on the wilderness, oceans, and waters that are critical to our successful businesses and our future. Expanded offshore oil and gas drilling not only puts marine wildlife, jobs, and communities at risk, but continues us down a path of ignoring some of the largest causes of the climate crisis. Accordingly, we are writing to you to express our strong support for no new offshore lease sales in the final five-year plan for offshore oil and gas drilling.

With sea levels rising and devastating extreme weather accelerating, it is crucial that we move to a clean energy economy and away from offshore drilling that threatens everything we hold dear. We call on you to keep your promise to end new leasing for offshore drilling. Finalizing an offshore drilling plan with no new leases is a vital step in tackling the climate crisis and protecting millions of jobs that rely on a healthy ocean.

We urge you to take action on climate now by protecting our coasts and closing the chapter on any new oil and gas leasing before it is too late. Ending new leasing is necessary to meet your goal of reducing greenhouse gas emissions by 50 percent by 2030, all while creating good-paying, clean energy jobs. New offshore oil and gas lease sales would lock in production for decades, resulting in hundreds of millions more metric tons of carbon dioxide emissions that are driving climate change.

Businesses and communities are facing the impacts of warming oceans, rising seas, and increasingly disastrous weather patterns. In 2021 alone, the U.S. experienced 20 separate billion-dollar weather and climate disasters, and in total natural disasters caused \$145 billion in damages last year. People living along the Gulf of Mexico, coastal Alaska, and elsewhere have shouldered the burdens imposed by the fossil fuel industry for far too long—from toxic oil spills that foul our beaches and trigger loss of confidence in seafood safety, to the long-term human health impacts from spills felt years later. Though we live and work in places across the nation, we all believe that that these injustices should not be perpetuated anywhere, and that none of the 3.3 million American jobs in fishing, tourism, and recreation and the \$250 billion in GDP our clean coast economy generates should be placed in jeopardy by drilling.

Preventing new offshore leases would not negatively affect oil and gas production. The industry currently holds more than 2,000 leases for offshore drilling, about 11 million acres of federal waters. Of that area, 8 million acres, approximately 75 percent, are currently unused. Additionally, increasing leasing will not lower gas prices for the public. If development on new leases started immediately, it would still take many years before the product makes it to the consumer. Alternatively, protecting federal waters would prevent over \$720 billion in damages to people, property and the environment, letting our businesses prosper long into the future.

As you finalize this five-year plan, we urge you to uphold your promise to end new offshore oil and gas leasing. Ending new leasing will protect our coasts, marine life, and the millions of jobs and businesses that rely on a healthy ocean. It is a vital step in tackling the climate crisis. We are counting on your leadership at this critical time.

Sincerely,

Isabel Llopart  
Surf Inn  
Hollywood, FL

Dave Burden  
Coastal Kayaks, Southeast Expeditions  
Cape Charles, VA

Jeffrey Cinciripino  
Scuba Shack Diving  
Rocky Hill, CT

Coley Faircloth  
The Grateful Diver  
Key West, FL

David Smith  
Senior Express USA  
Columbia, SC

Ashley Jeziorski  
Ash Wood Creative LLC  
Hoboken, NJ

MF Kite  
Aurora Wellness Services  
Mt Pleasant, SC

Abby Brown  
H2OM  
San Diego, CA

Marina White  
Fun Surf LA  
Los Angeles, CA

Alya Hopkins  
Salt Lake E-Bikes  
Salt Lake City, UT

Jodi Ascherman  
Ignite Om LLC  
Daytona Beach, FL

Clark Eising  
Hi-Tec Enterprises  
Oxnard, CA

Fabiano Taborda  
Luxyplay  
Sheridan, WY

Vipe Desai  
Surf Industry Members Association  
Huntington Beach, CA

Joe Digirolamo  
Thermore  
Orchard Park, NY

Lorena Azocar-Ahern  
Vane Brothers Marine Safety & Services  
Baltimore, MD

Kai Paul  
Indosole  
San Francisco, CA

Grant Bixby  
Business Alliance for Protecting the Pacific  
Coast  
Newport Beach, CA

Kit Hendrickson  
Kit Hendrickson Design  
Seattle, WA

Matias Requena  
Buena Onda Empanadas  
Santa Barbara, CA

Jennifer Valentine  
Business Alliance for Protecting the Pacific  
Coast  
Massapequa, NY

Jerry Rivers  
North American Climate, Conservation and  
Environment (NACCE)  
Roosevelt, NY

Charlie Clingman  
Forever Stoked  
Morro Bay, CA

Bill Hamilton  
Southern Horticulture, LLC  
St. Augustine, FL

Robin Miller  
Tampa Bay Beaches Chamber of Commerce  
St. Pete Beach, FL

Colleen Gnos  
Gnos Art  
San Luis Obispo, CA

Susan Sherod  
Architect  
Encinitas, CA

Jaz Kaner  
Banzai Surf Co, LLC  
Huntington Beach, CA

Monica Thibodeau  
Carolina Designs Realty, Inc.  
Duck, NC

Barbara Stafford Jones  
Cape May County Chamber of Commerce  
Cape May, NJ

Charlie Garlow  
DEEVA  
Rehoboth Beach, DE

Alexandra Merlino  
Bee Wild Outside  
Santa Fe, NM

Niki Mazaroli  
Open Water  
Chicago, IL

Autumn Blum  
Stream2Sea LLC  
Bowling Green, FL

Andrew Fischer  
Jason & Fischer, attorneys at law  
Brookline, MA

Eileen Wheeler Sheehan  
ABLE Associates  
Fall River, MA

Ron Durgin  
The Bike Center LLC  
Santa Monica, CA

Kathleen Dibona  
ZZ wolfman, inc.  
Hollywood, FL

Ashley Besecker  
Premier Catch  
Seattle, WA

Elizabeth Johnson  
Tybee Island Charters  
Tybee Island, GA

Timothy Arnold  
Tybee Clean Beach  
Tybee Island, GA

Stephanie Richardson  
Bahamas Scuba Adventures  
Raleigh, NC

Richard Brendel  
Flipper finders  
Folly Beach, SC

Matt Walker  
Outer Banks Milepost  
Kill Devil Hills, NC

Israel Golasa  
Beach Mart Inc  
Kitty Hawk, NC

Karen Forget  
Lynnhaven River NOW  
Virginia Beach, VA

Heidi Oleszczuk  
Heidi Rain Art  
Sag Harbor, NY

Peter Penniman  
Penniman Property Management  
Ithaca, NY

Mark Collins  
Blue Wave Adventures  
Murrells Inlet, SC

Deanna Reiniger  
Mindful Food Chef  
Little River, SC

Tom Kies  
Business Alliance for Protecting the Atlantic  
Coast  
Morehead City, NC



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** Automatic reply: [EXTERNAL] Letter to the President from business owners re: Five-Year Plan

**Date:** Fri, 22 Sep 2023 20:13:37 +0000

---

Hello!

I am out of office traveling Friday, September 22 through Sunday, September 24, and will have limited access to e-mail. In case of an emergency, please call 202-538-2415.

Peace,

Marissa Knodel

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "isis.farmer@boem.gov" <isis.farmer@boem.gov>, "Bill Brown, Chief Environmental Officer:" <william.brown@boem.gov>, "Megan Carr, Chief, Office of BOEM Strategic Resources:" <megan.carr@boem.gov>, "Jill Lewandowski, Chief, Division of Environmental Assessment:" <jill.lewandowski@boem.gov>, "Marissa Knodel, Advisor:" <marissa.knodel@boem.gov>, "James Kendall, Regional Director, Alaska:" <james.kendall@boem.gov>, "Douglas Boren, Regional Director, Pacific:" <douglas.boren@boem.gov>, "Elizabeth.Klein@boem.gov" <elizabeth.klein@boem.gov>, "tracey.moriarty@boem.gov" <tracey.moriarty@boem.gov>

**Subject:** [EXTERNAL] OCEANA press release on the 2024-2029 Proposed Final Program

**Date:** Fri, 29 Sep 2023 20:06:22 +0000

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Team BOEM,

Please find [here](#) Oceana's press release on the issuance today of the Proposed Final OCS Oil and Gas Leasing Program for 2024-2029.

Wishing all of you good luck in managing the likely government shutdown.

Sincerely,  
Mike Messmer

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** "Carr, Megan E" <megan.carr@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** Automatic reply: [EXTERNAL] OCEANA press release on the 2024-2029 Proposed Final Program

**Date:** Fri, 29 Sep 2023 20:06:38 +0000

---

I am currently out of the office and not available to monitor emails regularly, which may result in a delayed response. For urgent needs, please use the dates and contact information below to identify who is acting on my behalf at any point in time. For all things, please also 'cc Jenn Golladay, OSR Chief of Staff, at Jennifer.Golladay@boem.gov for additional monitoring.

Thank you for your patience.

September 25-29: Troy Ezell, at Troy.Ezell@boem.gov or (703) 787-1564

October 2-3: Beth Wenstrom, at Beth.Wenstrom@boem.gov or (703) 996-6939

October 4-6: Eric Turner, at Eric.Turner@boem.gov or (703) 787-1735

**From:** David Shadburn <dshadburn@lcv.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** RE: [EXTERNAL] Maritime crewing?  
**Date:** Fri, 8 Jul 2022 19:05:44 +0000

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Monday at noon ET would work for me! Happy to just give you a call on your cell at that time if that works, otherwise I can set up a Zoom – let me know what’s best for you. Will send you a calendar appointment in the meantime.

Talk to you then and have a great weekend!  
-David

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Friday, July 8, 2022 3:00 PM  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] Maritime crewing?

Hello David,

Yes, indeed we are! Happy to chat. I have a work trip next week so am a bit busy, but have some time on Monday, July 11 from noon-1:30, and Friday, July 15 from noon-1:00 or 2:00-3:00.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Wednesday, July 6, 2022 9:43 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Maritime crewing?

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Hope you had a nice July 4<sup>th</sup>! I’m wondering if you all are working on this offshore wind maritime crewing issue in the coast guard authorization bill at all and if we could chat about it sometime soon.

Let me know! Thanks again for all you do,  
-David

--

David Shadburn (he/him)  
Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078

**From:** David Shadburn <dshadburn@lcv.org>

**To:** "Vang, Kathy" <Kathy.Vang@boem.gov>

**Cc:** Leah Donahey <ldonahey@lcv.org>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Foreman, Jennafer (Jenna)" <Jennafer.Foreman@boem.gov>, America Fitzpatrick <afitzpatrick@lcv.org>, "wendy.money@boem.gov" <wendy.money@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

**Date:** Tue, 7 Mar 2023 14:42:12 +0000

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Here is a bio for Sam Bleicher

## **SAM BLEICHER** *Chair, VALCV*

Sam Bleicher serves as an adjunct professor with the Georgetown Law School and is a former member of the Virginia State Air Pollution Control Board.

This is the only planet we have, and Sam believes strongly that climate change, mineral and energy extraction, and agricultural land use threaten to make it uninhabitable for the population we have and expect. We need to create ecologically sustainable economic and social systems in which we and our descendants can not merely survive, but thrive.

As a Virginia LCV board member, Bleicher enjoys working to achieve our mutual goals with others who are committed to the same cause.

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**From:** David Shadburn

**Sent:** Tuesday, March 7, 2023 9:22 AM

**To:** Vang, Kathy <Kathy.Vang@boem.gov>

**Cc:** Leah Donahey <ldonahey@lcv.org>; Farmer, Isis U <Isis.Farmer@boem.gov>; Foreman, Jennafer (Jenna) <Jennafer.Foreman@boem.gov>; America Fitzpatrick <afitzpatrick@lcv.org>; wendy.money@boem.gov; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Hi Kathy (adding Wendy here who I know is the day-of contact),

I'm so sorry for this last minute ask. A board member from our Virginia state league is here for our fly-in who did not RSVP ahead of time. Is there any chance he can join us for the meeting? His name is Sam Bleicher.

We're looking forward to the meeting and will see you very soon!

David  
917 742 3078

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**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Sent:** Friday, March 3, 2023 9:17 PM  
**To:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; America Fitzpatrick <[afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Hi Kathy,

Sharing an updated attendee list below, with a few additional names removed (none have been added). This should be the final list, pending any surprises from our fly-in attendees.

I'm also sharing a few background materials ahead of our meeting:

- LCV Priorities for Executive Action (attached)
- [Coalition Letter](#) from December 2022 led by LCV “encouraging the Biden administration to take actions to accelerate the deployment of clean renewable energy and associated grid modernization and transmission expansion in ways that support community input and environmental review.”
- A Proposal to Advance Climate and Conservation Goals in Public Waters by the Outer Continental Shelf (OCS) Coalition (related to the 5-Year Plan for Offshore Oil and Gas) (attached).

Thank you again! Our fly-in attendees are really looking forward to this meeting. We really appreciate you all making the time.

-David

#### CVM Attendees

|          |                  |                                          |                |
|----------|------------------|------------------------------------------|----------------|
| America  | Fitzpatrick      | Conservation Program Director            | National LCV   |
| David    | Shadburn         | Government Affairs Advocate              | National LCV   |
| Aaron    | McCall Craddolph | Federal Advocacy Coordinator             | California     |
| Mattea   | Pechter          | Campaign and Organizing Manager          | California     |
| Mike     | Young            | Political & Organizing Director          | California     |
| Carol    | Davey            | Federal/Local Advocacy Manager           | Florida        |
| Kathleen | Meil             | Senior Director of Policy & Partnerships | Maine          |
| Margaret | Somer            | Program and Event Coordinator            | Maine          |
| Kelt     | Wilska           | Energy Justice Manager                   | Maine          |
| Susannah | Hatch            | Director of Clean Energy Policy          | Massachusetts  |
| Meghan   | Hoskins          | Field Organizer                          | New Hampshire  |
| Rob      | Werner           | New Hamp hire State Director             | New Hamp hire  |
| Allison  | McLeod           | Policy Director                          | New Jersey     |
| Ed       | Potosnak         | Executive Director                       | New Jersey     |
| Matt     | Salton           | Federal Campaigns Manager                | New York       |
| Stacey   | Freeman          | Lead Regional Field Organizer            | North Carolina |
| Luther   | Hemby            | Director of Civic Engagement             | North Carolina |
| Mark     | Robertson        | CVSC Board Member                        | South Carolina |
| John     | Tynan            | Executive Director                       | South Carolina |
| Colin    | Arnold           | Field Organizer                          | Virginia       |

|           |           |                             |          |
|-----------|-----------|-----------------------------|----------|
| Catherine | Setaro    | Hampton Roads Organizer     | Virginia |
| Jordan    | Seurattan | Northern Virginia Organizer | Virginia |

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**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>

**Sent:** Thursday, March 2, 2023 5 55 PM

**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>

**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)> ; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)> ; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; America Fitzpatrick <[afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)>

**Subject:** RE [EXTERNAL] Re Meeting Request Elizabeth Klein, Director, Bureau of Ocean Energy Management League of Conservation Voters Fly-in

David,

**Updated Arrival Instructions**

Please plan to arrive 15 minutes prior to allow time to go through our security screening and ensure everyone has an unexpired government-issued photo ID on their person.

Guests should arrive at our C St entrance (1849 C St NW)

- When checking in with security, please let them know the meeting POC is Wendy Money at 703-397-7230.

Guests will be escorted by Wendy to the Rachel Carson room after the security screening

**Kathy Vang**

Executive Assistant

Office of the Director

Bureau of Ocean Energy Management

U.S. Department of the Interior

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**From:** Vang, Kathy

**Sent:** Wednesday, March 1, 2023 10 23 AM

**To:** 'David Shadburn' <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>

**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)> ; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)> ; Foreman, Jennafer (Jenna) <[jennafer.foreman@boem.gov](mailto:jennafer.foreman@boem.gov)>; America Fitzpatrick <[afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)>

**Subject:** RE [EXTERNAL] Re Meeting Request Elizabeth Klein, Director, Bureau of Ocean Energy Management League of Conservation Voters Fly-in

Hi David,

Thank you. Please send me an updated attendees list if/when available, most importantly if any new attendees are added to the list

**Arrival Instructions**

- Please bring a mask/face covering

Please plan to arrive 15 minutes prior to allow time to go through our security screening and ensure everyone has an unexpired government-issued photo ID on their person.

Guests should arrive at our C St entrance (1849 C St NW)

- When checking in with security, please let them know the meeting POC is Wendy Money at 703-397-7230.

Guests will be escorted by Wendy to the Rachel Carson room after the security screening

**Kathy Vang**

Executive Assistant

Office of the Director

Bureau of Ocean Energy Management



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**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Sent:** Tuesday, February 28, 2023 6:01 PM  
**To:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; America Fitzpatrick <[afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Hi Kathy,

Thanks again for setting up this meeting for us! Sharing a proposed agenda below, as well as an updated attendee list (still long but a handful of names have come off it). It's possible more will drop off as we get closer – will be sure to let you know if that happens. I've attached bios for all current attendees to this email.

Thank you again! Will be sure to share any materials we may want to provide at least 2 business days ahead of time.

-David

#### Proposed Agenda

- Introductions, Thank Yous, and About Our Fly In
- Director Klein and BOEM staff share agency priorities, latest updates
  - How can LCV and our state leagues be helpful?
- State leagues raise specific issues, including:
  - Maximizing equitable offshore wind deployment and counteracting misinformation
  - Addressing offshore wind transmission
  - Oil and Gas, The Five Year Plan, local impacts

#### Current Attendees

|          |                  |                                          |                |
|----------|------------------|------------------------------------------|----------------|
| America  | Fitzpatrick      | Conservation Program Director            | National LCV   |
| David    | Shadburn         | Government Affairs Advocate              | National LCV   |
| Aaron    | McCall Craddolph | Federal Advocacy Coordinator             | California     |
| Mattea   | Pechter          | Campaigns and Organizing Manager         | California     |
| Mike     | Young            | Political & Organizing Director          | California     |
| Carol    | Davey            | Federal/Local Advocacy Manager           | Florida        |
| Aliki    | Moncrief         | Executive Director                       | Florida        |
| Kathleen | Meil             | Senior Director of Policy & Partnerships | Maine          |
| Margaret | Somers           | Program and Events Coordinator           | Maine          |
| Kelt     | Wil ka           | Energy Justice Manager                   | Maine          |
| Susannah | Hatch            | Director of Clean Energy Policy          | Massachusetts  |
| Meghan   | Hoskins          | Field Organizer                          | New Hampshire  |
| Rob      | Werner           | New Hampshire State Director             | New Hampshire  |
| Allison  | McLeod           | Policy Director                          | New Jersey     |
| Ed       | Potosnak         | Executive Director                       | New Jersey     |
| Matt     | Salton           | Federal Campaigns Manager                | New York       |
| Stacey   | Freeman          | Lead Regional Field Organizer            | North Carolina |
| Luther   | Hemby            | Director of Civic Engagement             | North Carolina |
| Mark     | Robertson        | CVSC Board Member                        | South Carolina |

|           |           |                             |                |
|-----------|-----------|-----------------------------|----------------|
| John      | Tynan     | Executive Director          | South Carolina |
| Colin     | Arnold    | Field Organizer             | Virginia       |
| Catherine | Setaro    | Hampton Road Organizer      | Virginia       |
| Jordan    | Seurattan | Northern Virginia Organizer | Virginia       |

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**From:** Vang, Kathy [Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)  
**Sent:** Tuesday, February 28, 2023 1:12 PM  
**To:** David Shadburn [dshadburn@lcv.org](mailto:dshadburn@lcv.org)  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[isis.Farmer@boem.gov](mailto:isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) [Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov) ; America Fitzpatrick [afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly in

Thanks, David

**Kathy Vang**

Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

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**From:** David Shadburn [dshadburn@lcv.org](mailto:dshadburn@lcv.org)  
**Sent:** Tuesday, February 28, 2023 9:10 AM  
**To:** Vang, Kathy [Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[isis.Farmer@boem.gov](mailto:isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) [Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov) ; America Fitzpatrick [afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly in

Thanks Kathy our fly in participants are all submitting their bios by today, which we're aiming to submit alongside an agenda by the end of the day today.

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**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Tuesday, February 28, 2023 1:02 PM  
**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[isis.Farmer@boem.gov](mailto:isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; America Fitzpatrick <[afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Hi David,

Please confirm attendees list as soon as possible as I will need to coordinate a large conference room for this meeting.

Thank you.

**Kathy Vang**

Executive Assistant  
Office of the Director

---

**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Sent:** Friday, February 24, 2023 1:51 PM  
**To:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; America Fitzpatrick <[afitzpatrick@lcv.org](mailto:afitzpatrick@lcv.org)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Hi Kathy,

Apologies for the late Friday email. Pasting below a list of likely attendees and which states they are coming from. It is very likely that not 100% of the people on this list will attend the actual meeting as we are balancing logistics of scheduling Hill and other Admin meetings over a two-day fly-in, but wanted to be sure you had the full universe of who is possible. We will be sure to update you all as soon as we can, including sending bios next week.

Thank you again!  
-David

|             |                  |                                                  |                |
|-------------|------------------|--------------------------------------------------|----------------|
| David       | Shadburn         | Government Affairs Advocate                      | National LCV   |
| America     | Fitzpatrick      | Conservation Program Director                    | National LCV   |
| Aaron       | McCall Craddolph | Federal Advocacy Coordinator                     | California     |
| Mike        | Young            | Political & Organizing Director                  | California     |
| Mattea      | Pechter          | Campaigns and Organizing Manager                 | California     |
| Aliki       | Moncrief         | Executive Director                               | Florida        |
| Carol       | Davey            | Federal/Local Advocacy Manager                   | Florida        |
| Margaret    | Somer            | Program and Event Coordinator                    | Maine          |
| Kathleen    | Meil             | Senior Director of Policy & Partnerships         | Maine          |
| Kelt        | Wilksa           | Energy Justice Manager                           | Maine          |
| David       | Melly            | Legislative Director, Environmental League of MA | Massachusetts  |
| Suannah     | Hatch            | Director of Clean Energy Policy                  | Massachusetts  |
| Rob         | Werner           | New Hampshire State Director                     | New Hampshire  |
| Meghan      | Hoskins          | Field Organizer                                  | New Hampshire  |
| Allison     | McLeod           | Policy Director                                  | New Jersey     |
| Ed          | Potonak          | Executive Director                               | New Jersey     |
| Joshua      | Klainberg        | Senior Vice President                            | New York       |
| Matt        | Salton           | Federal Campaigns Manager                        | New York       |
| Stacey      | Freeman          | Lead Regional Field Organizer                    | North Carolina |
| Luther      | Hemby            | Director of Civic Engagement                     | North Carolina |
| John        | Tynan            | Executive Director                               | South Carolina |
| Mark        | Robertson        | CVSC Board Member                                | South Carolina |
| Dane        | Levis            | Field Director - Climate Action Virginia         | Virginia       |
| Colin       | Arnold           | Field Organizer                                  | Virginia       |
| Christopher | Leyen            | Policy Director                                  | Virginia       |
| Jordan      | Seurattan        | Northern Virginia Organizer                      | Virginia       |
| Catherine   | Setaro           | Hampton Roads Organizer                          | Virginia       |

---

**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Wednesday, February 22, 2023 1:11 PM  
**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Can you please send me the list of attendees by this Friday, Feb 24th?

One week in advance for agenda and short bios.

Thank you.

**Kathy Vang**  
Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

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**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Sent:** Wednesday, February 22, 2023 9:02 AM  
**To:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Can do. When do you need the agenda and attendees + short bios by? Is that also 2 business days early or do you need those sooner?

---

**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Wednesday, February 22, 2023 12:59 PM  
**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Thanks, David!

Can you please provide an agenda and a list of attendees + short bios?

We do ask that you provide any materials you plan to show during the meeting to us 2 business days ahead of the meeting (no later than the business day before).

**Kathy Vang**  
Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management

U.S. Department of the Interior

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**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Sent:** Wednesday, February 22, 2023 8:56 AM  
**To:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[isis.Farmer@boem.gov](mailto:isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Thank you, Kathy! We can meet then! Let us know what you need from us to confirm.

-David

---

**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Wednesday, February 22, 2023 12:13 PM  
**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Farmer, Isis U <[isis.Farmer@boem.gov](mailto:isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Hi David,

Moving Director Klein and Marissa to bcc as I work on getting this scheduled.  
There's availability on Tuesday, March 7<sup>th</sup>, 10:30-11a ET.

**Kathy Vang**  
Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

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**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>  
**Sent:** Wednesday, February 15, 2023 9:35 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>; Farmer, Isis U <[isis.Farmer@boem.gov](mailto:isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>  
**Subject:** RE: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Thank you, Marissa! Let us know if it would be helpful to provide you all with any additional information.

-David

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Wednesday, February 15, 2023 10:50 AM  
**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>; Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>; Farmer, Isis U

<[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>

**Cc:** Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>

**Subject:** Re: [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly-in

Thanks, David!

I'm looping in Isis, Jenna, and Kathy in our Chief of Staff office to assist with review and potential scheduling.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>

**Sent:** Wednesday, February 15, 2023 9:16 AM

**To:** Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>

**Subject:** [EXTERNAL] Re: Meeting Request: Elizabeth Klein, Director, Bureau of Ocean Energy Management - League of Conservation Voters Fly in

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---

**From:** David Shadburn

**Sent:** Wednesday, February 15, 2023 9:14:30 AM

**To:** [elizabeth\\_klein@ios.doi.gov](mailto:elizabeth_klein@ios.doi.gov) [elizabeth\\_klein@ios.doi.gov](mailto:elizabeth_klein@ios.doi.gov)

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>

**Subject:** Meeting Request Elizabeth Klein, Director, Bureau of Ocean Energy Management League of Conservation Voters Fly-in

Dear Director Klein,

My name is David Shadburn, and I am a Government Affairs Advocate at the League of Conservation Voters focused on climate and clean energy. The League of Conservation Voters (LCV) along with and our 30 affiliated state organizations will be hosting an advocacy week in Washington, D C in early March **As part of this important week of climate action, we respectfully request a meeting with you on either Tuesday, March 7th or Wednesday, March 8<sup>th</sup>.**

We are grateful for your leadership centering climate and environmental justice at the heart of the actions you have led at BOEM. The actions you've already taken are unprecedented; however, more progress is needed since we are not yet on a path to address the climate crisis at the scale that science and justice require. The Biden-Harris administration has made transformational investments in climate action and clean energy, and equitably and swiftly administering those investments must be paired with accelerated, bold executive action to reduce climate and other pollution and deploy clean energy. That is why we are meeting with members across the Hill and the Biden-Harris administration to deliver on commitments to act on climate, advance environmental justice, create good jobs, and lower costs as quickly as possible.

BOEM has a lot of key decisions it needs to make in the year ahead on both oil and gas and offshore wind. We would like to meet to discuss these upcoming decisions, including the release of the 5-year plan for offshore oil and gas and the pending sale of offshore wind lease areas. We had a great opportunity to meet with your predecessor during our fly-in last year and would love to introduce you to our network of state leagues as well.

We are happy to come to the Department of the Interior or host the meeting at the Hamilton Hotel DC. Senior leadership from LCV and our state affiliates that traveled to DC for this meeting will be in attendance.

Thank you, and please let me know if there is any more information you need!

Best,

David Shadburn

--

David Shadburn (he/him)  
Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Cc:** "moniqueh@dscej.org" <moniqueh@dscej.org>, "grace@gcclp.org" <grace@gcclp.org>, "kendall@gcclp.org" <kendall@gcclp.org>  
**Subject:** Re: [EXTERNAL] Re: Meeting with BOEM on Friday  
**Date:** Fri, 13 May 2022 14:49:20 +0000

---

Thanks Dustin, that's very helpful and important for the BOEM team to hear. I will add that to the agenda.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Dustin Renaud <dustin@healthygulf.org>  
**Sent:** Friday, May 13, 2022 10:31 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** moniqueh@dscej.org <moniqueh@dscej.org>; grace@gcclp.org <grace@gcclp.org>; kendall@gcclp.org <kendall@gcclp.org>  
**Subject:** [EXTERNAL] Re: Meeting with BOEM on Friday

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Hi Marissa,

I am looking forward to speaking with you all in a few hours. After meeting with our team yesterday, I think the only other agenda piece that we would add is "questions and concerns from impacted communities". I understand this call is to really guide outreach and engagement of environmental justice communities, and we see policy as the real driver of community involvement. So, if we're better able to share with community members the importance of engagement for enhancing policy outcomes, we will be better able to engage folks to get involved.

In solidarity,  
Dustin Renaud

On Mon, May 9, 2022 at 12:41 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hello Monique, Grace, Kendall, and Dustin!

I hope you all are doing well and staying safe and healthy. I want to thank you all so much for participating in Friday's meeting with BOEM staff who represent leadership from our Gulf of Mexico office, as well as the leads for key program areas related to carbon sequestration, the development of the next five-year offshore leasing program, and offshore wind.

From our perspective, the purpose of this meeting is to meet one another and discuss *how we work together*, and best practices for outreach and engagement with underserved and environmental justice



communities in the Gulf region for BOEM programs and activities.

I'm sharing a draft agenda here and welcome your thoughts, questions, or additional topics you all want to cover, recognizing that we only have an hour but that this is hopefully just the first of an ongoing dialogue.

- Welcome and overview of meeting purpose -- Marissa
- Round of introductions -- Everyone
- Overview of BOEM programs and activities in the Gulf -- Mike Celata, Gulf of Mexico Regional Director
- Priorities/topics of interest for your organization
- Dialogue about best practices for outreach and engagement
- Identify next steps for keeping the conversation going

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

--

 [Healthy Gulf](#)

 [Healthy Gulf on Facebook](#)



**Dustin Renaud**

Communications Director

504 525 1528 x214

228 209 2194 (Cell)

PO BOX 2245

New Orleans, LA 70176

**Protect What You Love**

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** Re: [EXTERNAL] Meeting with Tommy B. next week

**Date:** Tue, 19 Apr 2022 20:47:41 +0000

**Inline-Images:** image001.jpg

---

Ooh--exciting. I'll look forward to seeing you on the computer screen!

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Monday, April 18, 2022 5:17 AM

**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Meeting with Tommy B. next week

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Well, as it turns out, Director Lefton has a schedule conflict so you're stuck with me representing BOEM!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, April 12, 2022 3:41 PM

**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Meeting with Tommy B. next week

Thanks for the notice! It's not on my schedule, I'm assuming because they wanted to keep the group manageable. Hope it goes well!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**Sent:** Tuesday, April 12, 2022 2:51 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Meeting with Tommy B. next week

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Hope you're doing well. I just wanted to give you a quick heads-up that a few of us from Ocean Conservancy have a meeting with some DOI folks next Wednesday at 1pm eastern to talk about OCS oil and gas and offshore wind. On our side, we're bringing Mike, Kathy T., Amy Trice and me. I think (?) we'll be meeting with Tommy Beaudreau, Amanda Lefton, Laura Daniel-Davis, Kenzie Landa and Steve Feldgus.

I'm guessing you already know about this (and maybe you're even planning to join?) but wanted to give you some notice just in case.

Let me know if you have questions.

Take good care,  
Andrew



Andrew Hartig  
he/him/his  
Director, Arctic Program  
750 W. 2nd Avenue, Suite 206  
Anchorage, AK 99501  
O: 907.885.3057  
M: 907.229.1690  
[ahartsig@oceanconservancy.org](mailto:ahartsig@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Meeting with Tommy B. next week

**Date:** Wed, 20 Apr 2022 18:22:14 +0000

**Inline-Images:** image001.jpg

---

I thought the meeting went great, thank you!

Yes, hopefully next time in can be in person (I'm hoping for Alaska rather than D.C.).

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**Sent:** Wednesday, April 20, 2022 2:09 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** Re: [EXTERNAL] Meeting with Tommy B. next week

Hi Marissa,

Just a quick follow-up to thank you (and Tommy, Laura and Kenzie) for your time earlier today. It was really good to see you on the computer screen; it seems like it has been forever. Not to count chickens, but maybe next time we meet, it can be in person.

Hope you're doing well, and thanks again.

-Andrew

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Monday, April 18, 2022 5:17 AM

**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Meeting with Tommy B. next week

**CAUTION:** This e-mail originated from outside of Ocean Conservancy. Do not click on links or open attachments unless you recognize the sender and know that the content is safe.

Well, as it turns out, Director Lefton has a schedule conflict so you're stuck with me representing BOEM!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Tuesday, April 12, 2022 3:41 PM  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Meeting with Tommy B next week

Thanks for the notice! It's not on my schedule, I'm assuming because they wanted to keep the group manageable. Hope it goes well!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Tuesday, April 12, 2022 2:51 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Meeting with Tommy B. next week

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,  
Hope you're doing well. I just wanted to give you a quick heads-up that a few of us from Ocean Conservancy have a meeting with some DOI folks next Wednesday at 1pm eastern to talk about OCS oil and gas and offshore wind. On our side, we're bringing Mike, Kathy T., Amy Trice and me. I think (?) we'll be meeting with Tommy Beaudreau, Amanda Lefton, Laura Daniel-Davis, Kenzie Landa and Steve Feldgus.

I'm guessing you already know about this (and maybe you're even planning to join?) but wanted to give you some notice just in case.

Let me know if you have questions.

Take good care,  
Andrew



Andrew Hartsig  
he/him/his  
Director, Arctic Program  
750 W. 2nd Avenue, Suite 206  
Anchorage, AK 99501  
O: 907.885.3057  
M: 907.229.1690  
[ahartsig@oceanconservancy.org](mailto:ahartsig@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] RE: New email & heads up about O&G review announcement

**Date:** Mon, 8 Mar 2021 22:30:24 +0000

**Inline-Images:** image001.png

---

Thank you!

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Monday, March 8, 2021 5:29 PM

**To:** Messmer, Michael <mmessmer@oceana.org>

**Subject:** Re: [EXTERNAL] RE: New email & heads up about O&G review announcement

Correct, this is just part of implementing Section 208 of the EO.

---

**From:** Messmer, Michael <[mmessmer@oceana.org](mailto:mmessmer@oceana.org)>

**Sent:** Monday, March 8, 2021 4:36 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] RE: New email & heads up about O&G review announcement

Hi Marissa,

Dumb question for you. It's my understanding that this just part of the review as mandated by the EO. This isn't part of an SO that may be coming down the road, is it? I just have some folks internally asking, and I want to be sure I'm classifying this right.

Many thanks!

Mike

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

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**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

---

**From:** Messmer, Michael

**Sent:** Monday, March 8, 2021 3:07 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] RE: New email & heads up about O&G review announcement

Will do!

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA  
D +1.202.467.1957 | M +1.202.286.0667  
E [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | W [www.oceana.org](http://www.oceana.org)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, March 8, 2021 3:04 PM  
**To:** Messmer, Michael <[mmessmer@oceana.org](mailto:mmessmer@oceana.org)>  
**Subject:** Re [EXTERNAL] RE New email & heads up about O&G review announcement

Thanks! Yes, typo in the first one. If you could make sure that Dustin with Healthy Gulf is looped into that group, I'd really appreciate it.

---

**From:** Messmer, Michael <[mmessmer@oceana.org](mailto:mmessmer@oceana.org)>  
**Sent:** Monday, March 8, 2021 3:01 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; [mmessmer@ocean.org](mailto:mmessmer@ocean.org) <[mmessmer@ocean.org](mailto:mmessmer@ocean.org)>  
**Cc:** Knodel, Marissa S <[marissa\\_knodel@ios.doi.gov](mailto:marissa_knodel@ios.doi.gov)>  
**Subject:** [EXTERNAL] RE: New email & heads up about O&G review announcement

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Hi Marissa,

Thanks so much! I'll keep it to the small group of OCS lobbyists and defense folks. I see one of the e-mails you used for me above says "[mmessmer@ocean.org](mailto:mmessmer@ocean.org)," leaving out the "a" in "oceana." It still got to me, however. Thanks!

All the best to you and your colleagues.

Mike

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA  
D +1.202.467.1957 | M +1.202.286.0667  
E [mme\\_mer@oceana.org](mailto:mme_mer@oceana.org) | W [www.oceana.org](http://www.oceana.org)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, March 8, 2021 2:47 PM  
**To:** [mmessmer@ocean.org](mailto:mmessmer@ocean.org)  
**Subject:** New email & heads up about O&G review announcement

Hello Mike!

I hope all is well with you. I want to 1) share my new BOEM e-mail with you, and 2) share some news about the comprehensive oil and gas review of DOI's leasing and permitting activities as mandated by the E.O. 14008: Tackling the Climate Crisis, Section 208.

**Please keep this information embargoed from press until after noon tomorrow.** This notification is to allow you to share the information among key OCS Defense and OCS Lobby folks in case you all want to prepare statements.

Tomorrow morning, likely around 11:00 a.m., DOI will send a press release to announce that BLM and BOEM will be holding a forum on March 25th as an initial step for this review. The day-long forum will feature several panels to highlight perspectives from industry representatives, labor and environmental justice organizations, natural resource advocates, and other experts (to be invited directly by DOI). The information gathered at the forum, which will be livestreamed, will help inform an interim report from the Department that will be completed in early summer. The report will include initial findings on the state of the federal conventional energy programs, as well as outline next steps and recommendations for the Department and Congress to improve stewardship of public lands and waters, create jobs, and build a just and equitable energy future. Members of the public will be able to offer written comments to inform the interim report. Details on how to view the forum or submit comments will be forthcoming.

I really look forward to engaging with you and the OCS Defense coalition during this review process. Please don't hesitate to reach out if you have questions.

Peace,

Marissa

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**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**To:** "Knodel, Marissa S" <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Re: No cell phone found  
**Date:** Wed, 20 Jul 2022 10:21:03 -0400

---

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Ok, thanks for checking!

On Wed, Jul 20, 2022 at 9:49 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

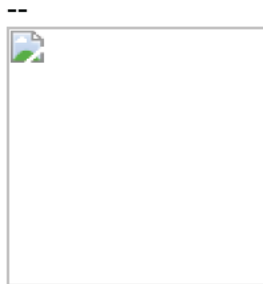
Hello Kendall,

I did not find a cell phone in the meeting room. You can call the front desk security which has a lost and found, or I can check later today.

Peace,

Marissa

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**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/him

---



■ [\(434\) 442-0179](tel:(434)442-0179)  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](http://taproot.earth)

---

*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

**From:** Katherine Tsantiris <ktsantiris@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] OCS Review March 25 event

**Date:** Thu, 11 Mar 2021 13:18:25 +0000

**Inline-Images:** image001.jpg

---

Thanks, Marissa!

---

Katherine Tsantiris  
she/her/hers  
Senior Manager, Government Relations  
Ocean Conservancy  
Phone: 202.280.6259

---

**From:** Knodel, Marissa S [mailto:Marissa.Knodel@boem.gov]

**Sent:** Wednesday, March 10, 2021 12:16 PM

**To:** Katherine Tsantiris

**Subject:** Re: [EXTERNAL] OCS Review March 25 event

Hello Kathy,

Great to hear from you, and thank you for the offer to help. We are currently discussing the forum and means of participation and will make a public announcement when final decisions are made. I can't speak to timing right now. In addition to the forum, there will also be an opportunity for anyone to submit comments to inform the interim report.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Katherine Tsantiris <ktsantiris@oceanconservancy.org>

**Sent:** Wednesday, March 10, 2021 10:06 AM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] OCS Review March 25 event

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Hi Marissa,

I hope that you are doing well, and that you are enjoying your new role at BOEM! Must have been a very busy and exciting last few months for you.

I am reaching out in regards to the oil and gas review event that will be taking place on March 25<sup>th</sup> to see if there was any information that you could share about a process for potential participation from the environmental community. As you know, Andrew Hartsig has a breadth of OCSLA knowledge and we think he could be a great value-add to the conversation. It would be great to see him participate if that is a possibility!

Totally understand if you are still figuring things out for the event, but just wanted to reach out to see if you had any insights you could share at this point.

Let us know how we can be helpful.

Thanks!  
Kathy



Katherine Tsantiris  
she/her/hers  
Senior Manager, Government Relations  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O: 202.280.6259  
F 202 872 0619  
[ktsantiris@oceanconservancy.org](mailto:ktsantiris@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] OCS bonding regulations?  
**Date:** Tue, 30 Nov 2021 01:13:40 +0000

---

Got it. Thanks Marissa.

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Monday, November 29, 2021 1:01 PM  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] OCS bonding regulations?

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Hey Andrew,

My interpretation of the E&E article is that they are referencing the proposed rule from last year that was never finalized. We are still in the process of reviewing the comments received during that comment period and have not released anything publicly yet about our next steps.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Monday, November 29, 2021 4:29 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] OCS bonding regulations?

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Hi Marissa,  
Happy belated Thanksgiving--hope you're doing well.

I was reading an E&E story about last week's oil and gas report, and noticed it said BOEM and BSEE "have already begun a rulemaking to update bonding regulations offshore." I did a quick scan on the agency websites and regs.gov, but didn't see anything. Do you know any more about the rulemaking? Can you point me in the right direction to learn more?

Thanks in advance!

Take good care,  
Andrew

Andrew Hart ig  
Director, Arctic Program  
Ocean Conservancy  
750 W. 2nd Avenue, Suite 206  
Anchorage, AK 99501  
O: 907.885.3057  
[ahartsig@oceanconservancy.org](mailto:ahartsig@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Cc:** Michael LeVine <mlevine@oceanconservancy.org>, Amy Trice <atrice@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: OCSLA and benefits for underserved communities  
**Date:** Tue, 3 Aug 2021 22:14:29 +0000

---

Andrew, Mike, and Amy,

Thank you all SO MUCH for this very helpful feedback. It was personally validating for me that we are thinking along similar lines when it comes to OCSLA authority for this strategy to benefit underserved communities. As I'm sure is clear, part of our challenge is finding evidence to support the legal connection, which will be project- and location-specific.

I also very much appreciate the thoughtful comment about unintended consequences, which gets at the additional challenge of what form "benefits" should take and how to administer them.

Lots to think about! Please don't hesitate to reach out if anything else comes to you.

Also, THANK YOU for submitting comments for the New York Bight PSN. Much appreciated!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Tuesday, August 3, 2021 2:00 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Michael LeVine <mlevine@oceanconservancy.org>; Amy Trice <atrice@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: OCSLA and benefits for underserved communities

Hi Marissa,

We've thought a bit more about the questions you raised concerning bidding credits for investments that benefit underserved communities. I'm not sure there is a clear-cut answer, but, then again, you probably wouldn't have asked if there were. Here are a few thoughts (and one concern at the end), for whatever they're worth

In terms of legal authority, it seems clear BOEM has discretion to consider this sort of thing under the regulations that govern multiple-factor bidding (30 C.F.R. § 585.220). Bidding credits for underserved communities certainly seem to fall under factors like "public benefits" and "compatibility with State and local needs," and the regulation gives BOEM discretion to consider factors that aren't explicitly listed. Guessing, of course, that you all have that base covered already.

Backing up to the statute itself, things aren't quite as straightforward, but as you mentioned § 1337(p)(4) factors require BOEM to provide for protection of the environment, which certainly includes human communities & therefore underserved communities. The "safety" and "fair return" requirements are broad enough to encompass these sorts of bidding credits (even if they don't require them). Also, we'd note that it is our understanding, from many of the communities with whom we work in Alaska, that Indigenous perspectives don't differentiate between human communities and the broader ecosystem/environment—they are all together. So, in some situations it might be appropriate to consider community support as conservation. Don't think that's what you're after here, but it is something to consider in other circumstances.

In terms of showing how bidding credits actually advance or stimulate OCS wind development, it seems like that's less of a legal authority question and more of a factual question that will depend on the circumstances of the affected communities. It might be possible to argue that investing in affected underserved communities will help ensure that development is more "orderly," which would be one way to tie it to the statutory language. In addition, this seems like the kind of situation in which an agency guidance document might be useful.

One other semi-related thought—we're 100% supportive of the idea of investing in underserved communities. At the same time, it will be important to ensure that in the process of incentivizing those sorts of investments, BOEM doesn't create unintended consequences for those communities, like meeting fatigue, creating confusion as multiple would-be developers propose different plans, or encouraging would-be developers to overpromise/overcommit (and underperform). It would also seem wise to ensure that whatever model or interpretation is used doesn't create unintended momentum toward expanded revenue sharing for offshore oil and gas activities.

Happy to noodle more on this if that would be useful. By the way, Ocean Conservancy will be submitting comments on the Proposed Sale Notice, too.

Andrew, Amy and Mike

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Thursday, July 29, 2021 9:24 AM  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>; Michael LeVine <mlevine@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: OCSLA and benefits for underserved communities

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Great, thanks again!

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Thursday, July 29, 2021 1:21 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Michael LeVine <mlevine@oceanconservancy.org>  
**Subject:** Re [EXTERNAL] Re OCSLA and benefits for underserved communities

Got it--that's helpful. I'll put my head together with Amy and see if we can come up with anything useful.

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Thursday, July 29, 2021 5 47 AM  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>; Michael LeVine <mlevine@oceanconservancy.org>  
**Subject:** Re [EXTERNAL] Re OCSLA and benefits for underserved communities

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Hello Andrew,

Yes, please feel free to pass this along to Amy, thank you!

After a conversation with the Solicitor's office yesterday, I'll put a finer point on what we need to answer:

- It seems clear to me that OCSLA allows for, even requires, consideration of impacts of BOEM-authorized activities on the human and coastal environments, which I would argue includes impacts to underserved communities.
- What we're considering is slightly different that mitigating impacts, though. To justify offering a bidding credit to developers for investments that directly benefit underserved communities, we need to demonstrate that such investments advance offshore wind development (or, in statutory language, the orderly and expeditious development of offshore wind on the OCS).

Thanks again!

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Wednesday, July 28, 2021 7:31 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Michael LeVine <mlevine@oceanconservancy.org>  
**Subject:** [EXTERNAL] Re: OCSLA and benefits for underserved communities

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Hi Marissa,  
Sorry to be slow getting back to you. And worse, I don't have a good answer. I haven't looked into that at all. Mike is out on vacation, but as far as I know, it's not something he's delved into, either. (Although you never know with Mike...).



Anyway, with your permission, I'd like to pass along this query to Amy Trice. She works on offshore wind issues for Ocean Conservancy and, while not an attorney herself, has worked with a bunch of lawyers on sticky OCS wind issues. It's possible this has come up for her, so she might have some good ideas.

Any issues with me forwarding your question to Amy?

Hope you're doing well and staying cool in the DC summertime.

Andrew

---

**From:** Knodel, Marissa S. <Marissa.Knodel@boem.gov>

**Sent:** Wednesday, July 28, 2021 7:23 AM

**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>; Michael LeVine <mlevine@oceanconservancy.org>

**Subject:** OCSLA and benefits for underserved communities

**CAUTION:** This e-mail originated from outside of Ocean Conservancy. Do not click on links or open attachments unless you recognize the sender and know that the content is safe.

Hello Andrew and Mike!

I hope you both are doing well and staying safe and healthy.

I'm reaching out with a question that I'm hoping you can help me address. As I'm sure you're aware, BOEM published a Proposed Sale Notice for the New York Bight, with a comment period that goes until August 13th: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/86-FR-31524.pdf>.

In the PSN, we asked for feedback on a proposal to award bidding credits to developers that directly invest in underserved community benefits. In addition to learning more about how to identify those communities and what those benefits might be, I am researching how we connect those bidding credits to our OCSLA authority, both the general purpose of the statute and our 43 USC 1337(p)(4) renewable energy factors specifically.

I'm curious whether you or others you know have researched this question, particularly the legal justification? Any thoughts are greatly appreciated!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>  
**Subject:** Automatic reply: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request  
**Date:** Thu, 7 Sep 2023 15:18:58 +0000

---

Hello!

I am out of the office Thursday, September 7 through Sunday, September 10 and will be slow to respond to e-mail. In case of an emergency, please call 202-538-2415.

Peace,

Marissa Knodel

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

**Date:** Fri, 15 Sep 2023 14:03:49 +0000

**Inline-Images:** image001.jpg

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Apologies, realizing I had not sent the invite yet. Sending over now. Thank you for your patience.

Best,  
Rachael

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Thursday, September 7, 2023 2:21 PM

**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Thank you! I can forward the invite to a few others.

Peace,

Marissa Knodel (she/her/they)

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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---

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Sent:** Thursday, September 7, 2023 1:52 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Great! Yes, those times were for Eastern. Let's go with Tuesday from 10-10:30am. I'll send a calendar invite. Is there anything you need ahead of time or anyone else on your team you would like me to include in the invite? Thank you!

Best,  
Rachael

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Thursday, September 7, 2023 1:35 PM  
**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hello Rachael,

Are those times Eastern? If so, then I can do 10:00-10:30 on Monday, Tuesday, or Thursday of that week.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Thursday, September 7, 2023 11:18 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Our sincerest apologies for our delay in finding a time to schedule a meeting with you. We would love to find a time to meet with you the week of September 18<sup>th</sup>. We are available for a meeting between 9:00am – 12:00pm Monday through Thursday (Monday and Wednesday could even be an in-person meeting). We look forward to talking to you in the near future. We can send further availability if you are not available that week. Thank you so much for your patience.

Best,  
Rachael

---

**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Friday, August 25, 2023 5:32 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Apologies for the delayed response I have been working internally to find a time when our team can meet, but I think some of our colleagues are OOO at the moment. I'll try to get an answer for you about meeting next week, but we might need to look to the first or second week of September, if that's ok with you Thank you so much for your patience, and I'll keep you posted about a meeting time.

Best,  
Rachael

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, August 22, 2023 12:45:48 PM  
**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hello Rachael,

Thank you for reaching out, I'm very interested in meeting with the Ocean Justice Team, and may loop in a few others here at BOEM that also contributed to the Ocean Justice Strategy. I have availability next Monday, August 28, from noon :00 p.m. ET or Tuesday, August 29, after 2: 0 p.m. ET.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Monday, August 21, 2023 3:04 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hi Marissa,

I hope you are doing well. I heard you and Andrew were able to meet up recently. I'm glad you both could connect while he was in town

Andrew mentioned that it would be ok if I emailed you directly to coordinate a meeting about ocean justice. I know we chatted about it briefly during our in-person meeting with you and Director Klien a few months ago, and to follow up on that topic, our Ocean Justice team would like to set up a meeting with you at your convenience. Additionally, we recently submitted a comment on the Ocean Justice Strategy to OSTP and CEQ, and I wanted to send that along to you for your reference and awareness.

Please let me know if there is a time that works best for you, and I am happy to coordinate scheduling with staff on our side. Thank you for your time and consideration.

Best,  
Rachael



Rachael DeWitt  
Manager, Government Relations  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O 202 351 0486  
[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Cc:** Bray Beltrán <bbeltran@oceanconservancy.org>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

**Date:** Tue, 19 Sep 2023 15:09:50 +0000

**Attachments:** OC\_Ocean\_Justice\_Strategy\_CEQ\_Comment\_Letter\_7.24.23.pdf

**Inline-Images:** image001.jpg

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Hi Marissa,

Thank you so much for the conversation today. We really enjoyed connecting with you around the ways that BOEM is integrating ocean justice and the thoughts you have for progress in the future. Please feel free to reach out as questions or opportunities arise. I've cc'ed Bray on this email should you want to reach out directly. We'd love to stay connected and work with you more. We'll continue to reach out as we create products that are relevant and/or hear of ways we think BOEM could engage in the ocean justice space. Thank you again for the opportunity to share our thoughts.

Best,  
Rachael

---

**From:** Rachael DeWitt

**Sent:** Tuesday, September 19, 2023 10:13 AM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Thursday, September 7, 2023 2:21 PM

**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>

**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Thank you! I can forward the invite to a few others.

Peace,

Marissa Knodel (she/her/they)

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Thursday, September 7, 2023 1:52 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Great! Yes, those times were for Eastern. Let's go with Tuesday from 10-10:30am. I'll send a calendar invite. Is there anything you need ahead of time or anyone else on your team you would like me to include in the invite? Thank you!

Best,  
Rachael

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**Sent:** Thursday, September 7, 2023 1 35 PM  
**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
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Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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---

**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Thursday, September 7, 2023 11 18 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request



Hi Marissa,

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Rachael

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Friday, August 25, 2023 5:32 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Best,  
Rachael

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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, August 22, 2023 12:45:48 PM  
**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hello Rachael,

Thank you for reaching out, I'm very interested in meeting with the Ocean Justice Team, and may loop in a few others here at BOEM that also contributed to the Ocean Justice Strategy. I have availability next Monday, August 28, from noon-3:00 p.m. ET or Tuesday, August 29, after 2:30 p.m. ET.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.5 8.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>

**Sent:** Monday, August 21, 2023 3 04 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hi Marissa,

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Andrew mentioned that it would be ok if I emailed you directly to coordinate a meeting about ocean justice. I know we chatted about it briefly during our in-person meeting with you and Director Klien a few months ago, and to follow up on that topic, our Ocean Justice team would like to set up a meeting with you at your convenience. Additionally, we recently submitted a comment on the Ocean Justice Strategy to OSTP and CEQ, and I wanted to send that along to you for your reference and awareness.

Please let me know if there is a time that works best for you, and I am happy to coordinate scheduling with staff on our side. Thank you for your time and consideration.

Best,  
Rachael



Rachael DeWitt  
Manager, Government Relations  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O 202 351 0486  
[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)



July 24, 2023

Dr. Arati Prabhakar  
Director, Office of Science and Technology Policy  
1650 Pennsylvania Avenue NW  
Washington, DC 20502

Brenda Mallory  
Chair, Council on Environment Quality  
730 Jackson Place NW  
Washington, DC 20506

Dear Director Prabhakar and Chair Mallory,

Thank you for the opportunity to comment on the development of the Biden administration's first Ocean Justice Strategy. Ocean Conservancy<sup>1</sup> is encouraged to see the continued public engagement and advancement of ocean justice from the Ocean Policy Committee (OPC).

If developed with rigor and inclusivity, the Ocean Justice Strategy (hereafter referred to as 'the Strategy') will help the United States address the disproportionate impacts of the climate crisis on vulnerable coastal and ocean-dependent populations. As sea level rises, storms become stronger, and the ocean becomes more acidic, underserved communities often stand to lose the most, including their culture, physical communities, and food security. As climate change harms those who most depend on the natural environment and are least resilient to its impacts, the need for ocean justice becomes ever greater and more complex. Persistent inequalities—which manifest as unequal access to the ocean and its resources, benefits and burdens—are an inherent threat to the well-being of the ocean and the communities who depend upon it. Such inequalities fragment people's relationships to the ocean, limit innovation in addressing ocean-climate impacts and obstruct our ability to effectively advocate for the most impactful solutions.

Ocean Conservancy encourages OPC to adopt a transparent, knowledge-based, and practical the Strategy which results in greater ability of the federal government to respond to the needs and aspirations of a wide range of fenceline communities and other marginalized and disadvantaged coastal communities. An equitable and just Ocean Justice Strategy should abide by the United Nations Declaration on the Rights of Indigenous Peoples and respect Tribal sovereignty, and it should embody principles described by Indigenous scholar Kyle Whyte (Potawatami) of consent, trust, accountability, and reciprocity, which are critical to maintain good relationships with and among human and non-human entities ([Whyte, 2019](#)).

The Strategy should build upon the Biden administration's commitments and initiatives on environmental justice, natural resource conservation, Indigenous knowledge, and climate action. It can also build upon existing lessons learned from ocean- and justice-focused programs, including designated Justice40 programs and the Bipartisan Infrastructure Law (BIL) and

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<sup>1</sup> Ocean Conservancy works to protect the ocean from today's greatest global challenges. We create evidence-based solutions for a healthy ocean and the wildlife and communities that depend on it.



Inflation Reduction Act (IRA) priorities. The actions in the Strategy will require multi-agency coordination and consistent engagement with environmental justice communities, ocean users, states and territories, Regional Fishery Management Councils, and other interested groups. The Strategy should identify lead Departments or Agencies for strategy items with clearly defined priorities and a well-developed plan for interagency coordination.

We recommend that the principles of the Strategy should be applied not just to federal agencies, but also their partners, grantees and collaborators, such as the Regional Fishery Management Councils.

Many Ocean Justice priorities were put forward in the [Ocean Justice Strategy Sign-on Letter](#) which Ocean Conservancy has endorsed. Our comments supplement and provide additional context for areas where Ocean Conservancy sees opportunities for systemic action.

### **Ocean Conservancy's Ocean Justice definition:**

“The fair and equitable distribution of both the benefits of the ocean’s bounty and the burdens of its complex care.”

Because of the myriad ways in which inequality impacts the ocean and the degradation of ocean health exacerbates inequality, the Strategy must be thoughtful, agile, intentional and always oriented toward a vision of a healthier ocean, protected by a more just world.

### **Communication and Collaboration**

*An effective and impactful Ocean Justice Strategy requires systemic changes in the ways in which the federal government approaches management choices and internal and external communication and coordination. The following list includes ideas for meeting this challenge:*

1. Improving the style and accessibility of communication between federal agencies and community organizations is essential for fostering collaboration and maximizing the impact of government initiatives. Federal agencies can enhance efficiency by customizing their communication approaches, partnering with trusted Ocean Justice liaisons (e.g. [Ocean Justice Advocacy Group \(OJAG\)](#)), and sharing best practices. Recognizing that various groups have distinct priorities, languages, and cultural sensitivities, agencies should employ tailored messaging and engagement strategies.
2. Federal agencies should prioritize transparency and accessibility in their communication methods. This can be achieved by establishing clear, consistent (both within and between Departments and Agencies) and user-friendly channels of communication, such as long-term dedicated liaisons, where community organizations can easily access information, updates, and resources. Additionally, regular town hall meetings or virtual roundtables with accessible features (e.g., language translation and ASL interpretation) and at accessible times (e.g. outside of business hours) should be organized to allow agencies to engage directly with community representatives, share their goals and plans, and gather feedback and suggestions.

3. By conducting thorough research and understanding the specific requirements of unique community archetypes, agencies can demonstrate their commitment to inclusivity and ensure that their initiatives reach those who need them the most. This can be achieved by hiring trained social scientists and cultural liaisons to conduct research and provide advice to agencies (e.g. [NOAA Sea Grant Programs DEIJ Community of Practice](#)). This approach can lead to stronger partnerships and more effective use of resources.
4. Federal agencies should seek regular input and evaluations from community organizations regarding the effectiveness of their communication efforts. By actively seeking feedback, identifying missing voices, and making space for constructive criticism, agencies can continuously improve their outreach strategies. Moreover, creating forums or platforms for community organizations to share their success stories, challenges, and best practices can lead to mutual learning and the development of innovative solutions. By maintaining a two-way communication approach through liaisons acting as conduits between agencies and communities, federal agencies can build trust and strengthen relationships with community organizations, ultimately driving positive change with greater efficiency.
5. Agencies should meaningfully and genuinely engage with affected communities by addressing past harms and histories by taking responsibility for past harms and coming up with joint solutions. Assess conceptualizations of ocean justice from communities, identify the communities that this Strategy impacts, work collaboratively with Tribes and engage in meaningful consultation with Tribes (e.g. [Southeast Alaska Sustainability Strategy](#)), conduct outreach and information exchange sessions with communities, and fairly pay communities for their labor.
  - a. We agree with the definition of Meaningful Consultation with Tribes that the Ocean [Justice Strategy Sign-on Letter](#) uses.
6. The Strategy can help ensure respect for and enhancement of the unique relationship between the federal government and Tribal governments. Government-to-government consultation processes can be improved to ensure that Tribal communities are resilient in the face of climate crises and other pressing issues. Federal agencies can strengthen collaboration and consultation processes with Tribal governments, ensuring that their perspectives, traditional knowledge, and concerns are integrated into all agency actions and policy decisions. Active engagement and a co-production approach will help in the development and implementation of plans that address the unique challenges faced by Indigenous communities.
7. Agencies should concretely develop strong connections between the Strategy's barriers, goals, and outcomes via robust implementation plans, establish clear benchmarks and metrics to evaluate the Strategy's impact on its ocean justice goals, ensure equity in the employment pipeline, and dedicate essential funds to carry out this Strategy.
8. Proactive communication and engagement are the foundation for responsive decision-making that reflects the interests and needs of all ocean users, communities, and Tribal governments. We encourage the OPC to define the Strategy actions that advance collaborative planning that advances priorities for communities. Meaningful

co-planning and consultation with Tribes are critical. Tribes and underserved communities do not have unlimited resources and capacity. OCAP priority actions should work to advance and support the ability to access funding and boost technical, community-centered capacity necessary to adapt to climate change.

## Accessibility and Technical Assistance

*System changes within the Federal government should reduce barriers and support increased accessibility and technical assistance for communities. By simplifying the application process, providing targeted support, and fostering collaboration, federal funds can become more accessible to community organizations and individuals, ensuring a more inclusive and diverse approach to ocean justice.*

1. Ensuring accessibility of federal funds to community organizations and individuals with non-conventional, environmental justice, or non-Western science conservation backgrounds is crucial in fostering inclusive and equitable environmental initiatives. To achieve this, the first step is to streamline the application process. Government agencies should simplify the language and requirements in grant applications, making them more accessible to a broader audience. Utilizing plain language and clearly describing evaluation criteria, providing funding for application preparation, and avoiding jargon will empower community-based organizations and individuals from various backgrounds to confidently apply for funding. For example, increase the number of communities who receive technical assistance and energy planning support from DOE's Energy Transitions Initiative Partnership Project (ETIPP) beyond the 10-12 communities it supports every 12-18 months.
2. Promoting collaboration and partnership is key in making federal funds more accessible. Government agencies should actively engage with community groups, local stakeholders, and grassroots organizations to foster relationships and encourage joint project proposals. By promoting collective efforts, federal funds can be utilized more effectively to address environmental challenges in diverse communities, allowing individuals without a conservation background to play an active role in environmental justice initiatives.
3. Millions of dollars have been made available to address these resilience needs through grants, direct assistance, and other means via the IRA (e.g., Sections 80001 and 80002). Living on islands, citizens and residents of U.S. territories also find themselves vulnerable to climate change and should also benefit from the IRA funds and assistance (Section 50241). While these people, groups, and the climate challenges they face did receive some funds and attention from this legislation, the OPC needs to ensure these benefits are deployed, monitored, and coordinated with other aspects of the IRA and Justice40.
4. Disadvantaged communities along the coast, particularly those of color, often find themselves less likely to recover after a climate disaster or even live with ongoing

pollution impacts. For instance, those near ocean ports are often subjected to high levels of harmful diesel emissions from ships and trucks. Federal efforts to decarbonize and reduce these emissions received a boost from the IRA (e.g., Sections 60102-60105) as well as specific funds to reduce these threats through the IRA's EPA Environmental and Climate Justice Block Grants (Section 60201). The Strategy, in addition to OCAP, can help guide these resources by requiring justice considerations from the inception of programmatic planning.

5. In order to boost opportunities for technical assistance that addresses unique regional and local ocean and environmental injustices, the OPC should support the establishment of a coastal technical assistance network, spanning diverse coastal states and regions, inspired by the model of the EPA's Environmental Justice Thriving Communities Technical Assistance Centers ([TC-TAC](#)) Program. The TC-TAC Program equips local communities organizations and their trusted allies to "provide training and other assistance to build capacity for navigating federal grant application systems, writing strong grant proposals, and effectively managing grant funding" to those in their communities who seek federal resources. This model empowers local groups to have ownership over the services they offer to surrounding communities and supports them in ensuring that they can prioritize addressing issues that impact their regions, as they understand and experience such challenges first hand.
6. Financial and technical assistance from federal agencies can significantly bolster the capacity of these communities to adapt to climate change and mitigate its impacts. This support may include funding for infrastructure upgrades, renewable energy projects, and sustainable agriculture practices. Moreover, capacity-building initiatives that empower Tribal members with the skills and knowledge to respond effectively to climate challenges can be implemented. By investing in the development of local expertise and resources, federal agencies enable Tribal communities and fence line residents to take ownership of their protection strategies and make informed decisions that align with their cultural values.

## Representation and Capacity Building

1. Investment in workforce development and job training to support a just transition through the Strategy actions planned around coastal conservation and access, renewable energy, green shipping, and the transition away from oil and gas development could all prioritize partnerships and investment that advance well-paying jobs for communities who have been unduly burdened with the impacts of fossil fuel development and climate change. The Strategy should prioritize policies and investment in workforce development such as through the NOAA Climate-ready workforce program, NOAA's youth engagement and John A. Knauss fellowship programs, and the [Hispanic Access Foundation's MANO Project](#).
2. Providing targeted training and support is essential in breaking down barriers. The government should invest in educational programs and workshops specifically designed to guide non-traditional applicants through the grant application process and provide financial compensation for participants. By offering technical assistance, mentorship, and capacity-building resources, community organizations and individuals can better



understand the complexities of environmental funding opportunities and enhance their proposals. For example, the DOE's ETIPP could include workforce development and training for electricity management and infrastructure maintenance by locals.

3. NOAA should ensure that management decisions reflect equity and environmental justice principles, including via the Regional Fishery Management Council process and that underserved communities have meaningful representation throughout the management and decision-making process. This must include improving diversity in Council membership, including dedicated Indigenous representation, and that these members are offered compensation for their time and effort. We suggest an added action to the Strategy committing the Secretary of Commerce to such in the Council appointments process, and ultimately working toward seeking Congressional authorization or mandate to modify the requirements for the nomination and appointment process to require representation from Tribes and underserved communities.
4. Use existing best practices and guides, such as the suite of actions under Environmental Justice Staff Training and Support found on page 15 of the California Coastal Commission's Environmental Justice Policy, as support for the Strategy. Training should include hiring and building internal champions, and mandating diversity, equity, justice, unconscious bias and related training across the agency, advisory bodies and Councils.

## Conclusion

We are excited about the potential for positive change that the Strategy, shaped by this public comment period offers, and we encourage OPC to foster a transparent and inclusive process and provide relevant updates on the progress of the Strategy.

We thank OPC for the opportunity to comment on the first Ocean Justice Strategy and for your commitment to the well-being of the ocean and the communities that depend on it. We eagerly anticipate your involvement and look forward to collectively shaping an impactful Ocean Justice Strategy

Sincerely,  
Bray Beltrán  
Director, Ocean Justice  
Ocean Conservancy





**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Cc:** Bray Beltrán <bbeltran@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

**Date:** Tue, 19 Sep 2023 16:18:28 +0000

**Attachments:** Ocean\_Justice\_Strategy\_RFI\_Comment\_BOEM\_7.26.23.docx

**Inline-Images:** image001.jpg

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Hello Rachael and Bry,

Thank you both so much for today's conversation, I hope it's the first of more on this topic, and next time I'd love to loop in the staff leading this work at BOEM.

Attached are the comments BOEM submitted directly, so please do not circulate outside of Ocean Conservancy.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

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---

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Sent:** Tuesday, September 19, 2023 11:09 AM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Cc:** Bray Beltrán <bbeltran@oceanconservancy.org>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Thank you so much for the conversation today. We really enjoyed connecting with you around the ways that BOEM is integrating ocean justice and the thoughts you have for progress in the future. Please feel free to reach out as questions or opportunities arise. I've cc'ed Bray on this email should you want to reach out directly. We'd love to stay connected and work with you more. We'll continue to reach out as we create products that are relevant and/or hear of ways we think BOEM could engage in the ocean justice space. Thank you again for the opportunity to share our thoughts.

Best,  
Rachael

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**From:** Rachael DeWitt  
**Sent:** Tuesday, September 19, 2023 10:13 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

---

**From:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Thursday, September 7, 2023 2:21 PM  
**To:** Rachael DeWitt [rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Thank you! I can forward the invite to a few others.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.5 8.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Thursday, September 7, 2023 1:52 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Great! Yes, those times were for Eastern. Let's go with Tuesday from 10-10:30am. I'll send a calendar invite. Is there anything you need ahead of time or anyone else on your team you would like me to include in the invite? Thank you!

Best,  
Rachael

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**From:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Thursday, September 7, 2023 1:35 PM  
**To:** Rachael DeWitt [rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hello Rachael,

Are those times Eastern? If so, then I can do 10:00 10: 0 on Monday, Tuesday, or Thursday of that week.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.5 8.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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---

**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Sent:** Thursday, September 7, 2023 11:18 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Our sincerest apologies for our delay in finding a time to schedule a meeting with you. We would love to find a time to meet with you the week of September 18<sup>th</sup>. We are available for a meeting between 9:00am – 12:00pm Monday through Thursday (Monday and Wednesday could even be an in-person meeting). We look forward to talking to you in the near future. We can send further availability if you are not available that week. Thank you so much for your patience.

Best,  
Rachael

---

**From:** Rachael DeWitt [rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
**Sent:** Friday, August 25, 2023 5:32 PM  
**To:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Apologies for the delayed response. I have been working internally to find a time when our team can meet, but I think some of our colleagues are OOO at the moment I'll try to get an answer for you about meeting next week, but we might need to look to the first or second week of September, if that's ok with you. Thank you so much for your patience, and I'll keep you posted about a meeting time

Best,

Rachael

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Tuesday, August 22, 2023 12:45:48 PM

**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>

**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hello Rachael,

Thank you for reaching out, I'm very interested in meeting with the Ocean Justice Team, and may loop in a few others here at BOEM that also contributed to the Ocean Justice Strategy. I have availability next Monday, August 28, from noon-3:00 p.m. ET or Tuesday, August 29, after 2:30 p.m. ET.

Peace,

Marissa Knodel (she/her/they)

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>

**Sent:** Monday, August 21, 2023 3:04 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hi Marissa,

I hope you are doing well. I heard you and Andrew were able to meet up recently. I'm glad you both could connect while he was in town.

Andrew mentioned that it would be ok if I emailed you directly to coordinate a meeting about ocean justice. I know we chatted about it briefly during our in-person meeting with you and Director Klien a few months ago, and to follow up

on that topic, our Ocean Justice team would like to set up a meeting with you at your convenience. Additionally, we recently submitted a comment on the Ocean Justice Strategy to OSTP and CEQ, and I wanted to send that along to you for your reference and awareness.

Please let me know if there is a time that works best for you, and I am happy to coordinate scheduling with staff on our side. Thank you for your time and consideration.

Best,  
Rachael



Rachael DeWitt  
Manager, Government Relations  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O: 202.351.0486  
[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

Department of the Interior  
Ocean Environmental Justice Strategy Comments

**BUREAU OF OCEAN ENERGY MANAGEMENT**

The mission of the Bureau of Ocean Energy Management (BOEM) is to manage development of U.S. Outer Continental Shelf (OCS) energy and mineral resources and sequester carbon dioxide in an environmentally and economically responsible way. BOEM's management responsibilities include resource assessments; leasing and permitting to provide appropriate access to energy, mineral, and geological resources; environmental, economic, technical, and fiscal reviews; scientific research; and lease management throughout the lifecycle of OCS energy, mineral, and sequestration projects. BOEM directly supports energy security, environmental protection, and economic development through rigorous environmental reviews and decision-making informed by the best available science and knowledge.

In carrying out these responsibilities, BOEM aims to be an environmental justice leader by advancing policies, programs, activities, and decision-making processes in an accessible and inclusive manner that involves the fair treatment and meaningful involvement of all people regardless of race, color, gender, national origin, or income. BOEM is glad to inform and participate in development of the Ocean Justice Strategy through an all-of-government approach with both Federal and non-Federal entities, and in partnership with impacted groups and communities.

***Definitions.* What is ocean justice? How do you define ocean justice in the context of your community and your work?**

BOEM welcomes the opportunity to define ocean justice in partnership with impacted groups and communities. In the context of BOEM's mission and authorities, ocean justice has both procedural and substantive aspects. Procedurally, ocean justice occurs when all people potentially impacted by BOEM-authorized activities have meaningful opportunities to participate in decision-making processes where their input is given due consideration and there is reciprocal communication about whether or how their input influenced the ultimate decision. Substantively, ocean justice occurs when the benefits and burdens of BOEM-authorized activities are equitably distributed (e.g. income is broadly distributed and risks are sufficiently mitigated for all ocean users and stakeholders).

***Barriers to Ocean Justice.* What are the barriers to realizing ocean justice? What key challenges do you face in achieving ocean justice? What ocean justice challenges do you see as central to Federal Government action?**

- Resources to provide for meaningful participation
- Accessibility of information and communication practices
- Meeting and engagement fatigue
- Equitable distribution of benefits resulting from BOEM-authorized activities
- Managing for and addressing impacts across jurisdictions and differing authorities
  - BOEM’s mission and authority is for the OCS, which ends at state waters. However, there are nearshore and onshore impacts of OCS projects related to supporting industries and facilities, downstream processes, and indirect effects that are difficult to connect to specific projects. Offshore energy products are often untraceable (via proprietary industry information) once they go onshore for processing or distribution. For example, there is abundant literature exploring the environmental justice concerns of the petrochemical corridor of the Mississippi river between New Orleans and Baton Rouge known as “Cancer Alley.” While it is known that many of these petrochemical facilities connect to OCS facilities or use OCS-derived products, this area is outside of BOEM’s jurisdiction. These facilities also incorporate other domestic and international inputs, making downstream-minded policymaking and decision-making difficult.
- Multi-user marine spatial planning
  - Sociocultural considerations, such as viewshed and recreational experience, become challenging to manage for because their definition and expectation can change from one ocean user and stakeholder to another. Proactively identifying communities that have been historically marginalized in federal ocean decision-making, giving them a meaningful opportunity for participation in decision-making, and amplifying their voices is necessary.

***Opportunities for Ocean Justice.* What elements, activities, and components should the Ocean Justice Strategy include? What injustices related to the ocean should the Federal Government better address? What successful regional or local efforts to remedy past harms or advance ocean justice should be applied nationwide? What examples do you have of instances when the Federal Government made a just decision related to the ocean, and how might that be scaled up or broadened? What does ocean justice in Federal actions and decision-making look like in practice?**

- Value and integrate the input heard from impacted groups and communities throughout decision-making processes, and consistently follow-up with how input was addressed
- Streamline and make accessible information relevant to communities

- Ensure engagements are accessible and respect community complexities (like linguistic and cultural complexities) by using multiple languages, being culturally sensitive, and creating opportunities that are both written and spoken
- Develop relationships and engage one-on-one with impacted ocean users and stakeholders to learn about their experiences, interests, priorities, and potential impacts
- Investment in social science research and equity assessments co-designed with impacted groups and communities

***Research and Knowledge Gaps. What are the research and knowledge gaps that we need to address for the Federal Government to create and advance an effective Ocean Justice Strategy and take equitable and ambitious action?***

In general, there are research and knowledge gaps about cumulative impacts in the short- and long-term, effective mitigation measures, and benefits from BOEM-authorized activities that an Ocean Justice Strategy could help fill through collaborative engagement and information- and knowledge-sharing. Some specific research questions that relate to an effective Ocean Justice Strategy include:

- How will offshore wind change local fishing environments for all fisherfolk (subsistence, commercial, recreational)?
- How has oil and gas development in the Gulf of Mexico OCS impact the baseline health of the Gulf of Mexico? This would help to better quantify the future and cumulative impacts from this type of development.
- Will offshore wind and offshore carbon sequestration benefit the communities that they impact?
- How have offshore sediments been utilized and managed regarding environmental justice communities? These finite resources can be used to mitigate cumulative impacts from climate change, anthropogenic landscape modifications, and state and federal policies, all of which might disproportionately impact environmental justice populations on or near vulnerable coastlines.

***Tools and Practices. How can the Federal Government harness existing environmental justice tools and practices, such as the Climate and Economic Justice Screening Tool (CEJST),<sup>[14]</sup> EJ Screen,<sup>[15]</sup> and EnviroAtlas,<sup>[16]</sup> to answer questions about justice in ocean policy? What new tools and practices are necessary to advance ocean justice?***

- The federal government does not have a unified or standard approach for receiving and tracking input from impacted groups and communities; distributing information to responsible agencies; tracking how inputs are incorporated; and providing feedback to communities.



- Given the broad scope and multi-jurisdictional nature of ocean activities, there are a variety of tools each with their own variables and indicators that can result in agencies coming to different justice impact conclusions. This disparity in evaluation tools and interpretations should be a consideration for the Ocean Justice Strategy.
- Most tools are based on American Community Survey (ACS) data to screen populations. This data is not accurate below the county level for rural areas, especially in the Gulf of Mexico coastal communities. Margins of error are often obscured, and in some cases compounded as tools add in computed indexes based off multiple inputs of unreliable data. This data uncertainty at the smaller scale—the level needed for identifying ocean justice communities—could result in these same communities being overlooked. Tools and practices that improve data precision at local levels, such as on-the-ground primary research and surveys, are important to ensure that impacted groups or communities are not missed. The inclusion of income/poverty status on the decennial census, as it has a larger sampling coverage than the ACS, can provide higher quality data from which to better base decisions.

***Partnerships and Collaboration.* What ocean justice solutions can or should be led by non-Federal entities? Where and how can the Federal Government partner with Tribal, Territorial, State, and local governments, as well as external stakeholders across regions and sectors, to effectively remedy past harms and advance ocean justice?**

- The Ocean Justice Strategy should support the collaborative development of ocean justice solutions between Federal, Tribal, territorial, State, and local governments, and impacted ocean users and stakeholders across regions and sectors. An organizing and facilitating entity would be helpful to ensure there is robust interagency coordination where there are interconnected activities or impacts that span across multiple jurisdictions and authorities. For example, having BOEM staff coordinate with onshore agencies and State governments with jurisdiction through the lens of ocean justice would allow BOEM's technical and experiential knowledge to inform onshore environmental justice activities. Such a coordinated approach could have the additional benefit of reducing the meeting and input burden on impacted communities.
- The Strategy could help facilitate discussion on principles of diversity in data collection methods informed by researchers, scientists, and knowledge-holders from diverse backgrounds, including data transparency, ethical protection of information, and integration of local and traditional knowledge from communities with environmental justice concerns into decision-making.
- A potential ocean justice solution that could benefit from collaborative discussion between Federal and non-Federal entities across regions and sectors, particularly on the topic of remedying past harms, is the potential development of principles and the identification of opportunities for ocean co-stewardship.
- Resources, including funding, for ocean justice solutions should be leveraged from multiple public and private sources, including the federal government. The Ocean Justice Strategy

could help track and create accountability for the use, management, and application of federal funds and programs aimed at ocean justice.

***Additional Considerations. What else would you like considered in the development of the Ocean Justice Strategy?***

Offshore oil spill analyses and response plans: BOEM recognizes that accidental releases of oil in the ocean environment may disproportionately impact overburdened and underserved communities and communities with unique dependencies on marine resources. A number of Federal agencies have responsibilities around oil spill prevention, preparedness, and response in U.S. offshore waters. Regulatory requirements specify what oil and hazardous substance spills information must accompany plans submitted to BOEM including oil spill response planning information and a modeling report.<sup>1</sup> BOEM also requires industry to provide evidence of oil spill financial responsibility. The bureau's [Oil-Spill Risk Analysis \(OSRA\)](#) modeling program supports BOEM's environmental impact assessments.<sup>2</sup> The Ocean Justice Strategy could help incorporate equity and justice considerations more fully in oil spill analyses and spill response plans, potentially pulling from ocean-based disaster prevention and recovery best practices.

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<sup>1</sup> [https://www.boem.gov/sites/default/files/boem-newsroom/Library/Publications/2019/2019\\_0404\\_OSPRR\\_Final.pdf](https://www.boem.gov/sites/default/files/boem-newsroom/Library/Publications/2019/2019_0404_OSPRR_Final.pdf)

<sup>2</sup> <https://www.boem.gov/environment/oil-spill-modeling/oil-spill-modeling-program>

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Cc:** Bray Beltrán <bbeltran@oceanconservancy.org>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

**Date:** Tue, 19 Sep 2023 16:35:28 +0000

**Inline-Images:** image001.jpg

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Hi Marissa,

Thank you for sharing your comments. We will absolutely keep them internal and not share outside of Ocean Conservancy. We look forward to continuing to work with you and your colleagues on ocean justice.

Best,  
Rachael

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**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, September 19, 2023 12:18 PM

**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Cc:** Bray Beltrán <bbeltran@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Peace,

Marissa Knodel (she/her/they)

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**Sent:** Tuesday, September 19, 2023 11 09 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Bray Beltrán [bbeltran@oceanconservancy.org](mailto:bbeltran@oceanconservancy.org)  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

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Best,  
Rachael

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**Sent:** Tuesday, September 19, 2023 10:13 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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**Sent:** Thursday, September 7, 2023 2 21 PM  
**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
**Subject:** Re [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Thank you! I can forward the invite to a few others.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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Best,  
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**Sent:** Thursday, September 7, 2023 1:35 PM  
**To:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>  
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Hello Rachael,

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Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
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Hi Marissa,

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Best,  
Rachael

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Best,  
Rachael

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**From:** Rachael DeWitt <[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)>

**Sent:** Monday, August 21, 2023 3:04 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hi Marissa,

I hope you are doing well. I heard you and Andrew were able to meet up recently. I'm glad you both could connect while he was in town.

Andrew mentioned that it would be ok if I emailed you directly to coordinate a meeting about ocean justice. I know we chatted about it briefly during our in-person meeting with you and Director Klien a few months ago, and to follow up on that topic, our Ocean Justice team would like to set up a meeting with you at your convenience. Additionally, we recently submitted a comment on the Ocean Justice Strategy to OSTP and CEQ, and I wanted to send that along to you for your reference and awareness.

Please let me know if there is a time that works best for you, and I am happy to coordinate scheduling with staff on our side. Thank you for your time and consideration.

Best,  
Rachael



Rachael DeWitt  
Manager, Government Relation  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O: 202.351.0486  
[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Bray Beltrán <bbeltran@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, Rachael DeWitt  
<rdewitt@oceanconservancy.org>

**Subject:** RE: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

**Date:** Thu, 21 Sep 2023 19:43:23 +0000

**Inline-Images:** image001.jpg

---

Hello Marissa,

Thank you very much for taking the time yesterday! I really enjoyed our conversation and like you I look forward to many more and to meet the other staff at BOEM working on justice.

Best,  
Bray.

---  
Bray Beltrán  
he/him/el  
Director of Ocean Justice  
Ocean Conservancy  
O: 771-200-4502

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, September 19, 2023 12:18 PM

**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Cc:** Bray Beltrán <bbeltran@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

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Hello Rachael and Bry,

Thank you both so much for today's conversation, I hope it's the first of more on this topic, and next time I'd love to loop in the staff leading this work at BOEM.

Attached are the comments BOEM submitted directly, so please do not circulate outside of Ocean Conservancy.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management



202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Rachael DeWitt [rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
**Sent:** Tuesday, September 19, 2023 11:09 AM  
**To:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Cc:** Bray Beltrán <[bbeltran@oceanconservancy.org](mailto:bbeltran@oceanconservancy.org)>  
**Subject:** RE [EXTERNAL] Ocean Conservancy Ocean Justice Meeting Request

Hi Marissa,

Thank you so much for the conversation today We really enjoyed connecting with you around the ways that BOEM is integrating ocean justice and the thoughts you have for progress in the future. Please feel free to reach out as questions or opportunities arise I've cc'ed Bray on this email should you want to reach out directly We'd love to stay connected and work with you more. We'll continue to reach out as we create products that are relevant and/or hear of ways we think BOEM could engage in the ocean justice space Thank you again for the opportunity to share our thoughts.

Best,  
Rachael

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**From:** Rachael DeWitt  
**Sent:** Tuesday, September 19, 2023 10:13 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
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Thank you! I can forward the invite to a few others.

Peace,

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O 202 351 0486  
[rdewitt@oceanconservancy.org](mailto:rdewitt@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>

**To:** "marissa.knodel@boem.gov" <marissa.knodel@boem.gov>

**Cc:** Michael LeVine <mlevine@oceanconservancy.org>, Katherine Tsantiris <ktsantiris@oceanconservancy.org>

**Subject:** [EXTERNAL] Ocean Conservancy comments on comprehensive review

**Date:** Thu, 15 Apr 2021 22:48:15 +0000

**Attachments:** 2021.04.15\_Ocean\_Conservancy\_DOI\_Comp\_Review\_Oil\_and\_Gas.pdf

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Hello Marissa,

I hope you're doing well. For your awareness, I'm passing along the comments Ocean Conservancy submitted for DOI's comprehensive review of federal oil and gas programs.

As you might imagine, we focused on offshore issues that might be of particular interest to you and others at BOEM.

As always, we're happy to answer questions and provide additional information. I've copied Mike and Kathy on this message. Please don't hesitate to reach out to any of us if we can be helpful.

Take good care,  
Andrew

Andrew Hartsig  
Director, Arctic Program  
Ocean Conservancy  
750 W. 2nd Avenue, Suite 206  
Anchorage, AK 99501  
O: 907.885.3057  
[ahartsig@oceanconservancy.org](mailto:ahartsig@oceanconservancy.org)  
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750 W. 2nd Avenue  
Suite 206  
Anchorage, AK 99501



Phone: 907-885-3057  
[www.oceanconservancy.org](http://www.oceanconservancy.org)

The Honorable Deb Haaland, Secretary  
U.S. Department of the Interior  
1849 C Street, N.W.  
Washington DC 20240

Submitted via email at [energyreview@ios.doi.gov](mailto:energyreview@ios.doi.gov)

April 15, 2021

Re: Comprehensive review of the federal oil and gas program

Dear Secretary Haaland:

Ocean Conservancy welcomes the Department of the Interior's comprehensive review of the federal oil and gas program, as called for in President Biden's Executive Order 14008. Thank you again for the opportunity to present our perspectives—focused on offshore oil and gas activities—during the virtual public forum on March 25. The comments that follow expand on those remarks and reference additional resources that may be useful as the Bureau of Ocean Energy Management (BOEM) develops plans to update and reform management of oil and gas activities on the Outer Continental Shelf (OCS).

**The Interior Department must lead a rapid, just and equitable transition away from fossil fuels.**

This administration has recognized the “urgent need to tackle the climate crisis.” Doing so will require a rapid, just, and equitable transition away from fossil fuels and toward renewable energy sources. This transition is needed to prevent catastrophic impacts from climate change and ocean acidification and to ensure the continued vitality of coastal communities, Tribes and cultures. Although such a transition cannot happen overnight, it must begin now. As steward of public lands and waters, the Department of the Interior has a significant role to play in furthering a just transition. An important starting point is for the Department to take aggressive action to ensure its regulations, policies and guidance set the stage for a time when we no longer allow extraction of fossil fuels from public lands, either on- or offshore.

In transitioning away from fossil fuels, the Department of the Interior must:

- **Ensure agency decision-making processes properly account for all climate, ocean acidification and other impacts from oil and gas activities.** The agency must consider impacts from extraction and combustion of fossil fuels, as well as the production and use of petrochemicals, which are derived from oil and gas. The production and consumption of plastic, in particular, has substantial climate change impacts and results in other air, water and health effects.
- **Account for the oil and gas industry's disproportionate impacts to Black, Indigenous and other communities of color.** As part of this process, the Department of the Interior must find ways, including funding and training, to ensure a sustainable economic transition for individuals and communities.

- **Explicitly recognize Tribal sovereignty and find ways to work collaboratively with Indigenous people, coastal communities, and others.** Inclusion and meaningful partnership, including recognizing Indigenous Knowledge as equal to western science, are vital to a fair and just transition.

**BOEM should initiate a rulemaking process to modernize and reform OCS regulations.**

The Department of the Interior finalized the rules governing OCS oil and gas planning, leasing and exploration in the early 1980s. The planning and leasing rules have not been updated in any substantive way since that time. As a result, regulations governing OCS oil and gas activities have not kept pace with industry’s push to drill in deeper and more remote waters, technological advances or changes in policy priorities.

Congress gave the Interior Department considerable flexibility to interpret and implement the OCS Lands Act. BOEM and the Bureau of Safety and Environmental Enforcement (BSEE) can and should take advantage of this flexibility by updating regulations to reflect current priorities, including climate change and ocean acidification, consultation with Tribes and consideration of environmental justice issues.

BOEM and BSEE should launch a comprehensive effort to modernize and reform OCS regulations. In updating OCS regulations, BOEM and BSEE can focus on the following categories of changes:

- **Prioritize healthy, productive ocean ecosystems:** The OCS Lands Act requires environmental safeguards; BOEM and BSEE regulations should underscore the importance of ocean health and ensure that any extraction of mineral resources is consistent with that priority.
- **Clarify and improve implementation of the National Environmental Policy Act (NEPA):** Changes should mandate proper consideration of climate change, ocean acidification and environmental justice impacts. Updated regulations can also clarify NEPA requirements for each stage of the OCS Lands Act process, and identify appropriate uses of tiering and categorical exclusions. Regulatory changes can also better define cumulative impacts analyses; require analysis of low-probability, high-risk events; and ensure environmental assessments are subject to meaningful public review and comment.
- **Ensure effective consultation with Tribes and incorporation of Indigenous Knowledge:** The agency can establish procedures to ensure robust and meaningful consultation with affected Tribes and the solicitation and incorporation of Indigenous Knowledge on equal footing with western science.
- **Modernize regulations governing five-year planning:** Existing regulations provide little guidance for agency staff and decision-makers. BOEM should revise regulations so they more effectively describe factors to be considered under OCS Lands Act section 18(a)(2) and provide direction for “balancing” under section 18(a)(3). Updated regulations should also require BOEM to account for option value in the planning process, ensure it has access to adequate baseline ecosystem information before including areas in a five-year program and identify important marine areas. They should also recognize explicitly that exploration and development carry different risks in different regions (e.g., oil spills behave differently and may present more risks in cold waters) and that the assessment of risks must be tailored and cannot be one-size-fits all. These changes could also make clear the OCS Lands Act does not require that a five-year program include lease sales, as long as holding no sales best meets other statutory obligations.
- **Update regulations governing lease sales:** BOEM should reconsider area-wide leasing, ensure leasing targets only those areas where the benefits of leasing outweigh risks and take steps to ensure the government is receiving fair market value for leases. Regulations governing the lease

sale processes should also include updated rent and royalty provisions to account for externalities, including climate change, ocean acidification and other pollution impacts.

- **Address issues with regulations governing exploration:** BOEM should change its approach to the 30-day timeline for approval of exploration plans. Regulations should clarify that an EIS is possible at the exploration stage and that an exploration plan should not be deemed submitted until the NEPA process is complete. Regulations should also prohibit the use of “conditional approvals.” If an operator cannot meet established standards, its exploration plan should be denied. Regulations should also be changed to ensure oil spill response plans are subject to public review and comment. In addition, BOEM and BSEE should discard proposed changes to the 2016 Arctic Drilling Rule.<sup>1</sup> This rule, put in place after the *Deepwater Horizon* disaster and Shell’s failed attempts to discover oil in the Beaufort and Chukchi seas, are commonsense provisions and should remain in place.
- **Regulations should require increased transparency:** Regulatory changes can require Interior Department agencies to post—on a public website and in a timely manner—non-privileged information on exploration, permitting, inspections, monitoring and enforcement. Regulations can also ensure information on OCS incidents and near-misses is available to the public. We encourage the administration to consider re-starting efforts to join the Extractive Industries Transparency Initiative.

**The Biden Administration should work with Congress to reform the OCS Lands Act.**

The Department of the Interior can accomplish a tremendous amount by modernizing and updating the regulations that govern OCS oil and gas activities. It should launch a comprehensive regulatory reform effort as soon as possible. At the same time, the Biden-Harris administration should work with Congress on legislation that permanently overhauls the nation’s OCS energy policy to address threats posed by climate change and ocean acidification, issues of Tribal sovereignty, disproportionate impacts to Black, Indigenous and other communities of color, and other challenges.

Legislation can be more ambitious than regulatory reform. While new legislation could tackle several of the issues raised in the regulatory reform section above, it could also explicitly recognize and account for the need to transition away from fossil fuels; permanently prohibit the issuance of new OCS leases in all or most OCS planning areas; modernize OCS policy to prioritize protection of healthy, functioning ocean, and coastal ecosystems; and end tax subsidies. In addition to changes to the OCS Lands Act, needed revisions would require amendments to the Oil Pollution Act of 1990 (OPA 90), the Clean Water Act and tax laws.

Additional detail about needed statutory changes can be found in the selected resources compiled in Appendix A and in the offshore oil and gas reform concepts detailed in Appendix B.

---

<sup>1</sup> Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf; Final Rule, 81 Fed. Reg. 46,478, 46,478-46,566 (July 15, 2016).



**Conclusion**

The changes suggested above were compiled from recommendations made by the National Commission on the *Deepwater Horizon* and Offshore Drilling, legislation that was proposed but not passed, legal/scientific scholarship and other sources. More detailed information on these many of these recommendations can be found in Appendix A. Please do not hesitate to contact us if you have questions or need additional information.

Sincerely,

Andrew Hartsig  
Director, Arctic Program  
Ocean Conservancy

Michael LeVine  
Senior Arctic Fellow  
Ocean Conservancy

## Appendix A: Selected Resources

### *Deepwater Horizon Reports:*

U.S. Chemical Safety and Hazard Investigation Board, Investigation Report Vol. I: Explosion and Fire at the Macondo Well, Report No. 2010-10-I-OS (June 5, 2014). Available at:

<https://www.dco.uscg.mil/Portals/9/OCSNCOE/OCS%20Investigation%20Reports/Macondo%20-%20DWH%20Reports/CSHIB%20Report%20Vol%20I%20Final.pdf?ver=2017-10-05-072747-303>

U.S. Chemical Safety and Hazard Investigation Board, Investigation Report Vol. II: Explosion and Fire at the Macondo Well, Report No. 2010-10-I-OS (June 5, 2014). Available at:

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U.S. Coast Guard, Report of Investigation into the Circumstances Surrounding the Explosion, Fire, Sinking and Loss of Eleven Crew Members Aboard the MOBILE OFFSHORE DRILLING UNIT *DEEPWATER HORIZON* in the GULF OF MEXICO, April 20 – 22, 2010. Volume I

MISLE Activity Number: 3721503 (Undated). Available at:

<https://www.dco.uscg.mil/Portals/9/OCSNCOE/OCS%20Investigation%20Reports/Macondo%20-%20DWH%20Reports/DWH%20ROI%20USCG%20Vol%20I%20Redacted%20Final.pdf?ver=2017-10-05-072821-053>

U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, Report Regarding the Causes of the April 20, 2010 Macondo Well Blowout (September 14, 2011).

Available at:

<https://www.dco.uscg.mil/Portals/9/OCSNCOE/OCS%20Investigation%20Reports/Macondo%20-%20DWH%20Reports/DWH%20DOI%20Vol%20II%20Final.pdf?ver=2017-10-05-072747-303>

National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling, Report to the President (January 2011). Available at:

<https://www.govinfo.gov/content/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf>

On Scene Coordinators, On Scene Coordinators Report, Deepwater Horizon Oil Spill, Submitted to the National Response Team (September 2011). Available at:

<https://repository.library.noaa.gov/view/noaa/283>

### Academic Articles and Reports:

Robert T. Anderson, Protecting Offshore Areas from Oil and Gas Leasing: Presidential Authority under the Outer Continental Shelf Lands Act and the Antiquities Act, 44 Ecology Law Quarterly 727 (2018). Available at:

<https://www.ecologylawquarterly.org/wp-content/uploads/2020/03/Protecting-Offshore-Areas-from-Oil-and-Gas-Leasing-Presidential-Authority-under-the-Outer-Continental-Shelf-Lands-Act-and-the-Antiquities-Act.pdf>

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## Appendix B: Offshore Oil and Gas Reform Concepts

The Outer Continental Shelf Lands Act (OCSLA) governs management of offshore oil and gas activities in federal waters. The statute was enacted in 1953 and amended substantially in 1978. Since that time, the statute has retained its core structure and elements. The Oil Pollution Act of 1990, passed in the wake of the *Exxon Valdez* spill, provides additional guidance for response and remediation. Current management was imported largely from land-based extraction schemes and takes a single-sector approach to management. A more holistic approach to managing ocean resources would help improve sustainability, resilience and ocean health. Short of such fundamental change, there are significant opportunities to improve the management of offshore oil and gas activities within the existing framework.

Some of the problems with the current regime and the potential solutions were made evident in the wake of the *Deepwater Horizon* tragedy. Though some progress has been made by the Department of the Interior and industry, Congress has taken no action to address the shortcomings of OCSLA and related legislation.

Congress should take action to improve the management of offshore oil and gas activities. The list below has been compiled from recommendations made by the National Commission on the *Deepwater Horizon* and Offshore Drilling, legislation that has been introduced but never passed, and legal/scientific scholarship. The concepts for reform tier to the existing structure of OCSLA and are grouped according to the manner in which they would affect that process: general/structural, planning/leasing, exploration/development, and response/liability. Some of the proposed revisions listed below would require amendments to the Oil Pollution Act of 1990 (OPA 90); others would require small changes to the Clean Water Act or tax laws.

### **General/Structural**

There are some fundamental problems with the current management regime, including its priority for development over sustainable management, lack of direction/opportunity for research and preparedness, and failure to require consideration of climate change impacts and the need to transition to renewable energy. Some of these challenges could be addressed through the following changes:

- Establish protection, maintenance, and restoration of coastal and ocean ecosystems as the paramount OCS policy objective and specify that extraction of mineral resources should be permitted only when consistent with that priority.
- Use some portion of the revenue generated from leasing and production to create a trust that would fund ocean research, monitoring and observing. This work could be used to facilitate planning, establish baselines, and promote protection, restoration and resilience of coastal and Great Lakes ecosystems.
- Require the Department of the Interior to consider the climate change impacts of decisions, including the cost of CO<sub>2</sub> emissions from both authorized activities and downstream activities (e.g., burning extracted oil and gas).
- Require a full review—akin to the one started under the Obama administration for the coal leasing program—of the costs and benefits of the existing offshore oil and gas program. Such a review should include (among other things) climate change impacts, effects on the energy market, and impacts to the ocean.

- Codify the divisions of MMS into BOEM, BSEE and ONRR.
- Codify the requirement the four stages of OCSLA are a one-way ratchet, such that areas excluded in a preceding phase may not be considered in later stages.
- Strengthen and clarify National Environmental Policy Act (NEPA) practices in the OCS context, including ensuring appropriate use of tiering (reliance on previous NEPA analyses) and categorical exclusions (a way of bypassing NEPA analysis for actions that do not have significant impacts) and clarification of NEPA requirements for each stage of the OCSLA process (including explaining that an Environmental Impact Statement may be necessary at all four stages of the process).
- Amend the provision describing allowable uses of the Oil Spill Liability Trust Fund (OSLTF) to
  - explicitly allow for OSLTF monies to be used for spill preparedness, including scientific research, monitoring and observing;
  - increase funding for Coast Guard operations; and
  - add NOAA to the list of agencies eligible to receive funding from OSTLF.
- Reinststitute the per-barrel tax at 10 cents per barrel with no sunset provision.

### **Planning/Leasing**

A series of improvements should be made to the five-year planning and leasing stages of the OCSLA process. Deficiencies in the current process have been made clear by a series of lawsuits and the most recent draft plan, which reflects a waste of resources and unwillingness to respect the wishes of coastal states.

- Eliminate area-wide leasing unless there is compelling reason to use it. Make the default smaller sales in high-value areas to increase competition and facilitate environmental analyses.
- Codify the requirement to charge rent for leases for the period of time they are unused and to increase the amount of rent as an incentive to develop or relinquish leases.
- Direct a wholesale revision of planning and leasing regulations, which are inadequate and have not changed substantively since being implemented in the early 1980s.
- Clarify the Section 18 balancing process by:
  - Establishing standards for the net-benefits calculation;
  - Providing guidance on the interaction between the set of three broad factors described in 43 USC § 1344(a)(1) and the eight more specific factors enumerated in 43 USC § 1344(a)(2);
  - Requiring more robust consideration and prioritization of environmental factors and clarifying that the health of marine ecosystem should be a priority consideration;
  - Requiring explicit recognition that exploration and development carries different risks in different regions (e.g., oil spills behave differently and may present more risks in cold waters) and that the assessment of risks must be tailored and cannot be one-size-fits all.

- Prohibit leasing or other activities in specific portions of the OCS either permanently or for a time certain and/or prohibit the Secretary of Interior from issuing leases on OCS lands that are adjacent to states that have prohibited OCS oil and gas activities.
- Require a specific level of baseline science, monitoring and observing in areas before exploration or development can proceed.
- Require a threshold level of infrastructure (e.g., ports, response assets) before leasing is allowed in OCS areas.
- Ensure appropriate analysis of low probability, high risk events.

### **Exploration/Development**

At the exploration and development stages, changes should focus on improving safety and preparedness and ensuring that operators pay their fair share and fund needed inspections and science.

- Codify safety regulations developed and finalized during the Obama administration: the 2010 Drilling Safety Rule, SEMS I (2010), SEMS II (2013), Well Control Rule, Arctic Standards Rule.
- Direct a revision of the regulations governing exploration, which do not provide sufficient guidance.
- Eliminate the thirty-day window for approval of exploration plans; clarify that an EIS is possible at the exploration stage and that an exploration plan should not be deemed submitted until the NEPA process is complete.
- Lower the threshold at which the Secretary of the Interior is required to disapprove an exploration or development plan such that disapproval is required if the plan would probably cause unwarranted damage to the marine, coastal, or human environment or if there is not enough information to determine possible damage.
- Raise royalty rates to ensure that operators pay the true cost of operations including externalities like the cost of greenhouse gas emissions.
- Implement specific requirements for monitoring, protection of marine mammal populations, and data availability in areas in which seismic testing is allowed.
- Add public right of action for enforcement of MMPA's incidental take provisions.
- Increase funding, including fees on operators, to better provide for:
  - necessary safety inspections;
  - development of spill prevention and response technologies; and
  - hiring, training, and deployment of agency (BOEM, BSEE, NOAA) safety inspectors, scientists, engineers, etc.



- Establish regional advisory bodies to provide citizen oversight of oil and gas activities (such as the Prince William Sound Regional Citizens' Advisory Committee –<http://www.pwsrccac.org/>)

### **Response/Liability**

The *Deepwater Horizon* was the first big spill to occur under the OPA 90 regime put in place after the *Exxon Valdez* disaster. The spill made apparent some very significant problems. To address them, the following steps could be taken:

- Increase or eliminate the \$75 million limit on damages for oil spills and consider higher liability limits for frontier areas and increased penalties for damage or loss of National Wildlife Refuge assets.
- Impose greater financial responsibility requirements, including insurance requirements, for OCS operations and facilities.
- Mandate public review and comment on oil spill response plans and ensure that oil spill response plans are available to the public after they are approved.
- Create substantive spill response requirements for offshore oil and gas operations that include:
  - proven response capacity under real-world conditions;
  - preparation of a response gap analysis;
  - realistic assessment of recovery and remediation; and
  - planning for a worst-case discharge (very large oil spill).
- Direct a comprehensive evaluation of oil spill risks and response capacity, including response gaps and the efficacy and other impacts of existing methods like in situ burning and dispersants.
- Clarify that BSEE has the authority to disapprove inadequate spill response plans and that the agency may evaluate alternative response mechanisms and the efficacy of proposed response requirements (this would address the problem made apparent by a Ninth Circuit holding that the existing requirements are a mere checklist and that the agency lacks discretion to examine the proposed plan or options to it).
- Establish Arctic-specific standards (akin to those in place for exploration) to ensure that companies address unique challenges of operating in the Arctic.
- Amend the National Contingency Plan to provide for more opportunities for state and local input.
- Require public review of preliminary assessments, injury assessments and restoration planning funded through the Natural Resource Damage Assessment process.
- Eliminate (or raise significantly) the cap on one-time, per-incident payouts under OSLTF.

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Cc:** Michael LeVine <mlevine@oceanconservancy.org>, Katherine Tsantiris <ktsantiris@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Ocean Conservancy comments on comprehensive review  
**Date:** Thu, 15 Apr 2021 23:22:13 +0000

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Andrew, Mike, and Kathy,

Thank you all so much for the submission. I look forward to reading the comments and will reach out if we have any questions!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

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**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Thursday, April 15, 2021 6:48 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Michael LeVine <mlevine@oceanconservancy.org>; Katherine Tsantiris <ktsantiris@oceanconservancy.org>  
**Subject:** [EXTERNAL] Ocean Conservancy comments on comprehensive review

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Hello Marissa,

I hope you're doing well. For your awareness, I'm passing along the comments Ocean Conservancy submitted for DOI's comprehensive review of federal oil and gas programs.

As you might imagine, we focused on offshore issues that might be of particular interest to you and others at BOEM.

As always, we're happy to answer questions and provide additional information. I've copied Mike and Kathy on this message. Please don't hesitate to reach out to any of us if we can be helpful.

Take good care,  
Andrew

Andrew Hartsig  
Director, Arctic Program  
Ocean Conservancy  
750 W. 2nd Avenue, Suite 206  
Anchorage, AK 99501  
O: 907.885.3057

[ahartsig@oceanconservancy.org](mailto:ahartsig@oceanconservancy.org)

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**From:** "Downes, Nancy" <[ndownes@oceana.org](mailto:ndownes@oceana.org)>

**To:** "Knodel, Marissa S" <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] Oceana Business Roundtable event - May 25 - 3pm Dress Rehearsal (optional)

**Date:** Mon, 24 May 2021 16:00:56 +0000

**Inline-Images:** image001.png

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Excellent, thank you.

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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Monday, May 24, 2021 11:49 AM

**To:** Downes, Nancy <[ndownes@oceana.org](mailto:ndownes@oceana.org)>

**Cc:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>; Davis, Ben <[bdavis@oceana.org](mailto:bdavis@oceana.org)>

**Subject:** Re: [EXTERNAL] Oceana Business Roundtable event - May 25 - 3pm Dress Rehearsal (optional)

Thank you, Nancy. I should be able to attend, I appreciate you setting it up.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Downes, Nancy <[ndownes@oceana.org](mailto:ndownes@oceana.org)>

**Sent:** Monday, May 24, 2021 11:38 AM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Cc:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>; Davis, Ben <[bdavis@oceana.org](mailto:bdavis@oceana.org)>

**Subject:** [EXTERNAL] Oceana Business Roundtable event - May 25 - 3pm Dress Rehearsal (optional)

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Ms. Knodel,

My name is Nancy Downes, I am the Field Rep. for Oceana in MA and I am overseeing the June 1<sup>st</sup> Business Coalition roundtable event. Tomorrow, Tuesday, May 25 at 3PM we are having a dress rehearsal to give panelists an opportunity to meet the other panelists, test out technology and do an abbreviated run-through of the event.

Your presence is welcome, but also optional. Pasted below, for your convenience, is your unique Zoom webinar panelist link.

Quick question - Do you plan on sharing slides during your presentation?

Please do not hesitate to reach out with any questions or concerns.

Thank you,  
Nancy Downes  
c. 310-995-7873

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Hi Marissa Knodel,

You are invited to a Zoom webinar.

Date Time: Jun 1, 2021 02:00 PM Eastern Time (US and Canada)

Topic National Business Coalition Roundtable Protecting Our Coast and Creating a Thriving Clean Coastal Economy

Join from a PC, Mac, iPad, iPhone or Android device

Please click this URL to (b) (5)

Note: This link should not be shared with others; it is unique to you.

Passcode (b) (5)

Description Join us along with Congressman Mike Levin, Senator Ed Markey, and ocean advocacy business leaders for a roundtable discussion via Zoom that will include an update from local and federal officials, including a representative from the Biden Administration, on plans regarding the future of offshore oil and gas drilling

Business owners from across the country will share personal stories and discuss the importance of protecting the national clean coast economy.

Speakers:

- \* Congressman Mike Levin
- \* Senator Ed Markey
- \* Biden Administration advisor to BOEM
- \* Mayor Everett "Rett" Newton
- \* BAPAC President, Tom Kies
- \* BAPPC - Founding member, Vipe Desai
- \* FGCBC Chair, Robin Miller
- \* OCEANA - Campaign Director - Offshore Drilling, Diane Hoskins
- \* OCEANA Field Rep in MA, Nancy Downes

\*Oceana is a nonpartisan organization The participation of any political candidate in this event should not be viewed as a statement endorsing or opposing any candidate. This event is Closed Press.

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Participant ID: (b) (5)

Passcode: (b) (5)

International numbers available (b) (5)

Nancy Downes | Field Representative, Massachusetts



c. (310) 995-7873

[ndownes@oceana.org](mailto:ndownes@oceana.org) | [usa.oceana.org](http://usa.oceana.org)

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**From:** "Brogan, Gilbert" <GBrogan@oceana.org>

**To:** "elizabeth.klein@boem.gov" <elizabeth.klein@boem.gov>

**Subject:** [EXTERNAL] Oceana Petition to Reinitiate ESA section 7 Consultations for Vineyard Wind

**Date:** Fri, 26 May 2023 18:07:32 +0000

**Attachments:** Oceana\_Petition\_to\_Reinitiate\_ESA\_Section\_7\_Consultations\_for\_Vineyard\_Wind\_5-26-2023.pdf

**Inline-Images:** image001.png

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Director Klein:

Please accept the attached petition from Oceana for the National Marine Fisheries Service to reinitiate consultation under Section 7 of the Endangered Species Act for the Vineyard Wind Offshore Energy Project based on new information published since the current Biological Opinion was published.

A new Biological Opinion must include a new jeopardy opinion on the effects of the Vineyard Wind project on the continued existence of North Atlantic right whales and Reasonable and Prudent Measure/Alternatives and Terms and Conditions that include additional avoidance and mitigation measures consistent with the advice provided in a letter from Dr. Sean Hayes at the NEFSC and more recently by the Fisheries Service in its comments on the nearby SouthCoast Wind Draft Environmental Impact Statement.

You may also be interested in a related opinion piece Oceana has published today: <https://thehill.com/opinion/energy-environment/4019486-whales-and-offshore-wind-can-coexist-if-we-give-them-space/>

Thank for your prompt attention to this matter.

I look forward to your response.

Gib Brogan

**Gib Brogan** | Campaign Director

4 Parkland Drive

Wayland, MA 01778 USA

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May 26, 2023

Michael Pentony  
Regional Administrator  
National Marine Fisheries Service  
Department of Commerce  
55 Great Republic Drive  
Gloucester, MA 01930

Elizabeth Klein  
Director  
Bureau of Ocean Energy Management  
Department of the Interior  
45600 Woodland Road  
Sterling, VA 20166

**RE: Petition to Reinitiate Consultation Under Section 7 of the Endangered Species Act for Vineyard Wind**

Dear Mr. Pentony and Ms. Klein:

Oceana petitions the National Marine Fisheries Service and the Bureau of Ocean Energy Management, under the First Amendment of the Constitution and the Administrative Procedure Act,<sup>1</sup> to reinitiate consultation under Section 7 of the Endangered Species Act for the Vineyard Wind Offshore Energy Project.

Since the Fisheries Service finalized the current biological opinion for Vineyard Wind in October 2021, two significant developments occurred that require the Fisheries Service and the Bureau to reinitiate consultation. First, new studies show that offshore wind turbine presence affects oceanography and ecosystems in a manner not previously considered. These studies raise concerns about the potential impacts on North Atlantic right whales and their forage base. Second, the Fisheries Service recommended new avoidance and mitigation measures, including asking for a conservation buffer zone for projects adjacent to Nantucket Shoals and expressed concern that vessel strike mitigation measures like those included for Vineyard Wind may not be sufficient for a nearby project, SouthCoast Wind.

Based on these developments, the Fisheries Service and the Bureau must reinitiate consultation and prepare a new biological opinion.

In the updated biological opinion, the Fisheries Service must include a new jeopardy opinion on the effects of the Vineyard Wind project on the continued existence of North Atlantic right whales and Reasonable and Prudent Measure/Alternatives and Terms and Conditions that include additional avoidance and mitigation measures consistent with the advice provided in a

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<sup>1</sup> 5 U.S.C. § 553(e).

letter from Dr. Sean Hayes<sup>2</sup> and by the Fisheries Service in its comments on the SouthCoast Wind Draft Environmental Impact Statement.<sup>3</sup>

This process should proceed immediately to avoid any major delays for Vineyard Wind.

While the Fisheries Service reinitiates and completes consultation, the agencies must require interim measures to prevent any further irreversible or irretrievable commitment of resources, including measures necessary to sufficiently guarantee right whales will not be struck by construction vessels and instituting a moratorium on construction in the conservation buffer zone until consultation is complete.

## BACKGROUND

### *Oceana's Campaigns*

Oceana is the largest international conservation organization solely focused on protecting the world's oceans, with over 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the East Coast. For over twenty years, Oceana has campaigned to win strategic, directed campaigns that achieve measurable outcomes to help make our oceans more biodiverse and abundant.

Addressing climate change is important for oceans, wildlife, and our future. By shifting from fossil fuel energy to clean, renewable energy sources, the United States can help address this crisis. Oceana was pleased to see the Biden Administration's goal to deploy 30 GW of offshore wind power by 2030 while protecting biodiversity and cultural resources, including imperiled marine life such as the critically endangered North Atlantic right whale.

Oceana participates in the management of U.S. fisheries, with a particular interest in effective bycatch minimization and reduction, if not elimination, of fishing gear entanglement-related death, injury, and harm to protected species, including the North Atlantic right whale. Oceana also seeks the reduction, if not elimination, of vessel strike-related death, injury, and harm to right whales. For these reasons, in 2019, Oceana launched a binational campaign in the United States and Canada to urge the respective governments to effectively enforce environmental laws to protect this critically endangered species, and Oceana currently campaigns to protect these whales from their two biggest threats—entanglement in fishing gear and vessel strikes.

For over 15 years, Oceana has also campaigned to oppose expanded offshore oil and gas exploration and development. Offshore drilling can cause dangerous oil spills and perpetuates energy development based on fossil fuels. The United States must shift from fossil fuel-based energy sources to clean energy. Offshore wind can help bridge the transition to our clean energy future.

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<sup>2</sup> Letter from Sean A. Hayes, PhD, Chief of Protected Species, NOAA Northeast Fisheries Science Center, to Brian Hooker, Lead Biologist, Bureau of Ocean Energy Management (May 13, 2022) [hereinafter "Letter from Dr. Hayes"].

<sup>3</sup> Letter from Michael Pentony, Regional Administrator, Greater Atlantic Regional Fisheries Office at the National Marine Fisheries Service, to Karen J. Baker, Chief, Renewable Energy Programs at the Bureau of Ocean Energy Management (April 18, 2023) [hereinafter "Letter from Michael Pentony"].

Oceana supports responsibly sited, built, and operated offshore wind. Proposed offshore wind projects need to consider, avoid, and mitigate effects to protected species, particularly the critically endangered North Atlantic right whale, to ensure that wind development will not come at the expense of the species. Right whales spend most of the year in the waters of New England and Eastern Canada with mothers migrating south to calve in the U.S. Southeast region. Wind development in persistent aggregation habitats and calving grounds poses the greatest concern. Areas where right whales spend less time are likely more appropriate because of the reduced frequency, intensity, and duration of interactions with potential offshore wind development.

### *Status of North Atlantic Right Whales*

The North Atlantic right whale is one of the most critically endangered large marine mammals in the world. Since 2010, the right whale population has declined at an alarming rate, and the most recent population estimate is that approximately 340 whales remain,<sup>4</sup> with only around 80 reproductively active females remaining.<sup>5</sup> Since 2017, right whales have been suffering an Unusual Mortality Event.<sup>6</sup> As of this petition, 36 right whales were killed, 33 were seriously injured, and 29 were otherwise injured during the Unusual Mortality Event,<sup>7</sup> but the real number impacted by human interactions is likely much larger. Scientists estimate that only about one third of right whale mortalities are detected.<sup>8</sup> To have a chance at survival and recovery, *less than one* right whale can be lost every year due to human-caused threats.<sup>9</sup>

Right whale migration routes and foraging areas overlap with some offshore wind leasing areas along the east coast, making vessel strikes a particular concern. Vessel strikes cause severe blunt trauma and bleeding, and disproportionately affect right whale mothers, calves, and juveniles.<sup>10</sup> Calves and their mothers, particularly lactating mothers, spend most of their time at surface depths in close striking range of speeding vessels.<sup>11</sup>

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<sup>4</sup> Pettis et al., North Atlantic Right Whale Consortium 2022 Annual Report Card (2023), [www.narwc.org](http://www.narwc.org); Peter Corkeron, et al., *The recovery of North Atlantic right whales, Eubalaena glacialis, has been constrained by human-caused mortality*, R. SOC. OPEN SCI. 5:180892 (Nov. 7, 2018), <https://doi.org/10.1098/rsos.180892>.

<sup>5</sup> Reed et al., *Multi-event modeling of true reproductive states of individual female right whales provides new insights into their decline*, FRONT. MAR. SCI. 9:994481, <https://doi.org/10.3389/fmars.2022.994481> (Oct. 6, 2022).

<sup>6</sup> NOAA Fisheries, *2017-2023 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2023-north-atlantic-right-whale-unusual-mortality-event> (last visited May 1, 2023).

<sup>7</sup> *Id.*

<sup>8</sup> Pace et al., *Cryptic mortality of North Atlantic right whales*, Conservation Science and Practice, doi: 10.1111/csp2.346 (Nov. 19, 2020).

<sup>9</sup> The Potential Biological Removal (PBR) level for NARWs is 0.7 per year. See NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., Draft North Atlantic Right Whale (*Eubalaena glacialis*): Western Atlantic Stock, at 17 (2022), <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports>.

<sup>10</sup> Endangered Fish and Wildlife; Final Rule To Implement Speed Restrictions to Reduce the Threat of Ship Collisions With North Atlantic Right Whales, 73 Fed. Reg. 60,173, 60,174 (October 10, 2008).

<sup>11</sup> Dombroski et al., *Dive behavior of North Atlantic right whales on the calving ground in the Southeast USA: implications for conservation*, ENDANG. SPECIES RES. 46:35-48 at 43 (2021); Hain et al., *Swim speed, behavior, and*

Right whales are also impacted by climate change, which is causing changes in the abundance and distribution of zooplankton species, including the calanoid copepod.<sup>12</sup> Even a moderate change in right whale prey can negatively impact right whale fitness.<sup>13</sup> Since at least 2011, right whales have been venturing into new areas in search of food, increasing entanglement and vessel strike risks in areas without protections.<sup>14</sup>

The waters of Southern New England have become core year-round habitat for right whales, establishing a consistent seasonal abundance in the waters south of Cape Cod in the last decade.<sup>15</sup> The seasonal abundance has continued, in large part due to climate change, as it has “led to abundance and distribution changes in the right whale’s primary prey species, [the lipid-rich zooplankton] *C. finmarchicus*.”<sup>16</sup>

### **THE FISHERIES SERVICE AND THE BUREAU MUST REINITIATE CONSULTATION FOR VINEYARD WIND**

The Bureau and the Fisheries Service must reinitiate consultation to account for significant new developments. The Fisheries Service must revise the biological opinion to evaluate the new science on oceanographic and ecosystem impacts and reevaluate its jeopardy conclusion for North Atlantic right whales or their habitat. The Fisheries Service must also reevaluate the Reasonable and Prudent Alternatives, Reasonable and Prudent Measures, and Terms and Conditions in light of its recommendations to the Bureau.

The Bureau first requested Endangered Species Act consultation in December 2018 after finding in its Biological Assessment that the Vineyard Wind project may affect listed species.<sup>17</sup> After completion of the initial consultation in September 2020, the Bureau requested reinitiation on

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*movement of North Atlantic right whales (Eubalaena glacialis) in coastal waters of northeastern Florida, USA*, PLOS ONE 8:e54340 (2013); Cusano et al., *Implementing conservation measures for the North Atlantic right whale: considering the behavioral ontogeny of mother-calf pairs*, ANIM. CONSERV. 22:228-237 (2019). See also 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,174 (Oct. 10, 2008).

<sup>12</sup> Meyer-Gutbrod et al., *Climate-associated changes in prey availability drive reproductive dynamics of the North Atlantic right whale population*, Marine Ecology Progress Series 535: 243-258 (Sept. 15, 2015), <https://doi.org/10.3354/meps11372>; Erin L. Meyer-Gutbrod, et al., *Uncertain recovery of the North Atlantic right whale in a changing ocean*, Global Change Biology 24: 455-464 (Sept. 25, 2017), <https://doi.org/10.1111/gcb.13929>.

<sup>13</sup> Van der Hoop et al, *Foraging rates of ram-filtering North Atlantic right whales*, Functional Ecology 33(3) (May 2019), <https://www.researchgate.net/publication/333027464> [Foraging rates of ram filtering North Atlantic right whale](https://www.researchgate.net/publication/333027464)

<sup>14</sup> Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, Oceanography 31(2): 19-23 (June 2018), <https://doi.org/10.5670/oceanog.2018.209>; Record et al., *Rapid Climate-Driven Circulation of Changes Threaten Conservation of Endangered North Atlantic Right Whales*, Oceanography (June 2019), [https://tos.org/oceanography/assets/docs/32-2\\_record.pdf](https://tos.org/oceanography/assets/docs/32-2_record.pdf).

<sup>15</sup> O’Brien et al., *Repatriation of a historical North Atlantic right whale habitat during an era of rapid climate change*, 12 SCI. REP. 12407, at 2-3 (July 20, 2022) [hereinafter O’Brien et al.]; Roberts et al., *Final Project Report: Marine Species Density Data Gap Assessments and Update for AFTT Study Area* (Nov. 22, 2021).

<sup>16</sup> *Id.*

<sup>17</sup> BUREAU OF OCEAN ENERGY MANAGEMENT, VINEYARD WIND OFFSHORE WIND ENERGY PROJECT BIOLOGICAL ASSESSMENT (Dec. 2018).

May 7, 2021, to consider the effects of surveys added to the project after the consultation.<sup>18</sup> The Fisheries Service finalized the new BiOp on October 18, 2021.<sup>19</sup>

The Fisheries Service's regulations require agencies to reinitiate consultation if any one of four factors are met.<sup>20</sup> The factor relevant to this request is the second, "[i]f new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered."<sup>21</sup>

Two developments since the most recent BiOp rise to the level of new information for which the agencies must reinitiate consultation. First, new studies raised concerns about the potential impacts of offshore wind on oceanography and ecosystems. The Fisheries Service and its scientific experts have highlighted these new studies in letters to the Bureau. The studies present significant new information showing that Vineyard Wind may affect right whales to an extent not previously considered, and the potential oceanographic and ecosystem effects must be fully considered in a reinitiated consultation by the agency.

Second, the Fisheries Service recommended the inclusion of a buffer zone around core right whale habitat and raised concerns about the effectiveness of mitigation measures for vessel strikes for a nearby project, SouthCoast Wind. The conservation buffer zone recommendation and the Fisheries Service's views on the effectiveness of SouthCoast's mitigation measures present new information not considered in the current biological opinion. The agencies must harmonize the Fisheries Service's views on offshore wind turbines in the area and the conclusions reached in the current biological opinion by reinitiating consultation.

#### **A. New Studies on the Effects of Offshore Wind Development Must Be Analyzed in a Revised Biological Opinion**

Studies published after the publication of the current biological opinion raise significant concerns about the potential oceanographic and ecosystem impacts from the presence of offshore wind turbines. The Fisheries Service highlighted these concerns to the Bureau for effects to North Atlantic right whales from projects near Nantucket Shoals. The Fisheries Service must include these studies in a revised biological opinion, as they present new information about the impacts of Vineyard Wind on North Atlantic right whales that were not considered in the current biological opinion.

According to a February 2022 study by Nils Christiansen et al. modeling the effects of offshore wind turbines in the North Sea, offshore wind farms create changes to stratification strength and currents, and the effects are stronger in clustered wind farms like in the German Bight.<sup>22</sup> The authors found that large-scale dipoles with spatial dimensions of up to hundreds of kilometers

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<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> 50 C.F.R. § 402.16(a).

<sup>21</sup> 50 C.F.R. § 402.16(a)(2).

<sup>22</sup> Christiansen et al., *Emergence of Large-Scale Hydrodynamic Structures Due to Atmospheric Offshore Wind Farm Wakes*, *Front. Mar. Sci.* (Feb. 3, 2022), <https://www.frontiersin.org/articles/10.3389/fmars.2022.818501/full>.

were formed particularly in the German Bight because wake effects were amplified.<sup>23</sup> This is a large increase over the studies used in the October 2021 BiOp, which found that wake effects would be limited to within 300 meters of turbines.

The same authors released another study in October 2022 finding that tides play an important role in the hydrodynamic changes from wind farm wakes, so “it is not only atmospheric conditions that determine the impact of atmospheric offshore wind farm wakes on the ocean, but also the regional hydrodynamic conditions in the respective environment.”<sup>24</sup> The authors found that “periodic tidal currents can mitigate the impact of wind speed reduction over time.”<sup>25</sup>

As to the ecosystem effects, the Fisheries Service noted in the current biological opinion that planktonic prey could be dispersed around turbines but that there could also be aggregations of prey in wakes from eddies or if prey are caught in convergent currents.<sup>26</sup> The Fisheries Service nonetheless found that these effects would be “limited spatially and will be patchy throughout the project footprint.”<sup>27</sup> The Fisheries Service noted, however, that as the scale of offshore wind development increases and more area is occupied by turbines, the impacts may also increase and affect environmental baselines for future projects.<sup>28</sup>

In contrast to the biological opinion, a study by Dorrell et al. from 2022 found that offshore wind activities would increase mixing in seasonally stratified areas, with the mixing leading to differences in the functioning of shelf sea ecosystems.<sup>29</sup> The study noted that ecosystem changes would need to be assessed over several years to fully understand the effects. The study noted that it is unclear whether the changes would result in positive or negative net benefits for regional ecology.<sup>30</sup> The study also expressed caution, noting that there will be regional differences based on oceanography and the build out of offshore wind.<sup>31</sup>

A study by Ute Daewel and others in the North Sea found that wind wake can lead to large changes in annual primary production of up to 10 percent near wind farm clusters and in the broader regions around wind farms.<sup>32</sup>

In its letters to the Bureau, the Fisheries Service expressed concern about the potential impacts to North Atlantic right whales based on the conclusions of these studies. The agencies must

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<sup>23</sup> *Id.*

<sup>24</sup> Christiansen et al., *Tidal mitigation of offshore wind wake effects in coastal seas*, *Front. Mar. Sci.* (Oct. 3, 2022), <https://www.frontiersin.org/articles/10.3389/fmars.2022.1006647/full>.

<sup>25</sup> *Id.*

<sup>26</sup> *BiOp* at 299.

<sup>27</sup> *Id.* at 300.

<sup>28</sup> *Id.* at 301.

<sup>29</sup> Dorrell et al., *Anthropogenic Mixing in Seasonally Stratified Shelf Seas by Offshore Wind Farm Infrastructure*, *Front. Mar. Sci.* (March 22, 2022), <https://www.frontiersin.org/articles/10.3389/fmars.2022.830927/full>.

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* (“The density of offshore wind farms and the regional distribution of mixing and wake-wake interactions between wind farms will be of critical importance in determining shelf sea response to offshore wind development.”).

<sup>32</sup> Daewel et al., *Offshore wind farms are projected to impact primary production and bottom water deoxygenation in the North Sea*, *Communications: Earth & Environment* (2022), <https://doi.org/10.1038/s43247-022-00625-0>.

reinitiate consultation to ensure that this new information is considered in a revised biological opinion.

**B. The Fisheries Service Asked the Bureau to Consider and Include a Conservation Buffer Zone and Additional Mitigation Measures to Protect Right Whales from Vessel Strikes**

The Fisheries Service’s new position on the adequacy of avoidance and mitigation measures for offshore wind projects abutting Nantucket Shoals is also significant new information. The Fisheries Service’s letters raise serious concerns about the adequacy of the avoidance and mitigation measures included for Vineyard Wind and therefore require the agencies to reinitiate consultation.

In May of 2022, Dr. Sean Hayes, the Chief of the Protected Species Division of the Northeast Fisheries Science Center, wrote a letter to the Bureau expressing concern with the potential effects of offshore wind development on right whales relying in part on the new science discussed above.<sup>33</sup> The letter noted that “[d]isturbance to right whale foraging *could have population-level effects on an already endangered and stressed species*.”<sup>34</sup> The letter went on to say that “[a]dditional noise, vessel traffic, and habitat modifications due to offshore wind development will likely cause added stress that could result in additional population consequences to a species that is already experiencing rapid decline (30% in the last 10 years).”<sup>35</sup>

Summarizing the new science, much of which was published since the 2021 BiOp, Hayes noted that the “presence of structures such as wind turbines are likely to result in both local and broader oceanographic effects, and may disrupt the dense aggregations and distribution of zooplankton prey through altering the strength of tidal currents and associated fronts, changes in stratification, primary production, the degree of mixing, and stratification in the water column.”<sup>36</sup> The letter noted that the “scale of impacts is difficult to predict and may vary from hundreds of meters for local individual turbine impacts to large-scale dipoles of surface elevation changes stretching hundreds of kilometers.”<sup>37</sup>

Relying on the Dorrell study, the Hayes letter found that oceanographic changes from offshore wind production “may disrupt the dense aggregations and distribution of zooplankton prey through altering the strength of tidal currents and associated fronts, changes in stratification, primary production, the degree of mixing, and stratification in the water column.”<sup>38</sup> In order to reduce “the potential for negative consequences,” the letter proposed a 20 kilometer conservation buffer zone between wind development and the Nantucket Shoals 30 meter isobath.<sup>39</sup>

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<sup>33</sup> Letter from Dr. Hayes.

<sup>34</sup> *Id.*(emphasis added)

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

On April 18, 2023, the Fisheries Service reiterated these and other concerns in comments on the SouthCoast Wind Draft Environmental Impact Statement. The Fisheries Service stated:

[w]ithout the implementation of robust and effective mitigation measures, it is our view that significant impacts on North Atlantic right whales may occur from project construction and operation due to direct impacts on North Atlantic right whales during construction, long-term impacts to foraging as a result of project operations, and potential mortality or serious injury from vessel strikes over the life of the project.<sup>40</sup>

The Fisheries Service discussed the importance of Nantucket Shoals as primary foraging habitat for right whales and the Bureau's lack of analysis of a 20 kilometer conservation buffer.<sup>41</sup> After raising these concerns, the Fisheries Service stated that it is "concerned about [their] ability to reach a 'no jeopardy' conclusion in the pending [Endangered Species Act] consultation for this project without incorporating mitigation measures designed to avoid and minimize impacts of construction and operation on North Atlantic right whales."<sup>42</sup>

These concerns are translatable to Vineyard Wind. The Vineyard Wind project abuts Nantucket Shoals as does SouthCoast and uses similar turbines. And the mitigation measures for Vineyard Wind to avoid vessel strikes with right whales are similar to those proposed by SouthCoast. For example, both projects require that all vessels keep a 500 meter distance from right whales, that all vessels comply with mandatory or voluntary speed restrictions, and that vessels greater than 65 feet, or 19.8 meters operate at 10 knots or less from November 1 through April 30.<sup>43</sup>

If the conservation buffer zone is needed as Dr. Hayes pointed out and the avoidance and mitigation measures for SouthCoast are insufficient as pointed out by the Fisheries Service, then the agency must reassess the avoidance and mitigation measures for Vineyard Wind. The agency's position on other projects is, therefore, significant new information requiring the Bureau and the Fisheries Service to reinitiate consultation.

### **ADDITIONAL AVOIDANCE AND MITIGATION MEASURES MUST BE ADOPTED IN A REVISED BIOLOGICAL OPINION**

As discussed above, new information shows that offshore wind projects near Nantucket Shoals may have effects not anticipated in the current Vineyard Wind Biological Opinion. The agencies should proceed under a precautionary approach and determine what additional avoidance measures, like the buffer zone recommended in Dr. Hayes' letter and in the NMFS comment letter on SouthCoast, would achieve the goal of reducing risk to right whales. The agencies

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<sup>40</sup> Letter from Michael Pentony.

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

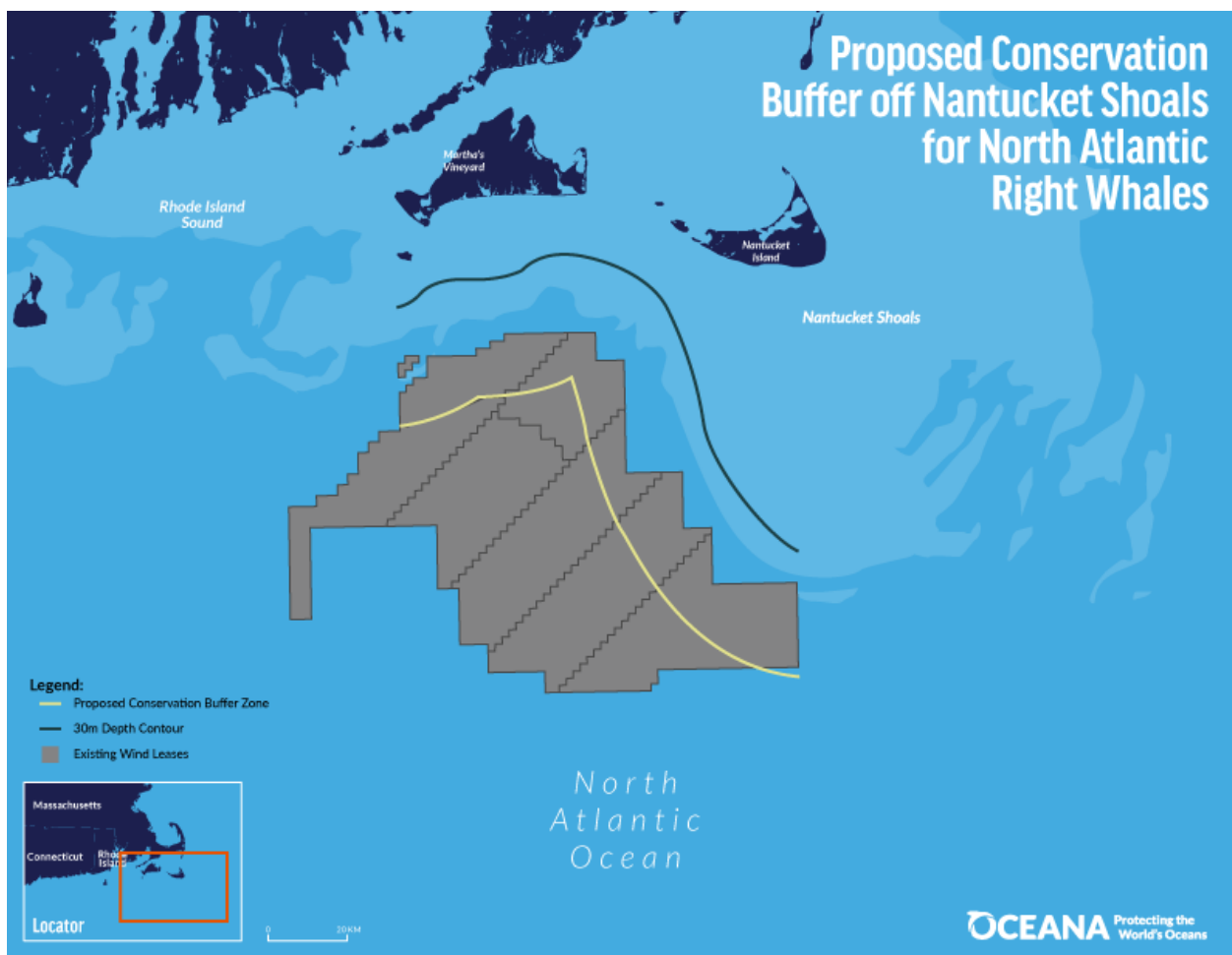
<sup>43</sup> BUREAU OF OCEAN ENERGY MANAGEMENT, MAYFLOWER WIND PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT: APP'X G, G-15 to G-16 (Feb. 2023) [https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Mayflower\\_DEIS\\_AppG\\_Mitigation\\_Monitoring\\_508.pdf](https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Mayflower_DEIS_AppG_Mitigation_Monitoring_508.pdf); NATIONAL MARINE FISHERIES SERVICE, INCIDENTAL HARASSMENT AUTHORIZATION: VINEYARD WIND 1 (July 21, 2021), [https://media.fisheries.noaa.gov/2021-07/VW1\\_2021IHA\\_Issued\\_OPR1.pdf?null=](https://media.fisheries.noaa.gov/2021-07/VW1_2021IHA_Issued_OPR1.pdf?null=).



should also include additional vessel strike mitigation measures as highlighted by the Fisheries Service’s comments on SouthCoast.

As the Supreme Court said, Congress adopted “a policy which it described as ‘institutionalized caution’” when passing the Endangered Species Act.<sup>44</sup> The continued decline of the right whale shows that this policy is just as relevant today as it was 50 years ago when the Act became law. Even if the effects on right whales from offshore wind turbine presence near Nantucket Shoals are not certain, uncertainty should weigh in favor of a critically endangered species.

Oceana calls on the agencies to include additional avoidance and mitigation measures, like a buffer zone in line with the following map, in the Reasonable and Prudent Measures or Alternatives and the Terms and Conditions of the new biological opinion for Vineyard Wind.



<sup>44</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 194 (1978).

The Fisheries Service and the Bureau must also include additional vessel strike mitigation in light of the Fisheries Service’s comments on the SouthCoast Wind DEIS that the Bureau “should require additional mitigation measures that would minimize risk of vessel strike.”<sup>45</sup> As noted above, the mitigation measures proposed by SouthCoast are very similar to those required of Vineyard Wind. If the mitigation measures are not sufficient for SouthCoast, the measures are likely not enough for Vineyard Wind either. This must be reflected in an updated biological opinion.

**THE AGENCIES MUST IMPLEMENT INTERIM MEASURES TO PREVENT ANY FURTHER IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES THAT WILL PREVENT NECESSARY AVOIDANCE OR MITIGATION MEASURES**

Once the Bureau and the Fisheries Service reinitiate consultation, they must also implement at least two interim measures to prevent potential harm to North Atlantic right whales: (1) prevent construction in the conservation buffer zone, and (2) require additional vessel strike mitigation measures.

Under the Endangered Species Act, federal agencies and permit applicants cannot “make any irreversible or irretrievable commitment of resources . . . which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures.”<sup>46</sup> The agencies should consider both economic and natural resources when looking at the irreversible or irretrievable commitment of resources.

For the consideration of economic resources, if the agency allows construction to proceed in the conservation buffer zone during reinitiation, Vineyard Wind will have put significant resources towards that course of action, and it will take significant economic resources to require the removal of those turbines within the conservation buffer zone. This could foreclose the implementation of the conservation buffer zone, which is the exact action the Fisheries Service needs to assess in an updated biological opinion.

For the consideration of natural resources, the death of a single right whale is irreversible, and the Fisheries Service has made clear that less than one right whale can die from human related causes every year in order for the species to have a chance at recovery. If the agencies allow construction to proceed without interim vessel strike mitigation measures, the agency will be allowing potential irreversible effects to right whales. And if the agency allows for construction in the conservation buffer zone during consultation, it may lead to negative ecosystem effects to right whales that may not reverse quickly enough to prevent effects on the species.

**CONCLUSION**

North Atlantic right whales are critically endangered, and new studies raise serious concerns about the effects of projects adjacent to Nantucket Shoals on the species. The Fisheries Service

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<sup>45</sup> Letter from Michael Pentony.

<sup>46</sup> 16 U.S.C. § 1536(d).

and its scientific experts have made clear expert recommendations for other projects adjacent to Nantucket Shoals that are equally applicable to Vineyard Wind. For these reasons, Oceana files this petition to request that the Fisheries Service and the Bureau reinitiate section 7 consultation for Vineyard Wind. In the revised biological opinion, the Fisheries Service should include additional avoidance and mitigation measures, such as a buffer zone and vessel strike mitigation, in the RPMs/RPAs and terms and Conditions of the Biological Opinion. The agencies should move forward with this process quickly to avoid major delays to the project, and until consultation is complete, the agencies should require interim measures to prevent potential harm to right whales.

Oceana believes the development of renewable energy at scale is critical to the fight against climate change and supports the Biden Administration's efforts to responsibly develop the U.S. Atlantic offshore wind resource. Oceana firmly believes that offshore wind and North Atlantic right whales can coexist in much of the U.S. Atlantic if – and only if – mitigation is applied early, often, and correctly. The agencies involved must take a precautionary approach informed by the latest information and science to protect this species in steep decline.

\* \* \*

Thank you for your time and consideration of this petition for reinitiation of consultation for Vineyard Wind. If you have any questions about this petition, you may contact me, Gib Brogan, at [gbrogan@oceana.org](mailto:gbrogan@oceana.org).

We will continue to be engaged in this process moving forward.

Sincerely,



Gib Brogan  
Campaign Director

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**Cc:** "Webber, Whitney" <webber@oceana.org>, "rmorgan@cec.org" <rmorgan@cec.org>, "Paolo Solano (psolano@cec.org)" <psolano@cec.org>, Caitlin McCoy <cmccoy@cec.org>, "regan.michael@epa.gov" <regan.michael@epa.gov>, "nishida.jane@epa.gov" <nishida.jane@epa.gov>, "ec.ministre-minister.ec@canada.ca" <ec.ministre-minister.ec@canada.ca>, "catherine.stewart2@canada.ca" <catherine.stewart2@canada.ca>, "c.secretaria@semarnat.gob.mx" <c.secretaria@semarnat.gob.mx>, "ivan.rico@semarnat.gob.mx" <ivan.rico@semarnat.gob.mx>, "docexecsec@doc.gov" <docexecsec@doc.gov>, "publicaffairs@doc.gov" <publicaffairs@doc.gov>, "rick.spinrad@noaa.gov" <rick.spinrad@noaa.gov>, "janet.coit@noaa.gov" <janet.coit@noaa.gov>, "james.landon@noaa.gov" <james.landon@noaa.gov>, "walker.smith@noaa.gov" <walker.smith@noaa.gov>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "feedback@ios.doi.gov" <feedback@ios.doi.gov>, "Interior\_Press@ios.doi.gov" <Interior\_Press@ios.doi.gov>, "amanda.lefton@boem.gov" <amanda.lefton@boem.gov>, "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "(b) (6)" <(b) (6)>, "Amanda Mayhew" <(b) (6)>

**Subject:** [EXTERNAL] Oceana USMCA Art. 24.27 Revised Submission on Enforcement Matters - North Atlantic Right Whales

**Date:** Wed, 5 Jan 2022 04:26:07 +0000

**Attachments:** Oceana\_-\_Revised\_SEM\_(01-04-2022).pdf

**Inline-Images:** image001.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear CEC Secretariat:

On behalf of Oceana and Whitney Webber, Oceana's Campaign Director for Responsible Fishing, please find Oceana's USMCA Art. 24.27 Revised Submission on Enforcement Matters (SEM) in the attachment.

As detailed in Oceana's Revised SEM, the United States is failing to effectively enforce its environmental laws to adequately protect the critically endangered North Atlantic right whale. Oceana requests that the CEC Secretariat develop a factual record, as contemplated by Article 24.28, on an expedited basis. A factual record will clarify the many ways that the U.S. government has failed to effectively enforce its environmental laws specifically designed to protect these endangered marine mammals, including from the primary human threats of vessel strikes and fishing gear entanglement. A factual record will also allow all Parties, especially the United States and Canada, and the CEC to develop a successful North Atlantic right whale conservation strategy that encompasses the full range of the species along the Atlantic coast. Considering the dire status of North Atlantic

right whales and the legal requirement based on best available science that *less than one* North Atlantic right whale can be killed or seriously injured per year if the species is to recover, we urge the U S Government to *immediately and effectively* comply with, implement, and enforce all applicable environmental laws, including the requirement to implement interim emergency management measures

In addition to the attached Revised SEM, please find all accompanying documents (exhibits, courtesy copies of hyperlinked documents, and courtesy copies of statutory and regulatory provisions) at the following link

- [https://oceana.org-my.sharepoint.com/f/g/personal/acate\\_oceana\\_org/Ev1xvS5xEd1GgFrtapZHTwMBwb5xbEl6H9eTEmHLB4pYCA?e\\_iqyhA3](https://oceana.org-my.sharepoint.com/f/g/personal/acate_oceana_org/Ev1xvS5xEd1GgFrtapZHTwMBwb5xbEl6H9eTEmHLB4pYCA?e_iqyhA3)

Should you have any questions or any difficulty accessing any of these materials, please do not hesitate to email Whitney Webber at [wwebber@oceana.org](mailto:wwebber@oceana.org), cc'ing me [acate@oceana.org](mailto:acate@oceana.org)

Thank you for your time and careful consideration of Oceana's Revised SEM

Sincerely,  
Alicia Cate

PS Please direct any/all media inquiries to Megan Jordan at [mjordan@oceana.org](mailto:mjordan@oceana.org), cc'ing Dustin Cranor at [dcranor@oceana.org](mailto:dcranor@oceana.org) Thank you!

**Alicia Cate | Senior Counsel**



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January 4, 2022

*Submitted via email*

Commission on Environmental Cooperation (CEC) Secretariat  
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Montreal, Quebec  
Canada H38 5M2  
Email: [sem@cec.org](mailto:sem@cec.org)

**Re: SEM-21-003 (*North Atlantic right whale*)—Oceana's Supplemental Submission**

Dear CEC Secretariat:

This supplemental submission clarifies certain parts of Oceana's USMCA Article 24.27 Submission on Enforcement Matters dated October 4, 2021, further demonstrating that the United States is failing to effectively enforce its environmental laws to adequately protect the critically endangered North Atlantic right whale (NARW).

In accordance with the Secretariat's Determination dated November 4, 2021, this supplemental submission identifies specific provisions of U.S. environmental law that the United States has failed to effectively enforce, focusing on those related to collisions between NARWs and ships and the entanglement of NARWs in commercial fishing gear. Further, Annex I of this supplemental submission explains that remedies available under U.S. law have been pursued, and that related pending proceedings either address distinct issues or will not adequately remedy the matters raised herein.

Oceana respectfully requests your reconsideration of the eligibility of Oceana's submission, as revised. If you have any questions, please do not hesitate to reach out to me at the email address below.

Sincerely,

A handwritten signature in black ink, appearing to read "Whitney Webber".

---

Whitney Webber  
Campaign Director, Responsible Fishing  
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January 4, 2022

Page 2

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Reference number and submission name (to be assigned by the Secretariat):

### Submission Form Part I-Identification

#### About this form

This form guides you on how to prepare a Submission on Enforcement Matters (SEM) under Article 24.27 of the new [USMCA/CUSMA](#) Trade Agreement, effective July 1, 2020. The SEM procedures are similar to the procedures contained in the North American Agreement for Environmental Cooperation (NAAEC), but there are some differences of which Submitters should be aware. The NAAEC procedures in Articles 14 and 15 no longer apply to new submissions filed on or after July 1, 2020.

**Important:** If your submission is incomplete, you will receive a determination according to Article 24.27(3) of the Agreement detailing the missing information, in which case, you will need to resubmit your submission. You may use this form again as well.

To prepare your submission, **read carefully the [instructions](#)** on how to fill-out this form. Once completed, send it by email to [sem@cec.org](mailto:sem@cec.org) along with any attachments or links to download them.

You may also send your submission and attachments without using this form via email or to the following postal address:

CEC Secretariat, Legal Affairs and SEM  
700, rue de la Gauchetière, Bureau 1620  
Montreal, Quebec Canada H2R 5M2

You may disclose my personal information. If you are an individual, your email and postal addresses will not be made public.  
 I want my personal information to remain confidential.

Identification of the [Person of a Party](#) filing the submission.

|                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>A. Submitter(s) (individual).</b> Fill this section if you are an individual. If you are an enterprise, use section B.</p> <p>1. Last name:</p> <p>2. First name:</p> <p>3. Citizenship (or country of permanent residency):</p> <p>4. Address:</p> <p>5. Telephone:</p> <p>6. E-mail:</p> | <p><b>B. Submitter(s) (enterprise).</b> Fill this section if you are an enterprise of a Party, including a NGO.</p> <p>7. Name of the entity:<br/><b>Oceana, Inc. (Oceana)</b></p> <p>8. Represented by:<br/><b>Whitney Webber</b><br/><b>Campaign Director, Responsible Fishing</b></p> <p>9. Place of incorporation, date and/or registration number:<br/><b>Oceana, Inc. is a nonprofit organization incorporated under the laws of the District of Columbia on March 1, 2001.</b></p> <p>10. Address:<br/><b>1025 Connecticut Ave., NW, Suite 200</b><br/><b>Washington, DC 20036</b></p> <p>11. Telephone:<br/><b>202-833-3900</b></p> <p>12. E-mail:<br/><a href="mailto:wwebber@oceana.org">wwebber@oceana.org</a></p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

If there are more submitters, [click here](#) to download another Part I form.

## Part II-Representative(s)

If the Submitter(s) has no representative or no leading organization, please go to Part III.

| <b>C. Leading organization. Fill below if the Submission is led by one or more organizations.</b>                                                                     | <b>D. Representative of the Submitter(s). Fill below if you have a legal representative</b>                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>13. Name:</p> <p>14. Represented by:</p> <p>15. Place of Incorporation, date and or registration:</p> <p>16. Address:</p> <p>17. Telephone:</p> <p>18. E-mail:</p> | <p>19. Is the representative also one of the Submitters?<br/><input type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p>20. Last name:</p> <p>21. First name:</p> <p>22. Citizenship (or country of permanent residency):</p> <p>23. Address:</p> <p>24. Telephone:</p> <p>25. E-mail:</p> |

If there is more than one leading organization, [click here](#) to download Part II of this form.

## Part III-Your Submission

**E. Party of Concern.** Please identify the location of the issues and environmental laws raised in your submission. Your submission could address more than one party and its environmental laws.

26. To which Party(s) are you addressing your submission?

- Canada.
- Mexico.
- United States.

### F. Environmental law.

27. The Submitter must identify the applicable provision of the statute or regulation, as defined in [Article 24.1](#) of the Agreement. Prepare a numbered list of the statute(s) or regulation(s) and include the applicable provisions.

#### 1. Marine Mammal Protection Act

- a. 16 U.S.C. § 1371
  - i. 16 U.S.C. § 1371(a)
  - ii. 16 U.S.C. § 1371(a)(5)(E)(i)
- b. 16 U.S.C. § 1375
  - i. 16 U.S.C. § 1375(a)(1)
  - ii. 16 U.S.C. § 1375(b)(1)
- c. 16 U.S.C. § 1377(a)
- d. 16 U.S.C. § 1382(a)
- e. 16 U.S.C. § 1387
  - i. 16 U.S.C. § 1387(a)(1)
  - ii. 16 U.S.C. § 1387(b)(1)
  - iii. 16 U.S.C. § 1387(c)(3)(A)
  - iv. 16 U.S.C. § 1387(f)(2)
  - v. 16 U.S.C. § 1387(g)(1)(A)(i)

#### 2. Endangered Species Act

- a. 16 U.S.C. § 1533(b)(7)
- b. 16 U.S.C. § 1536(a)(2)
- c. 16 U.S.C. § 1538
  - i. 16 U.S.C. § 1538(a)(1)
  - ii. 16 U.S.C. § 1538(a)(1)(B)
- d. 16 U.S.C. § 1540
  - i. 16 U.S.C. § 1540(a)(1)
  - ii. 16 U.S.C. § 1540(b)
  - iii. 16 U.S.C. § 1540(e)(1)

#### 3. National Environmental Policy Act

- a. 42 U.S.C. § 4332(2)(C)

#### 4. National Environmental Policy Act Regulations (1978)

- a. 40 C.F.R. § 1501.4
  - i. 40 C.F.R. § 1501.4(b)
  - ii. 40 C.F.R. § 1501.4(c)
  - iii. 40 C.F.R. § 1501.4(e)
- b. 40 C.F.R. § 1501.7
- c. 40 C.F.R. § 1502.14
  - i. 40 C.F.R. § 1502.14(a)

- ii. 40 C.F.R. § 1502.14(b)
- d. 40 C.F.R. § 1502.16(b)
- e. 40 C.F.R. § 1502.24
- f. 40 C.F.R. § 1508.25(c)

**5. National Environmental Policy Act Regulations (2020)**

- a. 40 C.F.R. § 1501.2(a)
- b. 40 C.F.R. § 1501.5(a)
- c. 40 C.F.R. § 1501.6(a)
- d. 40 C.F.R. § 1501.9(a)
- e. 40 C.F.R. § 1502.3
- f. 40 C.F.R. § 1502.5

**6. Marine Mammal Protection Act Regulations**

- a. 50 C.F.R. § 224.105
- b. 50 C.F.R. § 229.3(a)
- c. 50 C.F.R. § 229.9(a)

**7. Endangered Species Act Regulations**

- a. 50 C.F.R. § 402.14
  - i. 50 C.F.R. § 402.14(a)
  - ii. 50 C.F.R. § 402.14(c)(1)
  - iii. 50 C.F.R. § 402.14(d)
- b. 50 C.F.R. § 424.20



**G. Statement of facts.**

28. Make sure that you make reference to the elements listed in this [checklist](#).

Please ensure that the information you enter in this section does **not exceed the 15-page limit**. Review your text accordingly. Use the space below to include a succinct account of facts. Please number each paragraph for ease of reference. You may use hyperlinks to reference supporting information.

1. Please see attached Statement of Facts.

#### H. List of accompanying documents.

29. Include full and legible copies of documents referred in your submission. Hyperlinks to download the documents are admissible too. Use the space below to list the documents in the order cited in your submission. Do not include statutes or regulations cited in your submission.

1. **Ex. 1**, Whale and Dolphin Conservation et al., *Petition for Rulemaking to Prevent Deaths and Injuries of Critically Endangered NARWs from Vessel Strikes* (Aug. 6, 2020)
2. **Ex. 2**, United States Coast Guard, Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay (2021)
3. **Ex. 3**, United States Coast Guard, Draft Port Access Route Study: Northern New York Bight (2021)
4. **Ex. 4**, Oceana, Comment on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight (Aug. 30, 2021)
5. **Ex. 5**, Oceana, Comments on Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery; 85 Fed. Reg. 86,878 (December 31, 2020); Dkt. No. 201221-0351; RIN 0649-BJ09 and the related Draft Environmental Impact Statement (March 1, 2021)
6. **Ex. 6**, Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019)
7. **Ex. 7**, Complaint, *Whale and Dolphin Conservation, et al. v. National Marine Fisheries Service, et al.*, No. 21-cv-112 (D.D.C.), ECF No. 1 (Jan. 13, 2021)
8. **Ex. 8**, Oceana, Comment Letter on Vessel Speed Rule Assessment (Mar. 26, 2021)
9. **Ex. 9**, Oceana, Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay (Nov. 10, 2020).
10. **Ex. 10**, Amended Complaint, *Center for Biological Diversity, et al. v. Gina Raimondo, et al.*, No. 18-cv-112 (D.D.C.), ECF No. 170 (Sept. 17, 2021)
11. **Ex. 11**, Complaint, *Center for Biological Diversity, et al. v. Gina Raimondo, et al.*, No. 18-cv-112 (D.D.C.), ECF No. 1 (Jan. 18, 2018)
12. **Ex. 12**, Complaint, *Maine Lobsterman's Association v. National Marine Fisheries Service, et. al*, No. 21-cv-2509 (D.D.C), ECF No. 1 (Sept. 21, 2021)
13. **Ex. 13**, Oceana, Comment Letter on Draft BiOp (Feb. 19, 2021)
14. **Ex. 14**, Oceana, Notice Letter to U.S. Government Regarding USMCA Article 24.27 Submission on Enforcement Matters Due to Failures to Effectively Comply with, Implement, or Enforce Environmental Laws (Aug. 18, 2021)
15. **Please also see hyperlinks in footnotes to the Statement of Facts and Annex I**

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**STATEMENT OF FACTS**  
**(Part III.G of Submission Form)**

**USMCA Article 24.27 Submission on Enforcement Matters**

**U.S. Government Failures to Effectively Enforce Environmental Laws  
to Protect Critically Endangered North Atlantic Right Whales**

**Supplemental Submission**

**January 4, 2022**

1. This revised USMCA Article 24.27 Submission on Enforcement Matters (Revised SEM) clarifies Oceana’s USMCA Article 24.27 Submission on Enforcement Matters dated October 4, 2021 (Initial SEM). This Revised SEM identifies specific provisions of U.S. environmental law that the United States has failed to effectively enforce with respect to the critically endangered North Atlantic right whale (NARW). Annex I demonstrates that remedies available under U.S. law have been pursued, and also explains that pending proceedings related to the enforcement matters discussed in this Revised SEM either address distinct issues or will not remedy the matters addressed herein.

2. This Revised SEM has two parts. Part I discusses the U.S. Government’s failure to effectively enforce its environmental laws with respect to collisions between NARWs and ships, typically called “vessel strikes.” Part II discusses the U.S. Government’s failure to effectively enforce its environmental laws with respect to the entanglement of NARWs in commercial fishing gear.

## **I. FAILURE TO ENFORCE ENVIRONMENTAL LAWS RELATED TO VESSEL STRIKES**

### **A. The U.S. Government Has Failed to Effectively Enforce the Vessel Speed Rule**

3. In 2008, the U.S. Fisheries Service promulgated the Vessel Speed Rule, codified at 50 C.F.R. § 224.105.<sup>1</sup> The Vessel Speed Rule imposes a 10-knot speed limit on vessels 65 feet or greater in length in certain areas and at certain times where NARWs were once known to congregate.<sup>2</sup> Because the Vessel Speed Rule is barely enforced, however, vessel strikes remain the single leading cause of NARW deaths, accounting for over half of the known or suspected causes of NARW mortalities since 2017.<sup>3</sup>

4. This inadequate enforcement effort constitutes a failure by the U.S. Government to effectively enforce its environmental laws. The CEC determined that the Vessel Speed Rule qualifies as environmental law under the USMCA.<sup>4</sup> Separately, 16 U.S.C. 1540(e)(1) and 16 U.S.C. § 1377(a) require the U.S. Government to enforce regulations, such as the Vessel Speed Rule, that implement the Endangered Species Act’s (ESA’s) prohibition of “taking” endangered species and the Marine Mammal Protection Act’s (MMPA’s) moratorium on “taking” marine mammals.<sup>5</sup>

5. The ESA and the MMPA give U.S. federal agencies a clear mandate to enforce the Vessel Speed Rule. The Fisheries Service promulgated the Vessel Speed Rule by invoking its authority under the ESA and the MMPA.<sup>6</sup> 16 U.S.C. § 1540(e)(1) provides that regulations issued pursuant to the ESA “shall be enforced” by the relevant U.S. Government

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<sup>1</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with NARWs, 73 Fed. Reg. 60173 (Oct. 10, 2008) (promulgating the Vessel Speed Rule), <https://www.federalregister.gov/documents/2008/10/10/E8-24177/endangered-fish-and-wildlife-final-rule-to-implement-speed-restrictions-to-reduce-the-threat-of-ship>; Final Rule to Remove the Sunset Provision of the Final Rule Implementing Vessel Speed Restrictions to Reduce the Threat of Ship Collisions with NARWs, 78 Fed. Reg. 73726 (Dec. 9, 2013) (making the Vessel Speed Rule permanent), <https://www.govinfo.gov/content/pkg/FR-2013-12-09/pdf/2013-29355.pdf>; 50 C.F.R. § 224.105 (codifying the Vessel Speed Rule).

<sup>2</sup> See generally 50 C.F.R. § 224.105.

<sup>3</sup> NMFS, 2017-2020 NARW Unusual Mortality Event (Dec. 6, 2021), <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event>.

<sup>4</sup> Commission for Environmental Cooperation [CEC], *Secretariat Determination in Accordance with Articles 24.27(2) and (3) of the United States-Mexico-Canada Agreement*, SEM-21-003 (Nov. 4, 2021) [hereinafter, “CEC Determination”], ¶ 28(c).

<sup>5</sup> 16 U.S.C. § 1540(e)(1) (“The provisions of this chapter and any regulations or permits issued pursuant thereto shall be enforced by the Secretary [of Commerce], the Secretary of the Treasury, or the Secretary of the Department in which the Coast Guard is operating, or all such Secretaries.”); 16 U.S.C. § 1377(a) (“Except as otherwise provided by [the MMPA], the Secretary [Of Commerce] shall enforce the provisions of [the MMPA]”).

<sup>6</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with NARWs, 73 Fed. Reg. 60173, 60182.

agency or agencies (e.g., Commerce, Treasury, and/or Homeland Security).<sup>7</sup> Similarly, 16 U.S.C. § 1377(a) provides that the Secretary of Commerce “shall enforce” the MMPA.<sup>8</sup>

6. The ESA and the MMPA also authorize federal agencies to impose penalties for violating the Vessel Speed Rule. For civil penalties under the ESA, 16 U.S.C. § 1540(a)(1), as amended by 15 C.F.R. § 6.3(f)(14) (Jan. 15, 2021), authorizes up to \$54,524 for each violation of “any regulation issued in order to implement” the ESA’s prohibition on “taking” endangered species.<sup>9</sup> Criminal penalties under the ESA, laid down in 16 U.S.C. § 1540(b) (as amended by 18 U.S.C. § 3571(b)(5)), include fines of up to \$100,000 and imprisonment for up to one year.<sup>10</sup> Similarly, 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.3(f)(11) (Jan. 15, 2021), authorizes civil penalties of up to \$30,107 for violations of the MMPA.<sup>11</sup> Criminal penalties under the MMPA, set out in 16 U.S.C. § 1375(b)(1) (as amended by 18 U.S.C. § 3571(b)(5)), include up to \$100,000 or up to one year of imprisonment for each violation of any regulation issued under the MMPA.<sup>12</sup>

7. The U.S. Government has failed to effectively enforce the Vessel Speed Rule. Collectively, the Fisheries Service, the National Oceanic and Atmospheric Administration Office of Law Enforcement and Office of General Counsel, and the U.S. Coast Guard prosecuted fewer than ten civil enforcement actions arising out of violations of the Vessel Speed Rule in any year since 2010 with the exception of 2013 and 2014, which had 13 and 17 enforcement actions respectively.<sup>13</sup> U.S. federal agencies undertook no enforcement actions whatsoever in 2016, and they undertook no actions throughout several seasons in other years as well, including January-June 2020, July-December 2018, July-December 2017, July-December 2015, and January-June 2011.<sup>14</sup>

8. This utter lack of enforcement was not for lack of violations. Violations of the Vessel Speed Rule are rampant.<sup>15</sup> When Oceana analyzed non-compliance with the Vessel Speed Rule between 2017 and 2020, it found that compliance in Seasonal Management Areas (SMAs) ranged from 67.3% to 10.4% and cooperation in Dynamic Management Areas (DMAs) ranged from 51.5% to 16.4%.<sup>16</sup> These rates represent thousands of violations per year.<sup>17</sup> Several of these

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<sup>7</sup> 16 U.S.C. § 1540(e)(1) (“The provisions of this chapter and any regulations or permits issued pursuant thereto shall be enforced by the Secretary [of Commerce], the Secretary of the Treasury, or the Secretary of the Department in which the Coast Guard is operating, or all such Secretaries.”).

<sup>8</sup> 16 U.S.C. § 1377(a) (“Except as otherwise provided by [the MMPA], the Secretary [of Commerce] shall enforce the provisions of [the MMPA]”).

<sup>9</sup> 16 U.S.C. § 1540(a)(1), as amended by 15 C.F.R. § 6.3(f)(14) (Jan. 15, 2021). The CEC determined that 16 U.S.C. § 1540(a)(1) qualifies as environmental law under the USMCA. CEC Determination, ¶ 33(e)(i). Amending provisions to update penalty amounts may, at a minimum, be considered “relevant legal instruments and may be referenced in the enforcement review.” *Id.* at ¶¶ 58-61.

<sup>10</sup> 16 U.S.C. § 1540(b)(1), as amended by 18 U.S.C. § 3571(b)(5). The CEC determined that 16 U.S.C. § 1540(b)(1) qualifies as environmental law under the USMCA. CEC Determination, ¶ 33(e)(ii).

<sup>11</sup> 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.3(f)(11) (Jan. 15, 2021). The CEC determined that 16 U.S.C. § 1375(a)(1) qualifies as environmental law under the USMCA. CEC Determination, ¶ 25(b).

<sup>12</sup> 16 U.S.C. § 1375(b) (providing criminal penalties). The CEC determined that 16 U.S.C. § 1375(b) qualifies as environmental law under the USMCA. CEC Determination, ¶ 25(c).

<sup>13</sup> Initial SEM, ¶¶ 39–40.

<sup>14</sup> Initial SEM, ¶ 39.

<sup>15</sup> See Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten NARWs* (July 2021) [hereinafter, “Speeding Toward Extinction”], 4–5, 21–37, [https://usa.oceana.org/wp-content/uploads/sites/4/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/wp-content/uploads/sites/4/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf). The Oceana report describes rates of non-compliance.

<sup>16</sup> *Id.* at 21, 32.

<sup>17</sup> *Id.* at 25, 32.

violations are flagrant, with top speeds reaching 40 knots—four times the Vessel Speed Rule’s limit.<sup>18</sup>

9. Ships that violate the Vessel Speed Rule pose grave risks to NARWs. As the Fisheries Service itself recognizes, the probability of a vessel strike killing a NARW “increase[s] rapidly and in a non-linear manner as vessel speed increase[s].”<sup>19</sup> A vessel strike will kill a whale 60 to 80 percent of the time when the ship is travelling at 14 knots, and a vessel strike is certain to kill a whale when the ship is travelling at 20 knots.<sup>20</sup>

10. Despite a statutory mandate to enforce the Vessel Speed Rule, and despite rampant violations of it, U.S. federal agencies have failed to effectively enforce the Vessel Speed Rule. Their neglect qualifies as a failure to effectively enforce U.S. environmental laws.

**B. The U.S. Government Has Failed to Effectively Enforce the MMPA and the ESA by Failing to Update the Vessel Speed Rule**

11. The U.S. Government has also failed to effectively enforce its environmental laws by failing to update the Vessel Speed Rule. Section 9 of the ESA, codified at 16 U.S.C. § 1538, and Section 101 of the MMPA, codified at 16 U.S.C. § 1371, prohibit vessel strikes with NARWs.<sup>21</sup> Additionally, 16 U.S.C. § 1382(a) requires (and 16 U.S.C. § 1540(f) grants ample authority for) the U.S. Government to issue regulations to protect and prevent vessel strikes. Despite these statutory mandates—and ample evidence that the Vessel Speed Rule is outdated and overly narrow—the U.S. Government has failed to update the Vessel Speed Rule since making that rule permanent in 2013. This regulatory neglect constitutes a failure by the U.S. Government to effectively enforce its environmental laws.

12. 16 U.S.C. § 1538(a)(1)(B), a provision of the ESA, prohibits vessel strikes with NARWs. That section makes it unlawful to “take any [endangered species] within the United States or the territorial sea of the United States.”<sup>22</sup> Since the ESA defines “take” broadly—meaning to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”<sup>23</sup>—and since NARWs are listed as endangered under the ESA,<sup>24</sup> any vessel strike of NARWs in U.S. waters constitutes a “take” of an endangered species in violation of 16 U.S.C. §1538(a)(1)(B).

13. The ESA directs the U.S. Government to promulgate regulations to enforce the ESA, including its prohibition of

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<sup>18</sup> *Id.* at 33.

<sup>19</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with NARWs, 73 Fed. Reg. 60173, 60176 (Oct. 10, 2008), <https://www.federalregister.gov/documents/2008/10/10/E8-24177/endangered-fish-and-wildlife-final-rule-to-implement-speed-restrictions-to-reduce-the-threat-of-ship>.

<sup>20</sup> *Id.*

<sup>21</sup> See 16 U.S.C. § 1538(a)(1)(B) (making it illegal to “take” endangered species within the United states or the territorial seas of the United States); 16 U.S.C. § 1371(a) (establishing a moratorium on the “taking” of marine mammals). The Endangered Species Act defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect, or attempt to engage in any such conduct.” 16 U.S.C. § 1532(19). Similarly, the MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt capture, or kill any marine mammal.” 16 U.S.C. § 1362(13). “Take” is defined in the MMPA regulations to include “the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal.” 50 C.F.R. § 216.3. NARWs are listed as endangered species under the ESA and are marine mammals under the MMPA. See 50 C.F.R. § 17.11 (listing the NARW as an endangered species under the ESA); 16 U.S.C. § 1362(6) (defining “marine mammal” under the MMPA to include “members of the order Cetacea”).

<sup>22</sup> 16 U.S.C. § 1538(a)(1)(B). The CEC determined that 16 U.S.C. § 1538(a)(1) qualifies as environmental law under the USMCA. CEC Determination, ¶ 33(c).

<sup>23</sup> See 16 U.S.C. § 1532(19).

<sup>24</sup> See 50 C.F.R. § 17.11 (listing the NARW as an endangered species).

vessel strikes.<sup>25</sup> When crafting these regulations, the U.S. Government must prioritize the protection of endangered species, “whatever the cost.”<sup>26</sup> As the U.S. Supreme Court observed in *Tennessee Valley Authority v. Hill*, the ESA is the “most comprehensive legislation for the preservation of endangered species ever enacted by any nation.”<sup>27</sup> Through the ESA, the U.S. Congress “has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities . . . .”<sup>28</sup>

14. The first paragraph of 16 U.S.C. § 1371(a), a provision of the MMPA, also prohibits vessel strikes with NARWs. That section establishes a moratorium—“a complete cessation”<sup>29</sup>—on the “taking”<sup>30</sup> of marine mammals.<sup>31</sup> As members of the order Cetacea, NARWs are “marine mammals” under the MMPA.<sup>32</sup> Moreover, to “take” under the MMPA includes “to harass, hunt, capture, or kill, or attempt to harass, hunt capture, or kill any marine mammal,”<sup>33</sup> as well as “the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal.”<sup>34</sup> Thus, each vessel strike of a NARW constitutes a “take” of an endangered marine mammal in violation of the first paragraph of 16 U.S.C. § 1371(a).

15. 16 U.S.C. § 1382(a), a provision of the MMPA, requires the U.S. Government to issue regulations that enforce the MMPA’s moratorium. Specifically, 16 U.S.C. § 1382(a) states that the Secretary of Commerce “shall prescribe such regulations as are necessary and appropriate to carry out the purposes of [the MMPA].”<sup>35</sup> Such regulations must reflect the MMPA’s policy that that marine mammals “should be protected and encouraged to develop *to the greatest extent feasible* . . . .”<sup>36</sup>

16. Despite petitions filed by Oceana and other non-profit organizations that amply document how revisions to the Vessel Speed Rule could prevent collisions with NARWs, which are discussed in Annex I, the Fisheries Service has not updated the Vessel Speed Rule since making the rule permanent in 2013.<sup>37</sup> More specifically, the Fisheries Service has failed to: (1) expand and establish new SMAs, in which covered vessels must comply with the Vessel Speed Rule; (2) make compliance with the Vessel Speed Rule mandatory in DMAs; (3) expand the Vessel Speed Rule so that it covers vessels under 65 feet in length; (4) mandate that vessels under 65 feet in length use automatic identification systems; and (5) narrow federal agencies’ exemptions from the Vessel Speed Rule. By failing to update the Vessel Speed Rule in

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<sup>25</sup> 16 U.S.C. §1540(f) (“The Secretary [of Commerce] . . . [is] authorized to promulgate such regulations as may be appropriate to enforce [the ESA].”)

<sup>26</sup> *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>27</sup> *Id.* at 184.

<sup>28</sup> *Id.* at 194.

<sup>29</sup> 16 U.S.C. § 1362(8) (defining “moratorium”).

<sup>30</sup> See 16 U.S.C. § 1362(13) (defining “taking”).

<sup>31</sup> See 16 U.S.C. § 1371(a) (establishing the moratorium). The CEC determined that 16 U.S.C. § 1371(a) qualifies as environmental law under the USMCA. CEC Determination, ¶ 25(a).

<sup>32</sup> See 16 U.S.C. § 1362(6) (defining “marine mammal” to include “members of the order Cetacea”).

<sup>33</sup> 16 U.S.C. § 1362(13).

<sup>34</sup> 50 C.F.R. § 216.3.

<sup>35</sup> 16 U.S.C. § 1382(a). The CEC determined that 16 U.S.C. § 1382(a) qualifies as environmental law under the USMCA. CEC Determination, ¶ 25(d).

<sup>36</sup> 16 U.S.C. § 1361(6) (emphasis added).

<sup>37</sup> Since the 2013 amendment to the Vessel Speed Rule merely made the rule permanent, the Vessel Speed Rule in place today is substantially identical to the Vessel Speed Rule as enacted in 2008—over 13 years ago. See Final Rule to Remove the Sunset Provision of the Final Rule Implementing Vessel Speed Restrictions to Reduce the Threat of Ship Collisions with NARWs, 78 Fed. Reg. 73,726 (Dec. 9, 2013) (making the Vessel Speed Rule permanent), <https://www.govinfo.gov/content/pkg/FR-2013-12-09/pdf/2013-29355.pdf>

these ways, the Fisheries Service has failed to effectively enforce 16 U.S.C. §§ 1538(a)(1)(B), 1371(a), and 1382(a).

17. *First*, the Fisheries Service has failed to expand the Vessel Speed Rule’s SMAs. Since 2008, new evidence has come to light that shows that NARWs are prevalent in areas and at times that are not protected by the current SMAs. This evidence calls for expanding SMAs in four different ways. First, studies have shown that the NARW’s range has shifted in response to climate change, such that NARWs live year-round in the waters east of the entrance to the Port of New York/New Jersey and south of Martha’s Vineyard and Nantucket.<sup>38</sup> The SMAs outside of the Ports of New York/New Jersey and the Block Island SMA should be expanded accordingly. Second, new data shows that NARWs use the area off the Port of Virginia year-round, and shipping traffic in that area has increased. The SMA off the Port of Virginia should be made effective year-round, and it should be expanded by an additional nautical 25 miles so that it covers the locations at which vessel strikes are most likely.<sup>39</sup> Third, additional studies have confirmed that 30 nautical miles from shore is the minimally protective distance for an SMA.<sup>40</sup> All SMAs that do not meet this range, including several SMAs in the mid-Atlantic and southeast regions of the United States, should be expanded to meet it.<sup>41</sup> Finally, new data shows that NARWs are present in the SMA off Race Point, Massachusetts through May 15.<sup>42</sup> Accordingly, the duration of the SMA off Race Point should be expanded so that NARWs are protected between January 1 and May 15.

18. *Second*, the Fisheries Service has failed to make compliance with the Vessel Speed Rule mandatory in DMAs. Because compliance with the Vessel Speed Rule in DMAs is voluntary, mariners routinely disregard it. In 2012, the Fisheries Service found that DMAs “had only modest, if any” impact on the rate of vessel strikes, since the Vessel Speed Rule was so routinely disregarded within them.<sup>43</sup> Similarly, in 2017, the agency found that compliance within DMAs was “poor.”<sup>44</sup> A 2019 Fisheries Service study pinpointed why: “conservation measures without consequence [are] not effective.”<sup>45</sup>

19. *Third*, the Fisheries Service has failed to make the Vessel Speed Rule applicable to vessels that are under 65 feet in length. Vessels under 65 feet in length have caused a majority of the observed collisions between NARWs and ships.<sup>46</sup> Thus, almost certainly, vessels under 65 feet in length have killed several NARWs. The Vessel Speed Rule will not prevent

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<sup>38</sup> N. Record et al., *Rapid Climate-Driven Circulation Changes Threaten Conservation of Endangered NARWs* 32 OCEANOGRAPHY 162 (2019), [https://tos.org/oceanography/assets/docs/32-2\\_record.pdf](https://tos.org/oceanography/assets/docs/32-2_record.pdf); see also Ex. 1, Whale and Dolphin Conservation et al., *Petition for Rulemaking to Prevent Deaths and Injuries of Critically Endangered NARWs from Vessel Strikes* (Aug. 6, 2020) [hereinafter, “2020 Petition”], 15–21.

<sup>39</sup> Whale and Dolphin Conservation, 2020 Petition, 21–22.

<sup>40</sup> See G.K. Silber and S. Bettridge, *An Assessment of the Final Rule to Implement Vessel Speed Restrictions to Reduce the Threat of Vessel Collisions with NARWs*, U.S. Department of Commerce, NOAA Technical Memorandum NMFS-OPR-48 (Feb. 2012), at 42 [hereinafter, “2012 Ship Speed Rule Analysis”], <https://repository.library.noaa.gov/view/noaa/4207>; D.W. Laist et al., *Effectiveness of Mandatory Vessel Speed Limitations for Protecting NARWs*, 23 ENDANG. SPECIES RES. 133–47, 144 (2014), [http://www.int-res.com/articles/esr\\_oa/n023p133.pdf](http://www.int-res.com/articles/esr_oa/n023p133.pdf).

<sup>41</sup> Whale and Dolphin Conservation, 2020 Petition, 22–23.

<sup>42</sup> *Id.* at 24.

<sup>43</sup> Silber and Bettridge, 2012 Ship Speed Rule Analysis, 36.

<sup>44</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis) 5-Year Review: Summary and Evaluation* 18 (Oct. 2017), <https://repository.library.noaa.gov/view/noaa/17809>; see also Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Vessel Speed Rule Assessment* 35 (June 2020) (noting “discrete areas of poor compliance”), <https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales>.

<sup>45</sup> Tim Cole et al., *Ships Do Not Comply with Voluntary Whale Protection Measures in Northeast USA Waters*, Presentation at the 2019 World Marine Mammal Conference, Dec. 9–12, 2019, <https://www.wmmconference.org/wp-content/uploads/2020/02/WMMC-Book-of-Abstracts-3.pdf>.

<sup>46</sup> Whale and Dolphin Conservation, 2020 Petition, 7.



mortality and serious injury to NARWs in the future if it is not expanded to cover vessels under 65 feet in length.

20. *Fourth*, the Fisheries Service has failed to require vessels under 65 feet in length to use an automatic identification system under the Vessel Speed Rule. Automatic identification systems would help the agency and external observers such as Oceana monitor whether vessels comply with the Vessel Speed Rule.<sup>47</sup>

21. *Fifth*, the Fisheries Service has failed to narrow the Vessel Speed Rule’s exemptions for federal agencies. According to a 2004 review of the Large Whale Ship Strike Database, U.S. Navy and Coast Guard vessels were responsible for 17.1% and 6.7% of collisions with whales, respectively.<sup>48</sup> Currently, the Vessel Speed Rule provides a blanket exemption to federal vessels, an exemption that holds regardless of the federal agency, the vessel’s type, or the vessel’s activities.<sup>49</sup> This exemption is overly broad. It covers not only vessels that are responding to active emergencies, but countless other vessels as well. Moreover, as the Vessel Speed Rule itself shows, a more tailored exemption is workable. Under the current Vessel Speed Rule, state law enforcement vessels are exempt only if they are engaged in law enforcement or search-and-rescue activities.<sup>50</sup>

22. Without these updates to the Vessel Speed Rule, the United States will continue to fail to prevent deaths and serious injuries to NARWs from vessel strikes. 16 U.S.C. §§ 1538(a)(1)(B), 1371(a), and 1382(a) prohibit such vessel strikes and require the Fisheries Service to issue regulations preventing them. The Fisheries Service’s failure to update the Vessel Speed Rule thus qualifies as a failure of the U.S. Government to effectively enforce its environmental laws.

**C. The U.S. Government Has Failed to Effectively Enforce the ESA and NEPA by Failing to Adequately Consider Consequences for NARWs in the U.S. Coast Guard’s Port Access Route Studies**

23. U.S. environmental law imposes procedural requirements on federal agencies to ensure that they take a “hard look” at the environmental consequences of their actions.<sup>51</sup> One such requirement is the ESA’s consultation requirement, codified at 16 U.S.C. § 1536(a)(2), which mandates that each federal agency must consult with the Fisheries Service and/or the Fish and Wildlife Service (FWS) to ensure that each of its actions “is not likely to jeopardize the continued existence of any endangered species or threatened species.”<sup>52</sup> A second procedural requirement is established by the primary operational provision of the National Environmental Policy Act (NEPA), codified at 42 U.S.C. § 4332(2)(C).<sup>53</sup> This provision of NEPA requires every federal agency to prepare what has come to be known as an environmental impact statement (EIS) for “major Federal actions significantly affecting the quality of the human environment.”<sup>54</sup> In developing the Port Access Route Studies (PARS) for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay

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<sup>47</sup> Oceana, *Speeding Toward Extinction*, at 41.

<sup>48</sup> *Id.* Navy and Coast Guard vessels might report strikes at a higher rate than other vessels. *Id.*

<sup>49</sup> See 50 C.F.R. § 224.105(a) (“These restrictions shall not apply to U.S. vessels owned or operated by, or under contract to, the Federal Government.”).

<sup>50</sup> *Id.*

<sup>51</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (“The sweeping policy goals announced in § 101 of NEPA are thus realized through a set of ‘action-forcing’ procedures that require that agencies take a “hard look” at environmental consequences’ . . . .”) (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976)).

<sup>52</sup> 16 U.S.C. § 1536(a)(2). The CEC determined that the ESA’s consultation requirement qualifies as environmental law under the USMCA. CEC Determination, ¶ 33(b).

<sup>53</sup> See 42 U.S.C. § 4332(2)(C); see also Jayni Foley Hein & Natalie Jacewicz, *Implementing NEPA in the Age of Climate Change*, 10 MICH J. ENVTL. & ADMIN. L. 1, 10 (2020) (labelling 42 U.S.C. § 4332(2)(C) as “the primary operational provision of [NEPA]”), <https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1113&context=mjeal>.

<sup>54</sup> *Id.*

and the PARS for the Northern New York Bight, the U.S. Coast Guard has violated both the ESA’s consultation requirement and NEPA’s primary operational provision, as well as related regulatory requirements.<sup>55</sup> Such violations constitute a failure of the United States to effectively enforce its environmental laws.

24. *First*, the ESA’s consultation requirement, codified at 16 U.S.C. § 1536(a)(2), provides that:

Each Federal agency shall, in consultation with and with the assistance of the Secretary [of the Interior, or the Secretary of Commerce with respect to certain marine life], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species . . . .<sup>56</sup>

25. The ESA’s consultation requirement is strict. The agency “must identify *any* potential effect, however small, on listed species and consult with the relevant agencies about the proposed action.”<sup>57</sup>

26. Regulations promulgated under the ESA’s consultation requirement, codified at 50 C.F.R. § 402.14, provide a specific procedure by which it is to be implemented.<sup>58</sup> They mandate that “[e]ach Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat.”<sup>59</sup> If such a determination is made, “formal consultation is required.”<sup>60</sup> To initiate formal consultation, the agency must send a request to the Fisheries Service and/or the FWS, including detailed information about the agency’s proposed action along with “the best scientific and commercial data available” to enable the Fisheries Service and/or the FWS to assess the proposed action’s effects on any listed species.<sup>61</sup>

27. *Second*, the main operative provision of NEPA, codified at 42 U.S.C. § 4332(2)(C), enacts an additional process designed to ensure that federal agencies carefully consider the effects of their actions on the environment.<sup>62</sup> NEPA requires all agencies of the U.S. Government to prepare an EIS when they take “major Federal actions significantly affecting the quality of the human environment.”<sup>63</sup> This obligation is expansive. As relevant here, “Federal actions” include “new or revised agency rules, regulations, plans, policies, or procedures,” as well as the “adoption of formal plans, such as official documents prepared or approved by federal agencies which guide or prescribe alternative uses of Federal resources, upon which future agency actions will be based.”<sup>64</sup> Meanwhile, NEPA’s implementing regulations

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<sup>55</sup> See 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.14(c)(1); 50 C.F.R. § 402.14(d); 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1508.18(a)–(b) (1978); 40 C.F.R. § 1508.11 (1978); 40 C.F.R. § 1501.4(b) (1978); 40 C.F.R. § 1501.4(c) (1978); 40 C.F.R. § 1501.4(e) (1978).

<sup>56</sup> 16 U.S.C. § 1536(a)(2).

<sup>57</sup> *Inst. for Fisheries Res. v. United States Food & Drug Admin.*, 499 F. Supp. 3d 657, 668 (N.D. Cal. 2020).

<sup>58</sup> 50 C.F.R. § 402.14. The CEC determined that 50 C.F.R. § 402.14 qualifies as environmental law under the USMCA. CEC Determination, ¶ 36(b).

<sup>59</sup> 50 C.F.R. § 402.14(a).

<sup>60</sup> *Id.*

<sup>61</sup> 50 C.F.R. § 402.14(c)(1) (establishing the requirement to send a written request to the Fisheries Service); 50 C.F.R. § 402.14(d) (requiring the agency to include the best scientific and commercial data available).

<sup>62</sup> 42 U.S.C. § 4332(2)(C).

<sup>63</sup> *Id.*

<sup>64</sup> 40 C.F.R. § 1508.18(a)–(b) (1978); *see also* 40 C.F.R. § 1508.1(q)(2), (3)(ii) (defining “Federal actions” similarly under NEPA regulations applicable after September 14, 2020). The NEPA regulations were initially enacted in 1978 and were amended as of September 14, 2020. *See* 40 C.F.R. § 1506.13 (providing that the new NEPA regulations apply to “any NEPA process begun after September 14, 2020”). Since the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight were begun before September 14, 2020, the 1978 NEPA regulations apply to them. *See* Port

proclaim that “the human environment” “shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.”<sup>65</sup>

28. Since an EIS, by statute, must be “detailed,” and since an EIS is required only for “major Federal actions significantly affecting” the environment, agencies must initially determine whether a particular action triggers NEPA’s primary operative provision.<sup>66</sup> If the agency is unsure of whether its action requires an EIS, the agency must complete an “environmental assessment” (EA), a shorter and less resource-intensive evaluation of the environmental effects of its action.<sup>67</sup> If the environmental assessment indicates that a proposed action will significantly affect the human environment, the agency must prepare an EIS.<sup>68</sup> Otherwise, the agency must make a “finding of no significant impact” (FONSI).<sup>69</sup>

29. The U.S. Coast Guard has violated both of these procedural requirements—the ESA’s consultation requirement and NEPA’s primary operative provision—in its development of the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight.<sup>70</sup> PARS are studies that the U.S. Coast Guard uses to designate offshore fairways and traffic separation schemes. In developing the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight—both of which will be used to establish sea lanes through the habitat of the NARW—the U.S. Coast Guard failed to consult with the Fisheries Service and failed to prepare either an EIS or an EA and FONSI, in violation of 16 U.S.C. § 1536(a)(2), 42 U.S.C. § 4332(2)(C), and related regulatory requirements.<sup>71</sup>

30. The U.S. Coast Guard violated the ESA’s consultation requirement by failing to consult with the Fisheries Service

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Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay, Delaware 85 Fed. Reg. 26695 (May 5, 2020), <https://www.govinfo.gov/content/pkg/FR-2020-05-05/pdf/2020-09538.pdf>; Port Access Route Study: Northern New York Bight, 85 Fed. Reg. 38907 (June 29, 2020), <https://www.govinfo.gov/content/pkg/FR-2020-06-29/pdf/2020-13901.pdf>. Nonetheless, as this Revised SEM shows, the Coast Guard’s failure to prepare either an environmental impact statement or an environmental assessment and a finding of no significant impact would violate the new NEPA regulations as well.

<sup>65</sup> 40 C.F.R. § 1508.11 (1978); *see also* 40 C.F.R. § 1508.1(m) (defining “human environment” similarly under NEPA regulations applicable after September 14, 2020).

<sup>66</sup> 42 U.S.C. § 4332(2)(C).

<sup>67</sup> 40 C.F.R. § 1501.4(b) (1978); *see also* 40 C.F.R. § 1501.5(a) (“An agency shall prepare an environmental assessment for a proposed action that is not likely to have significant effects or when the significance of the effects is unknown unless the agency finds that a categorical exclusion (§ 1501.4) is applicable or has decided to prepare an environmental impact statement.”); Hein & Jacewicz, *supra* note 53, at 10 (describing environmental assessments as “shorter and less resource-intensive” than environmental impact statements).

<sup>68</sup> 40 C.F.R. § 1501.4(c) (1978); *see also* 40 C.F.R. § 1502.3 (“[E]nvironmental impact statements are to be included in every Federal agency recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment.”).

<sup>69</sup> 40 C.F.R. § 1501.4(e) (1978) (requiring an agency to “[p]repare a finding of no significant impact (§ 1508.13), if the agency determines on the basis of the environmental assessment not to prepare a statement”); *see also* 40 C.F.R. § 1501.6(a) (“An agency shall prepare a finding of no significant impact if the agency determines, based on the environmental assessment, not to prepare an environmental impact statement because the proposed action will not have significant effects.”).

<sup>70</sup> *See* **Ex. 2**, United States Coast Guard, Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay (2021) [hereinafter, “New Jersey PARS”]; **Ex. 3**, United States Coast Guard, Port Access Route Study: Northern New York Bight (2021) [hereinafter, “New York PARS”].

<sup>71</sup> *See* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.14(c)(1); 50 C.F.R. § 402.14(d); 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1508.18(a)–(b) (1978); 40 C.F.R. § 1508.11 (1978); 40 C.F.R. § 1501.4(b) (1978); 40 C.F.R. § 1501.4(c) (1978); 40 C.F.R. § 1501.4(e) (1978).

about the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight. The ESA’s consultation requirement applies to these PARS, since the NARW is an endangered species, and the development of PARS is an agency action (as defined under the ESA’s consultation requirement).<sup>72</sup> Indeed, in Oceana’s comments on the draft report on the PARS for the Northern New York Bight, Oceana requested that the Coast Guard consult with the Fisheries Service to assess the effect of the proposed project on NARWs.<sup>73</sup> But there is no evidence that the U.S. Coast Guard consulted either the Fisheries Service or the FWS about how the sea lanes discussed in the PARS would affect NARWs. The U.S. Coast Guard’s final report on the PARS for the Northern New York Bight does not address impacts on NARWs at all, nor does it respond to Oceana’s comments.<sup>74</sup>

31. The U.S. Coast Guard also violated NEPA’s primary operational requirement by failing to prepare either an EIS or an EA and FONSI for the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight. This requirement applies to PARS, since PARS are “official documents prepared or approved by federal agencies which guide or prescribe alternative uses of Federal resources, upon which future agency actions will be based” and are therefore “Federal actions” within the meaning of NEPA.<sup>75</sup> Thus, at a minimum, the U.S. Coast Guard was required to prepare an environmental assessment to determine whether an EIS would be necessary. In the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight, however, the U.S. Coast Guard prepared neither an EIS nor an EA and a FONSI.<sup>76</sup> Instead, the Coast Guard stated that it would review environmental impacts “in subsequent rulemaking actions to establish fairways or routing measures.”<sup>77</sup> NEPA, however, requires the U.S. Coast Guard to review environmental effects during the development of its PARS, before its plans are too settled for environmental impacts to make a difference.<sup>78</sup>

32. Statutory and regulatory provisions for the ESA and NEPA require federal agencies to perform key procedures to account for the environmental impacts of their actions. In its development the PARS for the Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay and the PARS for the Northern New York Bight, the U.S. Coast Guard has failed to follow these procedures. This neglect qualifies as a failure of the United States to effectively enforce its environmental laws.

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<sup>72</sup> See 50 C.F.R. § 17.11 (listing the NARW as an endangered species); 50 C.F.R. § 402.02 (defining “action” to mean “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas”).

<sup>73</sup> **Ex. 4**, Oceana, Comment on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight (Aug. 30, 2021), at 28.

<sup>74</sup> See **Ex. 3**, New York PARS, at 60 (acknowledging but not addressing Oceana’s comments).

<sup>75</sup> 40 C.F.R. § 1508.18(b)(2).

<sup>76</sup> See New Jersey PARS; New York PARS.

<sup>77</sup> New Jersey PARS, at 17.

<sup>78</sup> See 42 U.S.C. § 4332(2)(C) (requiring the development of an environmental impact statement for any major Federal action significantly affecting the quality of the human environment); 40 C.F.R. § 1508.18(b)(2) (1978) (defining “Federal actions” to include the “[a]doption of formal plans, such as official documents prepared or approved by federal agencies which guide or prescribe alternative uses of Federal resources, upon which future agency actions will be based”); 40 C.F.R. § 1501.2(a) (“Agencies should integrate the NEPA process with other planning and authorization processes at the earliest reasonable time . . . .”); 40 C.F.R. § 1502.5 (“The [environmental impact statement] shall be prepared early enough so that it can serve as an important practical contribution to the decision-making process and will not be used to rationalize or justify decisions already made.”).

## II. FAILURE TO ENFORCE ENVIRONMENTAL LAWS RELATED TO FISHING GEAR ENTANGLEMENT

33. The U.S. Government has failed to protect NARWs from mortality and serious injury due to entanglements in commercial fishing gear, in violation of the NEPA, the MMPA, and the ESA. Per the Secretariat's request in the CEC Determination regarding Oceana's Initial SEM, Part II provides citations to the specific statutory and regulatory provisions violated by the conduct described in Oceana's Initial SEM.

### A. The U.S. Government Has Failed to Effectively Enforce NEPA's EIS Requirements

34. The Fisheries Service's EIS for the Proposed Risk Reduction Rule to amend the Take Reduction Plan for NARWs violates NEPA in multiple respects.<sup>79</sup> As discussed in Oceana's Initial SEM,<sup>80</sup> NEPA and its implementing regulations set forth specific procedures and requirements for the creation of an EIS, but the Fisheries Service failed to comply with those requirements.<sup>81</sup>

35. *First*, the Fisheries Service failed to give proper consideration to reasonable alternatives to the risk reduction measures outlined in the Proposed Risk Reduction Rule. Under 40 C.F.R. § 1502.14(a)–(b), an agency crafting an EIS was required to “[r]igorously explore and objectively evaluate” reasonable alternatives to the proposed action and discuss each of these alternatives in detail.<sup>82</sup> As Oceana pointed out in its comments on the Draft EIS, “[t]he existence of reasonable but unexamined alternatives renders an EIS inadequate.”<sup>83</sup>

36. During the scoping process that informed the Draft EIS, Oceana submitted comments recommending several proven and effective fisheries management strategies to strengthen the Proposed Risk Reduction Rule, including the use of focused dynamic management areas, expanded use of static management areas, enhanced monitoring of whale locations, fishing effort, catch, bycatch and entanglement, and broader use of satellite technology.<sup>84</sup> The Fisheries Service refused to conduct a meaningful evaluation of Oceana's proposals. The agency refused to evaluate certain alternatives offered by Oceana, including trap reductions, enhanced weak line requirements, static area closures, and gear marking requirements, on grounds that such strategies were “unpopular with stakeholders.”<sup>85</sup> But whether an

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<sup>79</sup> The Proposed Risk Reduction Rule can be found at: Nat'l Marine Fisheries Serv., *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery* (Proposed Rule), 85 Fed. Reg. 86,878, 86,880 (Dec. 31, 2021), <https://www.govinfo.gov/content/pkg/FR-2020-12-31/pdf/2020-28775.pdf>.

<sup>80</sup> Initial SEM, § 19

<sup>81</sup> Although the NEPA regulations were amended in 2020, this EIS was prepared using the prior version of the regulations, initially implemented in 1978. See Final Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending the Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule (“Final EIS”) (June 2021), Vol. 1, at 61, [https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/2021FEIS\\_Volume%20I.pdf](https://www.greateratlantic.fisheries.noaa.gov/public/nema/apsd/2021FEIS_Volume%20I.pdf). (“This EIS is being prepared using the 1978 CEQ NEPA Regulations.”). As such, the 1978 regulations are cited in this section.

<sup>82</sup> 40 C.F.R. § 1502.14(a)–(b) (1978).

<sup>83</sup> **Ex. 5**, Oceana, Comments on Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery; 85 Fed. Reg. 86,878 (December 31, 2020); Dkt. No. 201221-0351; RIN 0649-BJ09 and the related Draft Environmental Impact Statement (March 1, 2021), at 2 (citing *‘Ilio’ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006)).

<sup>84</sup> See **Ex. 6**, Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019).

<sup>85</sup> Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending the Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule (“Draft EIS”) (Nov. 2020), Vol. I, at 3-78 to 3-82, [https://www.greateratlantic.fisheries.noaa.gov/public/nema/PRD/DEIS\\_RIR\\_ALWTRP\\_RiskReductionRule\\_VolumeI.pdf](https://www.greateratlantic.fisheries.noaa.gov/public/nema/PRD/DEIS_RIR_ALWTRP_RiskReductionRule_VolumeI.pdf); Final EIS, Vol. 1, at 117–122.

alternative is reasonable is not properly determined based on popularity. Further, the Fisheries Service rejected the use of dynamic area management strategies to reduce risks to NARWs, despite the successful use of this approach in the past,<sup>86</sup> stating vaguely that the alternative was “[n]ot currently feasible with regulatory process.”<sup>87</sup> The Fisheries Service’s refusal to evaluate Oceana’s suggested alternatives based on popularity and summary dismissal of a proven strategy violate NEPA’s requirement to evaluate reasonable alternatives and discuss them in detail.<sup>88</sup>

37. *Second*, the Fisheries Service violated NEPA’s public participation requirement by holding closed-door meetings with fishing industry representatives during the scoping process for the EIS. Under 40 C.F.R. § 1501.7, “[a]gencies shall use an early and open process to determine the scope of issues for analysis in an EIS[.]”<sup>89</sup> The Draft and Final EIS, however, state that “most of the measures in the Alternative Two (preferred) come from New England states and after frequent meetings and close collaboration with trap/pot fishermen.”<sup>90</sup> The Fisheries Service’s participation in meetings closed to the public—which, as indicated by the Fisheries Service’s own statements, significantly influenced its selection of alternatives—violates NEPA’s requirement to maintain an open process.

38. *Third*, the EIS violates NEPA by falling short of NEPA’s standard of scientific integrity. Under 40 C.F.R. § 1502.24 “[a]gencies shall ensure the professional integrity, including scientific integrity, of the discussions and analyses” in an EIS.<sup>91</sup> The EIS, however, fundamentally undermined this requirement by measuring alternatives against a Potential Biological Removal level (PBR) of 0.9, which fails to account for injuries to NARWs in Canadian waters. The Fisheries Service acknowledged that the U.S. PBR should be reduced to account for injuries to whales in Canadian waters, but concluded that because the Fisheries Service could not precisely apportion the time spent in U.S. and Canadian waters, it would ignore injuries in Canadian waters when setting the PBR.<sup>92</sup> Thus, the EIS is fundamentally flawed, and therefore lacks integrity in violation of 40 C.F.R. § 1502.24, because it fails to evaluate alternatives for reducing NARW deaths and injuries using the proper goalpost.

39. In addition, the Fisheries Service relied on outdated data from 2017 regarding the number of buoy lines in the water.<sup>93</sup> The Fisheries Service simply failed to update the data, and it is not reasonable assume that this number has not changed significantly since 2017. Because buoy line data are fundamental to the evaluation of alternatives for reducing NARW mortality and serious injury, the Fisheries Service’s use of outdated data undermines the integrity of the EIS in violation of 40 C.F.R. § 1502.24.

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<sup>86</sup> See, e.g., Nat’l Marine Fisheries Serv., *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations* (Final Rule), 67 Fed. Reg. 1133 (Jan. 9, 2002), <https://www.govinfo.gov/content/pkg/FR-2002-01-09/pdf/02-272.pdf>; Nat’l Marine Fisheries Serv., *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations* (Interim Final Rule), 67 Fed. Reg. 1142 (Jan. 9, 2002), <https://www.govinfo.gov/content/pkg/FR-2002-01-09/pdf/02-272.pdf>; Nat’l Marine Fisheries Serv., *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan* (Final Rule), 72 Fed. Reg. 34,632 (June 25, 2007), <https://www.govinfo.gov/content/pkg/FR-2007-06-25/pdf/E7-12251.pdf>.

<sup>87</sup> Draft EIS, Vol. I, at 3-79; Final EIS, Vol. I, at 118.

<sup>88</sup> See 40 C.F.R. § 1502.14(a)–(b) (1978).

<sup>89</sup> 40 C.F.R. § 1501.7 (1978). The CEC found that the 2020 version of this regulation, which includes identical language, meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 45(a).

<sup>90</sup> Draft EIS Vol. I at 1-23; Final EIS, Vol. I, at 39.

<sup>91</sup> 40 C.F.R. § 1502.24 (1978).

<sup>92</sup> Nat’l Marine Fisheries Serv., *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery* (Proposed Rule), 85 Fed. Reg. 86,878, 86,880 (Dec. 31, 2021), <https://www.govinfo.gov/content/pkg/FR-2020-12-31/pdf/2020-28775.pdf>.

<sup>93</sup> See Draft EIS, Vol. I, at 3-66, Final EIS, Vol. I, at 73.

40. Further, the EIS’s evaluation of alternatives relies heavily on a model known as the Decision Support Tool (DST).<sup>94</sup> That model, in turn, relies on other models, including the Fisheries Service Vertical Line/Co-occurrence Model developed by Industrial Economics, Inc.<sup>95</sup> These models use information about whale distribution, buoy line numbers, and configurations of trap/pot gear to estimate risks to NARWs. As described in an expert opinion by Dr. Sean Brilliant of the Dalhousie University Department of Oceanography, these models rely on an estimate of gear threat that significantly overemphasizes the contribution of rope strength to entanglement risk, thereby overestimating the number of death and serious injuries that can be prevented through use of weak rope inserts, as required by the Final Rule.<sup>96</sup> The Fisheries Service’s reliance on deficient data and models violates the scientific integrity requirement of 40 C.F.R. § 1502.24.<sup>97</sup>

41. *Fourth*, the Fisheries Service failed to consider the cumulative impact and indirect effects of all human activities on NARWs. Under 40 C.F.R. § 1508.25(c), an EIS must consider the cumulative impact of the proposed agency action.<sup>98</sup> Cumulative impact “is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”<sup>99</sup> Likewise, under 40 C.F.R. § 1502.16(b), the EIS must discuss indirect effects and their significance.<sup>100</sup> Indirect effects “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”<sup>101</sup> As noted above, the EIS ignored the impact of human impact on whales while they are in Canadian waters. The Fisheries’ Service failure to account for harm to NARWs in Canadian waters violated sections 1508.25(c) and 1502.16(b).

42. These deficiencies undermine the EIS and represent a failure by the U.S. Government to enforce domestic environmental law. As described further in Annex I, Oceana sought to obtain a remedy for the above-described issues, by submitting comments during the EIS scoping process and by submitting comments on the Draft EIS, yet the Fisheries Service failed to correct the issues described. Oceana’s arguments under NEPA described above are not the subject of any pending litigation.

**B. The U.S. Government Has Failed to Effectively Enforce Multiple MMPA and ESA Rules to Reduce Incidental Takings**

43. As explained in Oceana’s Initial SEM,<sup>102</sup> the Fisheries Service’s failure to protect NARWs from fishing entanglements violates the MMPA and the ESA in multiple respects. Per the Secretariat’s request in the CEC Determination, additional citations to specific statutory and regulatory provisions violated by the conduct described in Oceana’s Initial SEM are included below.

44. *First*, the Fisheries Service has failed to comply with the MMPA’s mandate to reduce mortality and serious injury (M/SI) of NARWs to insignificant levels. Under 16 U.S.C. § 1387(a)(1), “it shall be the immediate goal that the incidental

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<sup>94</sup> Draft EIS Vol. I, at 1-21, 3-65; Final EIS, Vol. I, at 180.

<sup>95</sup> *See id.*

<sup>96</sup> **Ex. 5** at Appendix I, Dr. Sean Brilliant, Evaluation of National Marine Fisheries Service’s Proposed Amendment to the ALWTRP, at 5 (Feb. 26, 2021).

<sup>97</sup> 40 C.F.R. § 1501.24 (1978).

<sup>98</sup> 40 C.F.R. § 1508.25(c) (1978).

<sup>99</sup> 40 C.F.R. § 1508.7 (1978).

<sup>100</sup> 40 C.F.R. § 1502.16(b) (1978).

<sup>101</sup> 40 C.F.R. § 1508.8 (1978).

<sup>102</sup> *See* Initial SEM at §§16–18, 20–29.

mortality or serious injury (M/SI) of marine mammals occurring in the course of commercial fishing operations be reduced to insignificant levels approaching a zero mortality and serious injury rate within 7 years after April 30, 1994.”<sup>103</sup> Further, 16 U.S.C. § 1387(b)(1) provides that, “[c]ommercial fisheries shall reduce incidental mortality and serious injury of marine mammals to insignificant levels approaching a zero mortality and serious injury rate within 7 years after April 30, 1994.”<sup>104</sup> The Fisheries Service’s failure to reduce M/SI resulting from fishing gear entanglements to insignificant levels violates these provisions of the MMPA.

45. *Second*, the Final Risk Reduction Rule amending the Take Reduction Plan for NARWs fails to meet statutory requirements. Under 16 U.S.C. § 1387(f)(2), “the immediate goal of a take reduction plan for a strategic stock shall be to reduce, within 6 months of its implementation, the incidental mortality or serious injury of marine mammals incidentally taken in the course of commercial fishing operations to levels less than the potential biological removal level established for that stock under section 1386 of this title.”<sup>105</sup> The Final Rule fails to meet this requirement. By the agency’s own admission, it will take until 2025 to reduce M/SI to 1.04—a level that still exceeds the PBR—and M/SI will not approach zero until 2030, if at all.<sup>106</sup>

46. *Third*, the Fisheries Service has failed to issue emergency regulations to protect NARWs, as required by the MMPA and ESA. Under the MMPA, 16 U.S.C. § 1387(g)(1)(A)(i), “[i]f the Secretary finds that the incidental mortality and serious injury of marine mammals from commercial fisheries is having, or is likely to have, an immediate and significant adverse impact on a stock or species,” the Fisheries Service “shall prescribe emergency regulations to reduce such incidental mortality and serious injury in that fishery.”<sup>107</sup> This requirement is reiterated in MMPA’s implementing regulations at 50 C.F.R. § 229.9(a).<sup>108</sup> The ESA and its implementing regulations, 16 U.S.C. § 1533(b)(7) and 50 C.F.R. § 424.20, allow the Fisheries Service to implement regulations to take immediate effect and to bypass certain procedural requirements, if necessary to address a significant risk posed to a species.<sup>109</sup> The Fisheries Service has not issued any emergency regulations to protect NARWs, as required by the statutes and regulations.

47. *Fourth*, the Fisheries Service has allowed incidental takings without an authorization, in violation of the MMPA. The MMPA, 16 U.S.C. § 1371(a) creates a moratorium on the taking of marine mammals but creates an exception for takes pursuant to incidental take authorizations issued by the agency.<sup>110</sup> The prohibition on taking without an authorization is

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<sup>103</sup> 16 U.S.C. § 1387(a)(1).

<sup>104</sup> 16 U.S.C. § 1387(b)(1). The CEC found that this provision meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 25(e)(ii).

<sup>105</sup> 16 U.S.C. § 1387(f)(2). The CEC found that this provision meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 25(e)(iv)(1).

<sup>106</sup> National Marine Fisheries Service, Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council’s Omnibus Essential Fish Habitat Amendment 2 [Consultation No. GARFO-2017-00031] (May 27, 2021), Appendix A: NARW Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 475–79, <https://repository.library.noaa.gov/view/noaa/30648>.

<sup>107</sup> 16 U.S.C. § 1387(g)(1)(A)(i). The CEC found that this provision meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 25(e)(v).

<sup>108</sup> 50 C.F.R. § 229.9(a). The CEC found that this provision meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 28(e).

<sup>109</sup> 16 U.S.C. § 1533(b)(7); 50 C.F.R. § 424.20. The CEC found that these provisions meet the definition of environmental law under the USMCA. See CEC Determination at ¶¶ 33(a), 36(d).

<sup>110</sup> 16 U.S.C. § 1371(a) (flush text) creates the moratorium, while section 1371(a)(2) provides for incidental take authorizations. Section 1371(a) also creates other exceptions not relevant here; for example, for scientific research, see 16 U.S.C. § 1371(a)(1).



reiterated in the MMPA regulations at 50 C.F.R. § 229.3(a).<sup>111</sup> Per 16 U.S.C. § 1387(c)(3)(A), a commercial fishing vessel must have an authorization to engage in the lawful incidental taking of marine mammals.<sup>112</sup> Under 16 U.S.C. § 1371(a)(5)(E)(i), before issuing an incidental take permit for an endangered or threatened marine mammal, such as the NARW, the Fisheries Service must go through a public notice and comment process and make particular findings regarding the impact of the incidental M/SI on the species.<sup>113</sup> The Fisheries Service acknowledges that incidental takes are occurring, yet the agency has not undergone a public notice-and-comment process nor authorized any commercial fishing vessels for incidental take of endangered NARWs as required under the Marine Mammal Authorization Program for Commercial Fisheries. The Fisheries Service has therefore violated and failed to effectively enforce 16 U.S.C. § 1371(a)(5)(E)(i), 50 C.F.R. § 229.3(a), and 16 U.S.C. § 1387(c)(3)(A).

48. *Fifth*, the Fisheries Service has allowed incidental takings without a permit, in violation of the ESA. The ESA, at 16 U.S.C. § 1538(a)(1)(B), prohibits the taking of endangered species unless an incidental take permit has been issued under 16 U.S.C. § 1539.<sup>114</sup> As such, state fisheries should request incidental take permits from the Fisheries Service under the ESA when the state fisheries interact with threatened or endangered species.<sup>115</sup> The Fisheries Service has not issued any incidental take permits for NARWs, despite the Final Risk Reduction Rule’s acknowledgement that NARWs have been and will continue to be taken.

49. These violations constitute a failure to effectively enforce environmental law. As described further in Annex I, a coalition of environmental organizations sought to remedy these issues by petitioning the Fisheries Service to issue emergency regulations to protect NARWs from M/SI.<sup>116</sup>

### **III. CONCLUSION**

50. For the foregoing reasons, Oceana respectfully requests that the CEC Secretariat develop, on an expedited basis, a factual record under Article 24.28 on the failure of the U.S. Government to effectively enforce its environmental laws to protect North Atlantic right whales. A factual record will clarify the many ways in which the U.S. Government has failed to effectively enforce domestic environmental laws specifically designed to protect these endangered marine mammals from the primary human threats of vessel strikes and fishing gear entanglement. A factual record will also allow all Parties, especially the United States and Canada, and the CEC to develop a successful North Atlantic right whale conservation strategy that encompasses the full range of the species along the Atlantic coast.

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<sup>111</sup> 50 C.F.R. § 229.3(a).

<sup>112</sup> 16 U.S.C. § 1387(c)(3)(A).

<sup>113</sup> 16 U.S.C. § 1371(a)(5)(E)(i). The CEC found that this provision meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 25(a)(iv).

<sup>114</sup> 16 U.S.C. § 1538(a)(1)(B). The CEC found that this provision meets the definition of environmental law under the USMCA. See CEC Determination at ¶ 33(c). Section 1538(a)(1) also creates an exception, not relevant here, for management agreements carried out in cooperation with states, see 16 U.S.C. § 1535.

<sup>115</sup> See 16 U.S.C. § 1539(a)(1)(B).

<sup>116</sup> The U.S. Government’s failure to enforce U.S. environmental law to protect NARWs from M/SI from entanglement in commercial fishing gear is also the subject of pending litigation, as described in Annex I.

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## ANNEX I

### Remedies Pursued and Pending Proceedings

This Annex sets forth remedies sought by U.S. environmental organizations to address the failures to enforce U.S. environmental law described in Oceana’s statement of facts, and also identifies pending proceedings that relate to similar issues.

## **I. REMEDIES AND PROCEEDINGS RELATED TO VESSEL STRIKES**

U.S. environmental organizations have pursued private remedies under U.S. law to urge the United States to enforce its environmental laws to protect North Atlantic Right Whales (NARWs) from mortality and serious injury (M/SI) caused by vessel strikes, but those attempts have fallen on deaf ears. In 2012, three environmental organizations petitioned the National Marine Fisheries Service (Fisheries Service) to update and expand the Vessel Speed Rule to incorporate additional safeguards against vessel strikes.<sup>1</sup> The Fisheries Service never responded to the petition. In August 2020, following reports of an alarming increase in NARW mortalities, a group of environmental organizations again petitioned the Fisheries Service to strengthen the Vessel Speed Rule.<sup>2</sup> The Fisheries Service again failed to respond to the petition. In January 2021, the authors of the petitions filed suit in the U.S. District Court for the District of Columbia to compel a response.<sup>3</sup> Oceana has also submitted comments on several occasions asking the government to strengthen protections for NARWs against vessel strikes.<sup>4</sup> Thus, the U.S. government has been on notice for nearly a decade that it needs to reexamine the impact of vessel strikes on NARWs and to implement measures to effectively enforce the mandates of the Marine Mammal Protection Act and Endangered Species Act. In light of the Fisheries Service’s complete inaction in response to the petitions, it is clear that these remedies have not sufficiently addressed the Fisheries Service’s failures to enforce U.S. environmental law.

While environmental organizations have sought domestic remedies regarding the Fisheries Service’s failures to enforce, these actions should not foreclose development of a factual record by the Secretariat. Under USMCA Art. 24.27.4(a), if “the matter at issue is the subject of a pending judicial or administrative proceeding . . . the Secretariat shall proceed no further.” However, for the existence of a pending judicial or administrative proceeding to halt the SEM process, “there must be a reasonable expectation that the pending judicial or administrative proceeding invoked by the Party will address and potentially resolve the matters raised in the submission.”<sup>5</sup> As for the above-described petitions, the U.S. government has declined to take any action in response for nine years; it is clear they do not plan to do so. As for the litigation, it will not resolve the issues described in Oceana’s statement of facts because the sole remedy sought by the plaintiffs is a court order requiring the Fisheries Service to respond to their petition. As such, even if the plaintiffs prevail, the Fisheries Service may simply respond to the petition while refusing to take further action to enforce U.S.

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<sup>1</sup> See The Humane Society of the United States, Center for Biological Diversity, Defenders of Wildlife, & Whale and Dolphin Conservation Society, Petition for Rulemaking to Prevent Deaths and Injuries of Critically Endangered North Atlantic Right Whales from Ship Strikes (June 28, 2012), [https://www.biologicaldiversity.org/campaigns/boat\\_strikes/pdfs/NARWShipSpeedPetition\\_6-28-12.pdf](https://www.biologicaldiversity.org/campaigns/boat_strikes/pdfs/NARWShipSpeedPetition_6-28-12.pdf).

<sup>2</sup> See Whale and Dolphin Conservation, Center for Biological Diversity, Conservation Law Foundation, Defenders of Wildlife, Humane Society of the United States, & Humane Society Legislative Fund, Petition for Rulemaking to Prevent Deaths and Injuries of Critically Endangered North Atlantic Right Whales from Vessel Strikes (Aug. 6, 2020), [https://www.biologicaldiversity.org/species/mammals/North\\_Atlantic\\_right\\_whale/pdfs/NARW-Ship-Speed-Petition-08-06-2020.pdf](https://www.biologicaldiversity.org/species/mammals/North_Atlantic_right_whale/pdfs/NARW-Ship-Speed-Petition-08-06-2020.pdf).

<sup>3</sup> See **Ex. 7**, Complaint, *Whale and Dolphin Conservation, et al. v. National Marine Fisheries Service, et al.*, No. 21-cv-112 (D.D.C.), ECF No. 1 (Jan. 13, 2021).

<sup>4</sup> See **Ex. 4**, Oceana, Comment on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight (Aug. 30, 2021), at 28.; **Ex. 8**, Oceana, Comment Letter on Vessel Speed Rule Assessment (Mar. 26, 2021); **Ex. 9**, Oceana, Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay (Nov. 10, 2020).

<sup>5</sup> Secretariat of the Commission for Environmental Cooperation of North America, Article 15(1) Notification to Council that Development of a Factual Record is Warranted, Submission No. SEM-01-001/Cytrar II, at 5–6 (July 29, 2002), <http://www.cec.org/wp-content/uploads/wpallimport/files/01-1-adv-e.pdf>.

environmental law to protect NARWs from vessel strikes. Therefore, because the pending litigation will not resolve the failures to enforce, the Secretariat should proceed with development of a factual record.

## II. REMEDIES AND PROCEEDINGS RELATED TO FISHING GEAR ENTANGLEMENT

Environmental organizations have also sought private remedies for the failures of the United States to enforce domestic environmental law to protect NARWs from M/SI related to entanglement in commercial fishing gear, but again, those attempts have been unsuccessful.

In December 2020, a coalition of environmental nonprofit organizations submitted an emergency petition to the Fisheries Service, requesting emergency action under the Marine Mammal Protection Act (MMPA) to protect NARWs from M/SI related to fishing gear entanglement.<sup>6</sup> Specifically, the petition requested that the Fisheries Service use its authority to implement emergency measures to promulgate emergency regulations prohibiting trap/pot and gillnet fishing that uses static vertical lines in certain areas; and that the Fisheries Service expand and extend two existing area closures.<sup>7</sup> The Fisheries Service failed to respond to the petition.<sup>8</sup> On December 9, 2021, the Center for Biological Diversity petitioned the Fisheries Service to require trap/pot fisheries to transition to ropeless-only methods of fishing within the next five years to protect marine life, including NARWs.<sup>9</sup> These petitions put the Fisheries Service on notice of its failures to enforce U.S. environmental law and demonstrate that environmental organizations have implored the Fisheries Service to strengthen protections to protect NARWs from M/SI from fishing gear entanglement. The Fisheries Service, however, has continually failed to implement adequate protections. The same organizations that filed the 2020 petition are also engaged in litigation against the Fisheries Service in federal court, bringing claims under the MMPA and the ESA.<sup>10</sup> The Maine Lobsterman's Association has also filed suit against the Fisheries Service, seeking to weaken the protections for NARWs.<sup>11</sup>

Oceana has also submitted comments imploring the government to strengthen protections for NARWs against entanglement in fishing gear by submitting comments on the Biological Opinion<sup>12</sup> and Proposed Risk Reduction Rule.<sup>13</sup> Further, Oceana has twice sought to remedy the flaws in the Fisheries Service's Environmental Impact Statement (EIS)

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<sup>6</sup> See Center for Biological Diversity, Conservation Law Foundation, Defenders of Wildlife, & The Humane Society of the United States, Emergency Petition to the National Marine Fisheries Service to Take Emergency Action Under the Marine Mammal Protection Act to Protect Critically Endangered North Atlantic Right Whales from Death and Serious Injury in Commercial Fishing Gear (Dec. 2, 2020), [https://www.biologicaldiversity.org/species/mammals/North\\_Atlantic\\_right\\_whale/pdfs/2020-12-02-Center-et-al-NARW-MMPA-Emergency-Petition.pdf](https://www.biologicaldiversity.org/species/mammals/North_Atlantic_right_whale/pdfs/2020-12-02-Center-et-al-NARW-MMPA-Emergency-Petition.pdf).

<sup>7</sup> *Id.* at 12–30.

<sup>8</sup> **Ex. 10**, Amended Complaint, *Center for Biological Diversity, et al. v. Gina Raimondo, et al.*, No. 18-cv-112 (D.D.C.), ECF No. 170 at § 70 (Sept. 17, 2021).

<sup>9</sup> Center for Biological Diversity, Petition to Require Transition to Ropeless Fishing (Dec. 9, 2021), <https://www.biologicaldiversity.org/campaigns/fisheries/pdfs/2021-12-Center-Ropeless-Petition.pdf>.

<sup>10</sup> See *id.*; see also **Ex. 11**, Complaint, *Center for Biological Diversity, et al. v. Gina Raimondo, et al.*, No. 18-cv-112 (D.D.C.), ECF No. 1 (Jan. 18, 2018).

<sup>11</sup> See **Ex. 12**, Complaint, *Maine Lobsterman's Association v. National Marine Fisheries Service, et. al*, No. 21-cv-2509 (D.D.C.), ECF No. 1 (Sept. 21, 2021).

<sup>12</sup> See **Ex. 13**, Oceana, Comment Letter on Draft BiOp (Feb. 19, 2021).

<sup>13</sup> See **Ex. 5**, Oceana, Comments on Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery; 85 Fed. Reg. 86,878 (December 31, 2020); Dkt. No. 201221-0351; RIN 0649-BJ09 and the related Draft Environmental Impact Statement (March 1, 2021).

for the Final Rule amending the Take Reduction Plan for NARWs. During the scoping process for the EIS, Oceana offered comments setting forth alternatives to the mitigation measures outlined in the Rule,<sup>14</sup> but the Fisheries Service chose not to implement those measures in the Draft EIS. Oceana then commented on the Draft EIS,<sup>15</sup> but when the Fisheries Service issued the Final EIS, it again failed to make the majority of the changes proposed by Oceana. Oceana's arguments under NEPA described in the revised Submission on Enforcement Matters are not the subject of any pending litigation.

On August 19, 2021, Oceana submitted a letter to the Secretaries of Commerce, Homeland Security, and Interior detailing Oceana's claims in its Initial Submission on Enforcement Matters.<sup>16</sup> Although receipt was acknowledged, the U.S. government has not provided a substantive response.

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<sup>14</sup> See **Ex. 6**, Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019).

<sup>15</sup> See **Ex. 5**, Oceana, Comments on Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery; 85 Fed. Reg. 86,878 (December 31, 2020); Dkt. No. 201221-0351; RIN 0649-BJ09 and the related Draft Environmental Impact Statement (March 1, 2021).

<sup>16</sup> See **Ex. 14**, Oceana, Notice Letter to U.S. Government Regarding USMCA Article 24.27 Submission on Enforcement Matters Due to Failures to Effectively Comply with, Implement, or Enforce Environmental Laws at 8-25 (Aug. 18, 2021).

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**To:** "sem@cec.org" <sem@cec.org>

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**Subject:** [EXTERNAL] Oceana USMCA Art. 24.27 Submission on Enforcement Matters - North Atlantic Right Whales

**Date:** Mon, 4 Oct 2021 12:48:35 +0000

**Importance:** High

**Attachments:** Oceana\_USMCA\_Art\_24.27\_Submission\_on\_Enforcement\_Matters\_(10-04-2021).pdf

**Inline-Images:** image001.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear CEC Secretariat

On behalf of Oceana and Whitney Webber, Oceana's Campaign Director for Responsible Fishing, please find Oceana's USMCA Art 24 27 Submission on Enforcement Matters (SEM) in the attachment

As detailed in Oceana's SEM, the United States is failing to effectively enforce its environmental laws to adequately protect the critically endangered North Atlantic right whale. Oceana requests that the CEC Secretariat develop a factual record, as contemplated by Article 24 28, on an expedited basis. A factual record will clarify the many ways that the U.S. government has failed to effectively enforce its environmental laws specifically designed to protect these endangered marine mammals from the primary human threats of fishing gear entanglement and vessel strikes, as well as the additional stressors of climate change, ocean noise, and offshore energy development. A factual record will also allow all Parties, especially the United States and

Canada, and the CEC to develop a successful North Atlantic right whale conservation strategy that encompasses the full range of the species along the Atlantic coast. Considering the dire status of North Atlantic right whales and the legal requirement based on best available science that *less than one* North Atlantic right whale can be killed or seriously injured per year if the species is to recover, we urge the U.S. Government to *immediately and effectively* comply with, implement, and enforce all applicable environmental laws, including the requirement to implement interim emergency management measures.

In addition to the attached SEM, please find accompanying documents at the following link:

- [https://oceana.org-my.sharepoint.com/:f/g/person/acate\\_oceana\\_org/EtytKwfezRVLmpoygd\\_nKzABeVISHdCwYwVuvKx0jv1miw?e=xlrlnh](https://oceana.org-my.sharepoint.com/:f/g/person/acate_oceana_org/EtytKwfezRVLmpoygd_nKzABeVISHdCwYwVuvKx0jv1miw?e=xlrlnh)

Should you have any questions or any difficulty accessing any of these materials, please do not hesitate to email Whitney Webber at [wwebber@oceana.org](mailto:wwebber@oceana.org), cc'ing me: [acate@oceana.org](mailto:acate@oceana.org).

Thank you for your time and careful consideration of Oceana's SEM.

Sincerely,  
Alicia Cate

P.S. Please direct any/all media inquiries to Megan Jordan at [mjordan@oceana.org](mailto:mjordan@oceana.org), cc'ing Dustin Cranor at [dcranor@oceana.org](mailto:dcranor@oceana.org). Thank you!

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October 4, 2021

*Submitted via email*

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Legal Affairs and SEM  
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**Re: USMCA Article 24.27 Submission on Enforcement Matters Due to Failures of the United States to Effectively Enforce Environmental Laws to Protect Critically Endangered North Atlantic Right Whale**

Dear CEC Secretariat:

As detailed in Oceana's USMCA Article 24.27 Submission on Enforcement Matters (SEM) (attached), the United States is failing to effectively enforce its environmental laws to adequately protect the critically endangered North Atlantic right whale. Oceana requests that the CEC Secretariat develop a factual record, as contemplated by Article 24.28, on an expedited basis. A factual record will clarify the many ways that the U.S. government has failed to effectively enforce its environmental laws specifically designed to protect these endangered marine mammals from the primary human threats of fishing gear entanglement and vessel strikes, as well as the additional stressors of climate change, ocean noise, and offshore energy development. A factual record will also allow all Parties, especially the United States and Canada, and the CEC to develop a successful North Atlantic right whale conservation strategy that encompasses the full range of the species along the Atlantic coast.

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.2 million members and supporters in the United States, including over 365,000 members and supporters on the U.S. Atlantic seaboard. For twenty years, Oceana has campaigned to win strategic, directed campaigns that achieve measurable outcomes to help make our oceans more biodiverse and abundant. Oceana has engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species, with a particular interest in effective bycatch minimization and reduction, if not elimination of, fishing gear entanglement-related death, injury, and harm to protected species, including critically endangered North Atlantic right whales (NARWs). In addition, Oceana is interested in seeing the reduction, if not elimination, of vessel strike-related death, injury, and harm to NARWs. Additional human-caused factors that hinder NARW recovery, such as climate change, ocean noise, and offshore energy development, are also sources of great concern. In 2019, Oceana launched a binational campaign in the United States and Canada to urge the respective governments to protect the species.

Due to the many failures to effectively enforce the environmental laws and regulations of the United States detailed in the Statement of Facts and supporting documents, Oceana is filing this SEM to urge immediate action by the U.S. Government to adequately protect NARWs. Relevant federal agencies and sub-agencies or offices of the U.S. Government that have failed to uphold their legal obligations to protect North Atlantic right whales include: the National Marine Fisheries Service (Fisheries Service), National Oceanic and Atmospheric Administration (NOAA) Office of Law



Oceana USMCA Article 24.27 Submission on Enforcement Matters – Cover Letter

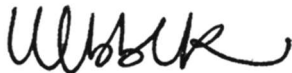
October 4, 2021

Page 2

Enforcement, and NOAA Office of General Counsel, within the U.S. Department of Commerce, the U.S. Coast Guard, within the U.S. Department of Homeland Security, and the Bureau of Ocean Energy Management (BOEM), within the U.S. Department of Interior. An abundance of evidence, much of which is contained in Oceana’s August 18 Notice Letter to the U.S. Government,<sup>1</sup> comment letters,<sup>2</sup> a prior legal brief,<sup>3</sup> and Oceana’s July 2021 vessel speed report,<sup>4</sup> demonstrates that the U.S. Government is not effectively enforcing its environmental laws and regulations to protect NARWs from the primary threats caused by commercial fishing and vessel traffic and the additional stressors of climate change, ocean noise, and offshore energy development.

Thank you for your serious consideration of this matter. Oceana looks forward to receiving the CEC Secretariat’s confirmation of receipt of this SEM as well as the response of the U.S. Government. If you have any questions, please do not hesitate to reach out to me at the email address below.

Sincerely,



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<sup>1</sup> Oceana, *Notice Letter to U.S. Government Regarding USMCA Article 24.27 Submission on Enforcement Matters Due to Failures to Effectively Comply with, Implement, or Enforce Environmental Laws* (Aug. 18, 2021) (provided as supporting document).

<sup>2</sup> Oceana, *Comment Letter on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight* (Aug. 30, 2021); Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021); Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021); Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021); Oceana, *Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020); Oceana and IFAW, *Comment Letter on Five Proposed Incidental Harassment Authorizations for Seismic Airgun Blasting* (July 21, 2017) (provided as supporting documents).

<sup>3</sup> *South Carolina Coastal Conservation League et al. v. National Marine Fisheries Service*, Memorandum in Support of Plaintiff’s Motion for a Preliminary Injunction (Feb. 20, 2019) (provided as supporting document).

<sup>4</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf).

October 4, 2021

Page 3

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Reference number and submission name (to be assigned by the Secretariat):

### Submission Form Part I-Identification

#### About this form

This form guides you on how to prepare a Submission on Enforcement Matters (SEM) under Article 24.27 of the new [USMCA/CUSMA](#) Trade Agreement, effective July 1, 2020. The SEM procedures are similar to the procedures contained in the North American Agreement for Environmental Cooperation (NAAEC), but there are some differences of which Submitters should be aware. The NAAEC procedures in Articles 14 and 15 no longer apply to new submissions filed on or after July 1, 2020.

**Important:** If your submission is incomplete, you will receive a determination according to Article 24.27(3) of the Agreement detailing the missing information, in which case, you will need to resubmit your submission. You may use this form again as well.

To prepare your submission, **read carefully the [instructions](#)** on how to fill-out this form. Once completed, send it by email to [sem@cec.org](mailto:sem@cec.org) along with any attachments or links to download them.

You may also send your submission and attachments without using this form via email or to the following postal address:

CEC Secretariat, Legal Affairs and SEM  
700, rue de la Gauchetière, Bureau 1620  
Montreal, Quebec Canada H2R 5M2

You may disclose my personal information. If you are an individual, your email and postal addresses will not be made public.  
 I want my personal information to remain confidential.

Identification of the [Person of a Party](#) filing the submission.

|                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>A. Submitter(s) (individual).</b> Fill this section if you are an individual. If you are an enterprise, use section B.</p> <p>1. Last name:</p> <p>2. First name:</p> <p>3. Citizenship (or country of permanent residency):</p> <p>4. Address:</p> <p>5. Telephone:</p> <p>6. E-mail:</p> | <p><b>B. Submitter(s) (enterprise).</b> Fill this section if you are an enterprise of a Party, including a NGO.</p> <p>7. Name of the entity:<br/><b>Oceana, Inc. (Oceana)</b></p> <p>8. Represented by:<br/><b>Whitney Webber</b><br/><b>Campaign Director, Responsible Fishing</b></p> <p>9. Place of incorporation, date and/or registration number:<br/><b>Oceana, Inc. is a nonprofit organization incorporated under the laws of the District of Columbia on March 1, 2001.</b></p> <p>10. Address:<br/><b>1025 Connecticut Ave., NW, Suite 200</b><br/><b>Washington, DC 20036</b></p> <p>11. Telephone:<br/><b>202-833-3900</b></p> <p>12. E-mail:<br/><a href="mailto:wwebber@oceana.org">wwebber@oceana.org</a></p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

If there are more submitters, [click here](#) to download another Part I form.



## Part II-Representative(s)

If the Submitter(s) has no representative or no leading organization, please go to Part III.

| <b>C. Leading organization. Fill below if the Submission is led by one or more organizations.</b>                                                                     | <b>D. Representative of the Submitter(s). Fill below if you have a legal representative</b>                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>13. Name:</p> <p>14. Represented by:</p> <p>15. Place of Incorporation, date and or registration:</p> <p>16. Address:</p> <p>17. Telephone:</p> <p>18. E-mail:</p> | <p>19. Is the representative also one of the Submitters?<br/><input type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p>20. Last name:</p> <p>21. First name:</p> <p>22. Citizenship (or country of permanent residency):</p> <p>23. Address:</p> <p>24. Telephone:</p> <p>25. E-mail:</p> |

If there is more than one leading organization, [click here](#) to download Part II of this form.

## Part III-Your Submission

**E. Party of Concern.** Please identify the location of the issues and environmental laws raised in your submission. Your submission could address more than one party and its environmental laws.

26. To which Party(s) are you addressing your submission?

- Canada.
- Mexico.
- United States.

## F. Environmental law.

27. The Submitter must identify the applicable provision of the statute or regulation, as defined in [Article 24.1](#) of the Agreement. Prepare a numbered list of the statute(s) or regulation(s) and include the applicable provisions.

1. Marine Mammal Protection Act, 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h, including, but not limited to:
  - a. 16 U.S.C. § 1361
    - i. 16 U.S.C. § 1361(2)
  - b. 16 U.S.C. § 1362
    - i. 16 U.S.C. § 1362(1)
    - ii. 16 U.S.C. § 1362(2)
    - iii. 16 U.S.C. § 1362(9)
    - iv. 16 U.S.C. § 1362(13)
    - v. 16 U.S.C. § 1362(19)
    - vi. 16 U.S.C. § 1362(20)
  - c. 16 U.S.C. § 1371
    - i. 16 U.S.C. § 1371(a)
      1. 16 U.S.C. § 1371(a)(3)(A)
      2. 16 U.S.C. § 1371(a)(5)(A), (D)
      3. 16 U.S.C. § 1371(a)(5)(E)
      4. 16 U.S.C. § 1371(a)(5)(E)(iii)
  - d. 16 U.S.C. § 1373
    - i. 16 U.S.C. § 1373(a)
  - e. 16 U.S.C. § 1375
    - i. 16 U.S.C. § 1375(a)
    - ii. 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021)
    - iii. 16 U.S.C. § 1375(b), as amended by 18 U.S.C. § 3571(b)(5)
  - f. 16 U.S.C. § 1382
    - i. 16 U.S.C. § 1382(a)
    - ii. 16 U.S.C. § 1382(e)
  - g. 16 U.S.C. § 1386
    - i. 16 U.S.C. § 1386(c)(1)(A)
  - h. 16 U.S.C. § 1387
    - i. 16 U.S.C. § 1387(a)(2)
    - ii. 16 U.S.C. § 1387(b)
    - iii. 16 U.S.C. § 1387(c)
      1. 16 U.S.C. § 1387(c)(1)(A)(i)
      2. 16 U.S.C. § 1387(c)(1)(A)(ii)
    - iv. 16 U.S.C. § 1387(f)
      1. 16 U.S.C. § 1387(f)(5)(A)
    - v. 16 U.S.C. § 1387(g)
      1. 16 U.S.C. § 1387(g)(1)(A)
      2. 16 U.S.C. § 1387(g)(3)(B)

- 3. 16 U.S.C. § 1387g(4)
      - i. 16 U.S.C. § 1421h
      - j. 16 U.S.C. 1421c
- 2. Marine Mammal Protection Act Regulations, 50 C.F.R. Ch. II, Subch. C, Parts 215-229, including, but not limited to:
  - a. 50 C.F.R. § 216.11
  - b. 50 C.F.R. § 216.103
  - c. 50 C.F.R. § 216.105
    - i. 50 C.F.R. § 216.105(c)
  - d. 50 C.F.R. § 222.307
    - i. 50 C.F.R. § 222.307(c)(1)
    - ii. 50 C.F.R. § 222.307(c)(2)
    - iii. 50 C.F.R. § 222.307(e)
  - e. 50 C.F.R. § 224.105
    - i. 50 C.F.R. § 224.105(d)
  - f. 50 C.F.R. § 229.9
- 3. Endangered Species Act, 16 U.S.C. §§ 1531 et seq., including, but not limited to:
  - a. 16 U.S.C. § 1531
    - i. 16 U.S.C. § 1531(c)(1)
  - b. 16 U.S.C. § 1532
    - i. 16 U.S.C. § 1532(3)
    - ii. 16 U.S.C. § 1532(5)
    - iii. 16 U.S.C. § 1532(6)
    - iv. 16 U.S.C. § 1532(8)
    - v. 16 U.S.C. § 1532(19)
    - vi. 16 U.S.C. § 1532(20)
  - c. 16 U.S.C. § 1533
    - i. 16 U.S.C. § 1533(a)(3)(A)
    - ii. 16 U.S.C. § 1533(b)
    - iii. 16 U.S.C. § 1533(b)(7)
    - iv. 16 U.S.C. § 1533(d)
    - v. 16 U.S.C. § 1533(f)
  - d. 16 U.S.C. § 1536.
    - i. 16 U.S.C. § 1536(a)
    - ii. 16 U.S.C. § 1536(b)
      - 1. 16 U.S.C. § 1536(b)(3)(A)
      - 2. 16 U.S.C. § 1536(b)(4)
    - iii. 16 U.S.C. § 1536(c)
  - e. 16 U.S.C. § 1538
    - i. 16 U.S.C. § 1538(a)
    - ii. 16 U.S.C. § 1538(a)(1)
    - iii. 16 U.S.C. § 1538(a)(1)(B)
  - f. 16 U.S.C. § 1539
    - i. 15 U.S.C. § 1539(a)(1)(B)
  - g. 16 U.S.C. § 1540
    - i. 16 U.S.C. § 1540(a)(1), as amended by 15 C.F.R. § 6.3(14) (Jan. 15, 2021)
    - ii. 16 U.S.C. § 1540(b)(1)
    - iii. 16 U.S.C. § 1540(f)
- 4. Endangered Species Act Regulations, 50 C.F.R. Ch. I, Subch. B, Part 17; Ch. IV, Subch. A, Parts 402, 424; and Subch. C, Parts 450-543, including, but not limited to:
  - a. 50 C.F.R. § 17.11
  - b. 50 C.F.R. § 402.02
  - c. 50 C.F.R. § 402.14
    - i. 50 C.F.R. § 402.14(g)(2)-(3)
    - ii. 50 C.F.R. § 402.14(g)(8)
    - iii. 50 C.F.R. § 402.14(h)(2)
    - iv. 50 C.F.R. § 402.14(i)
  - d. 50 C.F.R. § 424.20

5. National Environmental Policy Act, 42 U.S.C. §§ 4321-4370m, including, but not limited to:
  - a. 42 U.S.C. § 4331
    - i. 42 U.S.C. § 4331(a)
  - b. 42 U.S.C. § 4332
    - i. 42 U.S.C. § 4332(A)
    - ii. 42 U.S.C. § 4332(C)
6. National Environmental Policy Act Regulations, 40 C.F.R. Ch. V., Subch. A, Parts 1500-1508 (1978 version, as amended in 1986 and 2005), including, but not limited to:
  - a. 40 C.F.R. § 1500.1
    - i. 40 C.F.R. 1500.1(b)
  - b. 40 C.F.R. § 1501.7
  - c. 40 C.F.R. § 1502.1
  - d. 40 C.F.R. § 1502.9
    - i. 40 C.F.R. § 1502.9(c)
  - e. 40 C.F.R. § 1502.14
    - i. 40 C.F.R. § 1502.14(a), (b)
  - f. 40 C.F.R. § 1502.16
    - i. 40 C.F.R. § 1502.16(a), (b)
  - g. 40 C.F.R. § 1506.6
  - h. 40 C.F.R. § 1508
    - i. 40 C.F.R. § 1508.7
    - ii. 40 C.F.R. § 1508.8
    - iii. 40 C.F.R. § 1508.25
7. Coast Guard Authorization Act of 2018, as amended, 14 U.S.C. §§ 101 et seq; 46 U.S.C. § 70001 et seq., including, but not limited to:
  - a. 46 U.S.C. § 70001
    - i. 46 U.S.C. § 70001(a)(1)
  - b. 46 U.S.C. § 70003
    - i. 46 U.S.C. § 70003(a)
  - c. 46 U.S.C. § 70005
    - i. 46 U.S.C. §70005(d)
8. Coast Guard Regulations, 33 C.F.R. Part 169, including, but not limited to:
  - a. 33 C.F.R. §169.100
9. Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331 et seq., including, but not limited to:
  - a. 43 U.S.C. § 1332
  - b. 43 U.S.C. § 1344
    - i. 43 U.S.C. § 1344(a)(2)
    - ii. 43 U.S.C. § 1344(a)(3)
10. Outer Continental Shelf Lands Act Regulations, 30 C.F.R. Ch. II, Subch. B, Parts 250, 251, 254 and Ch. V, Subch. B, Parts 550 and 551
11. Civil Penalties, 15 C.F.R. Part 6, including, but not limited to:
  - a. 15 C.F.R. § 6.3
    - i. 15 C.F.R. § 6.3(14)
  - b. 15 C.F.R. § 6.4
    - i. 15 C.F.R. § 6.4(11)
12. Criminal Penalties
  - a. 18 U.S.C. § 3571(b)
    - i. 18 U.S.C. § 3571(b)(5)
  - b. 18 U.S.C. § 3559(a)(6)

**G. Statement of facts.**

28. Make sure that you make reference to the elements listed in this [checklist](#).

Please ensure that the information you enter in this section does **not exceed the 15-page limit**. Review your text accordingly. Use the space below to include a succinct account of facts. Please number each paragraph for ease of reference. You may use hyperlinks to reference supporting information.

1. Please see attached Statement of Facts.

**H. List of accompanying documents.**

29. Include full and legible copies of documents referred in your submission. Hyperlinks to download the documents are admissible too. Use the space below to list the documents in the order cited in your submission. Do not include statutes or regulations cited in your submission.

1. Please see endnotes following the Statement of Facts.

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**STATEMENT OF FACTS**  
**(Part III.G of Submission Form)**

**USMCA Article 24.27 Submission on Enforcement Matters**

**U.S. Government Failures to Effectively Enforce Environmental Laws  
to Protect Critically Endangered North Atlantic Right Whales**

## **I. EXECUTIVE SUMMARY**

1. North Atlantic right whales (NARWs) have been listed as endangered since the advent of the Endangered Species List in 1970,<sup>1</sup> and protected under the Marine Mammal Protection Act (MMPA) since 1972.<sup>2</sup> The North Atlantic right whale is an ESA-listed marine mammal protected under both the Endangered Species Act (ESA) and the MMPA; the U.S. Government has a concurrent obligation to effectively comply with, implement, and enforce the requirements of both laws, among others. Since at least 1995, the U.S. Government has acknowledged that human-caused activity – from fishing gear entanglement and vessel strikes – are the principal human-caused sources of NARW mortality and serious injury.<sup>3</sup> Other human activities recognized by the U.S. Government as limiting NARW recovery include climate change, ocean noise, and offshore energy development.<sup>4</sup>
2. Because of the U.S. Government’s long-standing failure to effectively comply with, implement, or enforce existing environmental laws and regulations, fishing gear entanglements of NARWs continue in the U.S. Atlantic. Fatal NARW interactions with vessels are occurring at unacceptable rates and show that enforcement of environmental laws and regulations to control vessel traffic in the U.S. Atlantic is lacking. In just the last decade, the Fisheries Service reported that 218 North Atlantic right whales have likely succumbed to fishing gear entanglement and vessel strikes – approximately 24 whale deaths per year.<sup>5</sup> Worse yet, observed deaths of NARWs are a fraction of actual deaths,<sup>6</sup> and even if death is not the result, the sub-lethal effects of entanglements can stunt NARW growth and reduce reproductive success.<sup>7</sup>
3. Additional stressors to NARWs, which the U.S. Government must mitigate under environmental law to protect the species, include climate change, ocean noise, and offshore energy development. Climate change is impacting the abundance and distribution of zooplankton species, including the prey of NARWs, the calanoid copepod (*Calanus finmarchicus*).<sup>8</sup> Even a moderate change in NARW prey can negatively impact NARW fitness.<sup>9</sup> Since at least 2011, NARWs are venturing into new areas in search of food, increasing the risks of fishing gear entanglement and vessel strike as NARWs move into areas without protections in search of prey.<sup>10</sup>
4. Ocean noise, such as from shipping<sup>11</sup> and offshore energy development (e.g., seismic airgun blasting to explore for offshore oil and gas),<sup>12</sup> is a source of chronic stress for this critically endangered species, resulting in displacement from habitat, communication masking, and vocalization changes. Rather than implementing effective measures to abate ocean noise and reduce stress to the species, in recent years, the U.S. Government has gone so far as to proactively permit seismic airgun blasting – one of the loudest noises in the ocean – in search of oil and gas in the NARWs’ habitat along the Atlantic coast.<sup>13</sup> Fortunately for NARWs and other marine species, Oceana and our coalition partners successfully delayed these efforts via litigation until the permits expired unused.
5. Offshore energy development is rapidly expanding along the U.S. Atlantic coast in many of the same areas where NARWs feed, breed, calve, and migrate. If not responsibly sited, built, operated, and decommissioned to consider, avoid, minimize and mitigate effects to NARWs, the expansion of offshore energy poses not only an additional source of stress from ocean noise and disruption of habitats, but also threats of mortality and serious injury from entanglement and vessel strikes.<sup>14</sup> If multiple offshore energy projects proceed in haste in areas where NARWs are known to frequent with insufficient government efforts to apply precautionary approaches prescribed by law to reduce environmental impacts and enforce mitigation measures, the cumulative effect on NARWs – due to increased ocean noise, potential shifts in currents and prey, and vessel strikes – could be disastrous.
6. As outlined below, the U.S. Government’s failures to effectively enforce national environmental laws and regulations include:

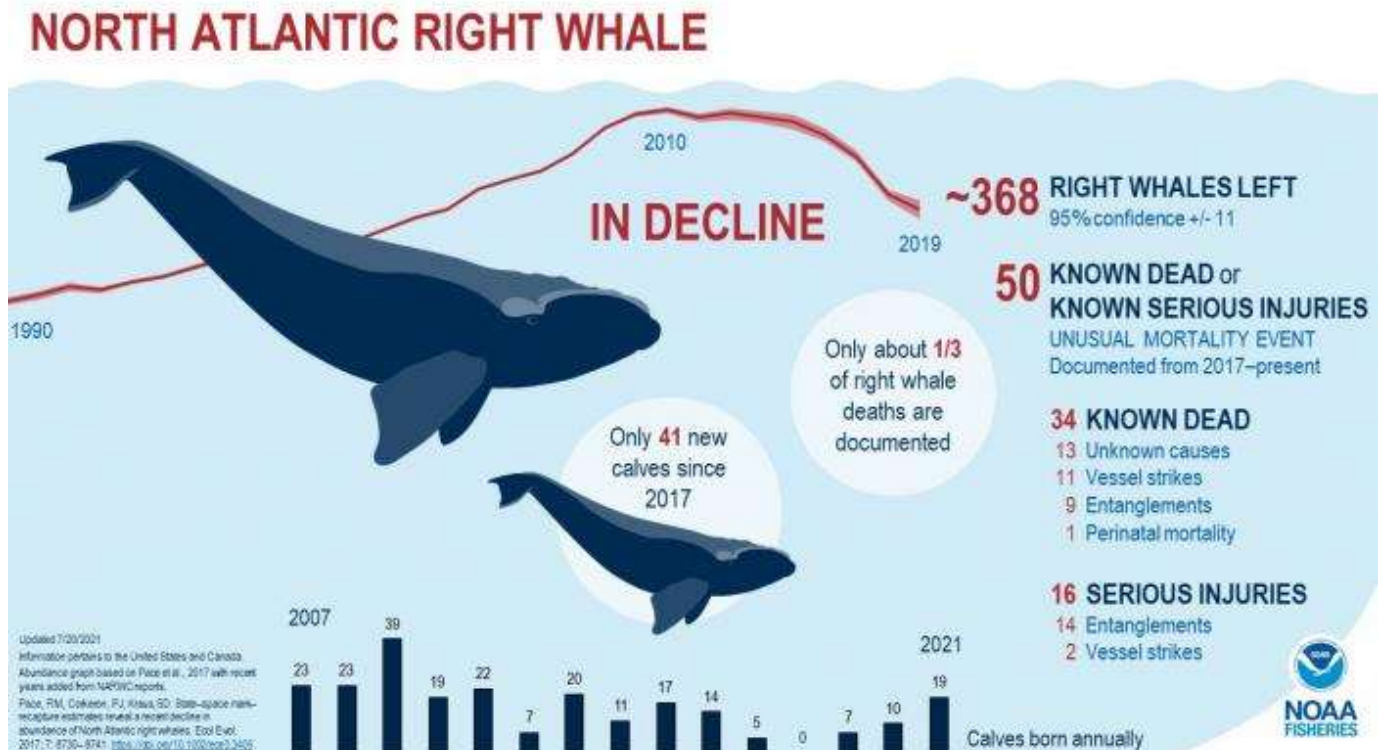


7. Fishing Gear Entanglement: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Fishing Gear Entanglement:
- The Proposed and Final Fishing Gear Entanglement Risk Reduction Rule Demonstrate the U.S. Government’s Failure to Effectively Enforce the MMPA and the ESA;
  - The Draft and Final Environmental Impact Statements Demonstrate the U.S. Government’s Failure to Effectively Enforce the National Environmental Policy Act (NEPA);
  - The Final Biological Opinion (BiOp) Demonstrates the U.S. Government’s Failure to Effectively Enforce the ESA;
  - General Failure of the U.S. Government to Effectively Enforce ESA Section 10 Requiring Incidental Take Permits for State Fisheries that Interact with Threatened or Endangered Species;
  - General Failure of the U.S. Government to Effectively Enforce the Marine Mammal Authorization Program for Commercial Fisheries, Especially for Threatened or Endangered Marine Mammal Species Under the MMPA;
  - General Failure of the U.S. Government to Effectively Enforce Commercial Fishing Violations Under the MMPA or the ESA Related to North Atlantic Right Whales;
8. Vessel Strikes: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Vessel Strikes:
- General Failure of the U.S. Government to Effectively Enforce the Coast Guard Authorization Act, the MMPA, the ESA, and NEPA to Protect North Atlantic Right Whales from Vessel Traffic;
  - General Failure of the U.S. Government to Effectively Enforce the 2008 Vessel Speed Rule Under the MMPA to Protect North Atlantic Right Whales;
  - General Failure of the U.S. Government to Effectively Enforce Vessel Speed Violations Under the MMPA or ESA To Protect North Atlantic Right Whales; and
9. Additional Threats to North Atlantic Right Whales: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Additional Threats – Climate Change, Ocean Noise, and Offshore Energy Development.

**II. THE NORTH AMERICAN RIGHT WHALE, A PROTECTED SPECIES, IS SUFFERING HARM FROM THE UNITED STATES’ FAILURE TO EFFECTIVELY ENFORCE APPLICABLE ENVIRONMENTAL LAWS**

10. As discussed in more detail in Oceana’s August 18 Notice Letter to the U.S. Government,<sup>15</sup> NARWs are large, baleen whales found primarily in the Atlantic along the east coast of Canada and the United States.<sup>16</sup> Once abundant with a population range between 9,000 to 21,000 animals,<sup>17</sup> the NARW is currently one of the most endangered large whales on the planet.<sup>18</sup> North Atlantic right whales have been listed as endangered since the advent of the Endangered Species List in 1970,<sup>19</sup> and protected under the MMPA since 1972.<sup>20</sup> In July 2020, the International Union for Conservation of Nature (IUCN) updated the status of the species to “critically endangered” on its often-cited Red List of Threatened Species.<sup>21</sup> Today, only around 360 NARWs remain, with fewer than 80 breeding females.<sup>22</sup>
11. In 2017, the Fisheries Service declared an Unusual Mortality Event (UME) for the NARW, due to the number of deaths.<sup>23</sup> The issuance of a UME demands an immediate response and requires additional federal resources to be devoted to determining and mitigating the source of excessive mortality.<sup>24</sup> Despite the UME, as of September 30,

2021, a total of 50 whales have been found dead or seriously injured since 2017 (34 known dead / 16 serious injuries). And, this is not the full extent of deaths as only about a third of NARW deaths are documented.<sup>25</sup> These NARW mortalities and serious injuries are most often attributed to fishing gear entanglements or vessel strikes.<sup>26</sup> Even so, since the Fisheries Service declared the UME in 2017, no changes to the regulatory regimes for fishing or vessel traffic have been implemented as of yet.<sup>27</sup>



Source: National Marine Fisheries Service<sup>28</sup>

12. Recent studies as well as the U.S. Government’s own projections suggest that, without aggressive and immediate recovery actions, NARWs could become extinct in the near future.<sup>29</sup> Immediate government action is needed to address human-caused threats to the species, especially fishing gear entanglement and vessel strikes; other threats and stressors to the species from climate change, ocean noise, and offshore energy development should also be mitigated.
13. The harm to NARWs, resulting from the U.S. Government’s failure to effectively enforce its environmental laws and regulations, is dire. If U.S. Government inaction continues, the impacts to the remaining North Atlantic right whales will make recovery of the species exceedingly difficult and may lead to the first extinction of a large whale species in the Atlantic in modern times.

### III. UNITED STATES’ FAILURES TO ENFORCE ENVIRONMENTAL LAWS TO PROTECT THE NORTH ATLANTIC RIGHT WHALE

14. Oceana’s assertions regarding the United States’ failure to effectively enforce its environmental laws are outlined below; for additional details, Oceana incorporates by reference all claims laid out in its August 18 Notice Letter to the U.S. Government, including claims cross-referenced in Oceana’s comment letters and other supporting

documents – all are listed in the endnotes that follow the Statement of Facts, which serves as the list of “accompanying documents” for purposes of Part III.H of the Submission Form. All laws and regulations discussed in this submission, listed herein and at Part III.F meet the definition of “environmental law” in Chapter 24 (Environment) of the USMCA.<sup>30</sup>

**A. Fishing Gear Entanglement: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Fishing Gear Entanglement (16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)**

15. Under the MMPA,<sup>31</sup> the ESA,<sup>32</sup> and NEPA<sup>33</sup> as well as the related regulations, the Fisheries Service *is required* to implement measures, including interim emergency measures,<sup>34</sup> to reduce NARW entanglements with fishing gear if it is determined that these interactions exceed acceptable levels (i.e., Potential Biological Removal Level (PBR) of 0.8).<sup>35</sup> Under the law, the Fisheries Service must implement measures such that *less than one* NARW may be killed or seriously injured due to human impacts each year; however, this level has been exceeded every year since at least 2000; thus, the agency has failed – *for at least 20 years* – to effectively enforce environmental laws.<sup>36</sup> The Fisheries Service acknowledges that commercial fishing interactions with NARWs have been excessive since at least 2016.<sup>37</sup> But in all this time, the agency has failed to act in a timely manner as required under environmental law to modify existing regulations to adequately protect NARWs. In addition to significant delays, the meager agency actions taken thus far show that the Fisheries Service has not been and is not effectively enforcing environmental laws and regulations to adequately protect NARWs from fishing gear entanglement. As detailed below, the Final Risk Reduction Rule, the Final Environmental Impact Statement (EIS), and the Final Biological Opinion (BiOp) fail to provide the immediate protections needed and required by law.

**1. The Proposed and Final Fishing Gear Entanglement Risk Reduction Rule Demonstrate the U.S. Government’s Failure to Effectively Enforce the MMPA and the ESA (16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453)**

16. The Fisheries Service recently concluded a regulatory process, which fails to adequately implement the requirements of the MMPA and the ESA as well as the related regulations to protect NARWs.<sup>38</sup> As detailed in Oceana’s August 18 Notice Letter to the U.S. Government and our comment letter on the Proposed Risk Reduction Rule and Draft EIS, the agency’s proposal to address NARW fishing gear entanglement is severely lacking and demonstrates the Fisheries Service’s utter failure to effectively comply with, implement, or enforce the MMPA and the ESA.<sup>39</sup> On September 17, 2021, the agency issued the Final Risk Reduction Rule, with very little changes from what had been initially proposed.<sup>40</sup> The Final Risk Reduction Rule is not based on best available science and is focused on a low risk reduction goal of merely 60% based on economic factors – in contradiction of MMPA requirements.<sup>41</sup> Moreover, the Final Risk Reduction Rule focused on economic impacts to the fishery as opposed to a higher risk reduction goal that would focus – as is required by the MMPA and ESA – on protection of the endangered marine mammal species.<sup>42</sup> Worse yet, the Fisheries Service’s proposed measures rely heavily on an *untested theory* that weak rope inserts will allow NARWs to break free – provided they are able to exert 1700 lbs. of force, which may not be feasible for smaller whales, including juveniles.<sup>43</sup> The agency openly recognizes the lack of best available science to support weak rope by referring to this unproven measure as a “theory.”<sup>44</sup>

17. The continued delay in agency action to adequately protect NARWs is itself a failure to effectively comply with, implement, or enforce the law. The MMPA mandated a Zero Mortality Rate Goal for all marine mammals by April 2001; this mandate has not been met for NARWs, much less other marine mammals.<sup>45</sup> In addition, the MMPA requires the agency to lower NARW mortalities and serious injury below the PBR level of 0.8 *within six months* of implementation of the new rule – *regardless of economic impacts*.<sup>46</sup> The Fisheries Service *fully admits*, however, that the Final Risk Reduction Rule will not comply with these requirements of the MMPA to protect NARWs until perhaps 2030, if then.<sup>47</sup>
18. In addition, under the MMPA, the Fisheries Service *is required* to create interim emergency regulations to reduce entanglements with fishing gear if it is determined that these interactions exceed acceptable levels.<sup>48</sup> The Fisheries Service acknowledges that commercial fishing interactions with NARWs have been excessive since at least 2016.<sup>49</sup> But in all this time, the agency has failed to act in a timely manner as required under environmental law to modify existing regulations to adequately protect NARWs. The Final Risk Reduction Rule will not provide the immediate protections needed and required by law, thereby demonstrating that the Fisheries Service is not effectively complying with, implementing, or enforcing the MMPA or the ESA (requirements of which are discussed in more detail in Section A.3 below).

**2. The Draft and Final Environmental Impact Statements Demonstrate the U.S. Government’s Failure to Effectively Enforce NEPA (42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508 (1978 Version, as amended in 1986 and 2005))**

19. NEPA requires that the Fisheries Service undertake a NEPA review to assess the environmental impacts of its proposed rulemakings. As discussed in Oceana’s August 18 Notice Letter to the U.S. Government and Oceana’s March 1, 2021 comment letter on the Proposed Risk Reduction Rule and Draft EIS, the Fisheries Service failed to effectively comply with, implement, or enforce NEPA during development of the Draft EIS; the same holds true for the Final EIS.<sup>50</sup> By failing to consider a reasonable range of alternatives<sup>51</sup> and providing justifications based on arbitrary notions of stakeholder popularity rather than effectiveness,<sup>52</sup> the agency has failed to effectively comply with, implement, or enforce its obligation under NEPA to take a “hard look” at the public comments and the impacts of its actions.<sup>53</sup> The Fisheries Service also failed to effectively enforce NEPA when it seemingly ignored the majority of written comments and instead concocted the minimalist suite of measures for protecting NARWs by using measures agreed upon by the fishing industry and state governments in closed door meetings.<sup>54</sup> Alarming, the agency utterly failed to consider cumulative impacts of all human activities on NARWs in the Draft and Final EIS as required by NEPA.<sup>55</sup> In addition, neither the Draft or Final EIS nor the Proposed or Final Risk Reduction Rule are based on “best available science,” as required by NEPA<sup>56</sup> as well as the ESA and the MMPA;<sup>57</sup> this failing occurred in relation to several important scientific factors, including NARW population data, mortality and serious injury data, the number and location of buoy lines in the water, the decision support tool, and the co-occurrence model.<sup>58</sup> In his expert statement, which was submitted with Oceana’s March 1, 2021 comment letter, Dr. Sean Brilliant of the Dalhousie University Department of Oceanography notes the Fisheries Service’s failure to account for uncertainty inherent in the decision support tool – the tool which forms the foundation underlying the entire Proposed and Final Risk Reduction Rule.<sup>59</sup>

**3. The Final Biological Opinion (BiOp) Demonstrates the U.S. Government’s Failure to Effectively Enforce the ESA and the MMPA (16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229)**

20. Under the ESA, the Fisheries Service is required to determine whether proposed activity will jeopardize the continued existence of the species and to identify measures to mitigate the effects of the activity on the species.<sup>60</sup> Concurrent with the development of the Proposed Risk Reduction Rule, the Fisheries Service developed a new BiOp for the American lobster and Jonah crab fisheries as well as several other “batched” fisheries and a New England Fishery Management Council essential fish habitat amendment. The Fisheries Service solicited public comment on the Draft BiOp as of January 15, 2021.<sup>61</sup> Oceana submitted comments on the Draft BiOp by the deadline of February 19, 2021, noting, in no uncertain terms, the agency’s many failures to effectively comply with, implement, or enforce the ESA and MMPA to protect NARWs.<sup>62</sup> On May 27, 2021, a few days prior to the date required by a court order, the Fisheries Service issued the Final BiOp.<sup>63</sup>
21. One of the most egregious aspects of the Final BiOp is the agency’s admission, in the appended NARW Conservation Framework (see table excerpted at pages 17-18 of Oceana’s August 18 Notice Letter to the U.S. Government), that “previous efforts have not reduced entanglements to the degree needed to satisfy ESA and MMPA requirements, and additional efforts are necessary to recover this critically endangered species.”<sup>64</sup> This admission is then immediately followed by the agency’s wholly inadequate plan to address these shortcomings by only reducing NARW mortality and serious injury from fishing gear entanglement by 60% over the course of *the next 10 years*.<sup>65</sup>
22. Based on the goal of achieving a PBR level of 0.8 under the MMPA<sup>66</sup> and an annual lethal take of zero set under the ESA,<sup>67</sup> the NARW Conservation Framework indicates that on *day one*, the lobster and crab fisheries will exceed their authorized ESA lethal take by 2.69, and the MMPA PBR by 1.9.<sup>68</sup> This approach is inconsistent with the requirements in both the ESA<sup>69</sup> and the MMPA.<sup>70</sup> The Final BiOp constitutes a complete failure to effectively comply with, implement, or enforce the ESA and MMPA. The agency must specify measures that will adequately and effectively reduce fishing gear entanglement risks to NARWs *now – not 10 years from now*.<sup>71</sup> Both the Draft and Final BiOp incorporated the NARW Conservation Framework into the analysis, resulting in the brazen admission that the MMPA requirement to reduce “take” to below PBR *within six months* will not be met until at least 2030.<sup>72</sup>
23. Additional failures to effectively comply with, implement, or enforce environmental law, here, the ESA, with respect to the Draft and Final BiOp are discussed in Oceana’s August 18 Notice Letter to the U.S. Government and our comment letter on the Draft BiOp,<sup>73</sup> including the erroneous “no jeopardy” determination,<sup>74</sup> the alarming number of lethal and sub-lethal takes authorized in the Incidental Take Statement,<sup>75</sup> the lacking Reasonable and Prudent Measures (RPMs) and the related Terms and Conditions (T&Cs),<sup>76</sup> and the agency’s failure to use “best scientific and commercial data available.”<sup>77</sup>

**4. General Failure of the U.S. Government to Effectively Enforce ESA Section 10 Requiring Incidental Take Permits for State Fisheries that Interact with Threatened or Endangered Species (16 U.S.C. § 1539; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)**

24. State fisheries should request incidental take permits from the Fisheries Service under ESA Section 10 when the state fisheries would interact with threatened or endangered species.<sup>78</sup> The Fisheries Service has not effectively enforced this requirement of the ESA. For example, as of April 5, 2021, only two North Carolina fisheries and one

Georgia fishery have obtained incidental take permits under ESA Section 10.<sup>79</sup> None of these state fishery incidental take permits are for “take” of NARWs – only Atlantic sturgeon and sea turtles. A U.S. court recently required the state of Massachusetts to apply for and obtain an incidental take permit for state fisheries interacting with NARWs, so Massachusetts is now implementing stronger measures to protect NARWs in order to meet the requirements of ESA Section 10.<sup>80</sup> A larger number of state-managed fisheries likely interact with threatened or endangered species, including NARWs, and yet the Fisheries Service has not even implemented much less effectively enforced this important ESA requirement.

**5. General Failure of the U.S. Government to Effectively Enforce the Marine Mammal Authorization Program for Commercial Fisheries, Especially for Threatened or Endangered Marine Mammal Species Under the MMPA** (16 U.S.C. § 1387; 16 U.S.C. § 1371(a)(5)(E); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)

25. The Fisheries Service must ensure commercial fisheries are categorized (as Category I, II, or III) in the MMPA List of Fisheries.<sup>81</sup> Fisheries listed in Category I<sup>82</sup> or Category II<sup>83</sup> must apply for and receive a permit from the Fisheries Service, and U.S. flagged fishing vessels must register with the Fisheries Service and display a valid authorization decal.<sup>84</sup>

26. If the commercial fishery interacts with threatened or endangered marine mammal species, then an additional step is required:<sup>85</sup> commercial fisheries must receive an Incidental Take Authorization (valid for 3 years) via a Fisheries Service determination, which is subject to public notice and comment, that:

- the incidental mortality and serious injury from the commercial fishery will have a negligible impact on the species or stock;<sup>86</sup>
- a recovery plan has been developed or is being developed; and
- if required, a monitoring program has been established and a Take Reduction Plan is developed.<sup>87</sup>

27. The Fisheries Service must then publish a *separate* list of fisheries that have received Incidental Take Authorizations for the take of threatened or endangered marine mammal species. Any incidental take of marine mammals by commercial fisheries, therefore, is illegal without the publication of an MMPA 101(a)(5)(E) list and the accompanying determinations described above. The Fisheries Service has utterly failed to effectively comply with, implement, or enforce these provisions of the MMPA for NARWs as well as many other threatened or endangered marine mammal species.<sup>88</sup>

**6. General Failure of the U.S. Government to Effectively Enforce Commercial Fishing Requirements Under the MMPA or ESA Related to North Atlantic Right Whales** (16 U.S.C. § 1540(a)(1), as updated by 15 C.F.R. § 6.3(14) (Jan. 15, 2021); 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453)

28. As noted in Oceana’s August 18 Notice Letter to the U.S. Government,<sup>89</sup> based on government records of civil administrative enforcement actions since March 2010, U.S. Government enforcement of commercial fishing operations in the Atlantic to protect North Atlantic right whales appears to have been completely lacking.<sup>90</sup> Not one civil administrative enforcement actions related to commercial fishing to protect NARWs is noted in these

government records.<sup>91</sup> As commercial fisheries on the East Coast are operating without the incidental take authorizations for NARWs required under the MMPA and the ESA (discussed above), no takes of NARWs are allowed, but the Fisheries Service clearly admits that NARW takes are occurring as the agency is closely tracking NARW takes in conjunction with the UME.<sup>92</sup> There are many fishing gear entanglements and yet there do not appear to be any civil administrative enforcement actions related to fisheries and NARWs in the last 11 years. This complete lack of enforcement is a failure on the part of the Fisheries Service, NOAA Office of Law Enforcement, NOAA Office of General Counsel, and the U.S. Coast Guard to effectively comply with, implement, and enforce commercial fishing violations under the MMPA or ESA to protect NARWs.<sup>93</sup>

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29. As the foregoing demonstrates, the MMPA, the ESA, and NEPA, as well as the regulations promulgated under these statutes, have not been effectively complied with, implemented, or enforced by the U.S. Government to protect NARWs from entanglement in fishing gear. Every “take” of a NARW in commercial fisheries is a violation of environmental law; yet, these violations often go unenforced by the U.S. Government. Furthermore, the lengthy delay in promulgating and implementing measures to reduce fishing gear entanglement – *over the course of another 10 years*, is, in and of itself, a failure to effectively enforce environmental law.

**B. Vessel Strikes: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Vessel Strikes (14 U.S.C. § 101 et seq; 46 U.S.C. § 70001 et seq.; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)**

30. In addition to the legal requirements discussed above relating to the protection of the NARW from fishing gear entanglement due to commercial fishing, the species must also be protected as required by environmental law from yet another major threat – vessel strikes. As discussed in Oceana’s August 18 Notice Letter to the U.S. Government, in several comment letters, and in Oceana’s July 2021 Report, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales*,<sup>94</sup> the U.S. Government has failed to effectively enforce environmental laws to protect NARWs from vessel strikes in several ways (outlined below).

**1. General Failure of the U.S. Government to Effectively Enforce the Coast Guard Authorization Act, the MMPA, the ESA, and NEPA to Protect North Atlantic Right Whales from Vessel Traffic (14 U.S.C. §§ 101 et seq; 46 U.S.C. § 70001 et seq.; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)**

31. As the U.S. Coast Guard considers modifications to the vessel traffic for areas on the Atlantic via Port Access Route Studies (PARS), it is critical that the assessment include a robust exploration of the effect of any action on migrating North Atlantic right whales. Recent notices for PARS development do not include adequate review and analysis of living marine resources or protected species, such as NARWs, which is a clear failure to effectively enforce several environmental laws, including the Coast Guard Authorization Act, the MMPA, the ESA, and NEPA.<sup>95</sup> Examples include the PARS for the Seacoast of New Jersey, including offshore approaches to the Delaware Bay<sup>96</sup> and the PARS for the Northern New York Bight.<sup>97</sup>

**2. General Failure of the U.S. Government to Effectively Enforce the 2008 Vessel Speed Rule Under the MMPA and the ESA to Protect North Atlantic Right Whales**  
(50 C.F.R. § 224.105; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453)

32. Since 2008 the Fisheries Service, NOAA Office of Law Enforcement, and NOAA Office of General Counsel, in coordination with the U.S. Coast Guard, has required ships to limit their speeds in certain areas of the Atlantic to reduce the likelihood of deaths and serious injuries to endangered NARWs that result from vessel strikes.<sup>98</sup> The rationale behind this approach is that reduced speeds below 10 knots have been shown to reduce risk of death from vessel strike by up to 86%.<sup>99</sup>
33. The 2013 update to the Vessel Strike Rule removed the sunset provision, and the Fisheries Service included a requirement in the regulations for the agency to conduct a review of the efficacy of existing regulations to minimize collisions with large whales in the U.S. Atlantic no later than January 1, 2019.<sup>100</sup> This required report was apparently not completed in June 2020 and was only published for public comment in January 2021, *two years* after it was required under the rule.<sup>101</sup> This delay alone is a failure to effectively enforce environmental law.
34. In the NARW Vessel Speed Rule Assessment prepared by the Fisheries Service and issued in January 2021, the agency notes that vessel traffic on the U.S. East Coast is extensive and overlaps substantially with important NARW habitats.<sup>102</sup> The Fisheries Service admitted that NARW vessel speed restrictions have not been adequately heeded by vessels transiting mandatory and voluntary speed restriction zones,<sup>103</sup> nor has the government effectively enforced the speed limits, as compliance rates are well below what is needed to protect NARWs.<sup>104</sup> The U.S. Government also acknowledged that the speed zones need to be modified to track changes in NARW distribution and vessel traffic patterns and that smaller vessels (less than 65 feet in length), which are not currently covered by the 2008 Vessel Speed Rule, pose a significant threat to NARWs.<sup>105</sup>
35. Oceana submitted extensive comments on the NARW Vessel Speed Rule Assessment on March 26, 2021.<sup>106</sup> In our comments, Oceana urged the Fisheries Service to promulgate interim, emergency regulations to immediately implement recommendations, including making any voluntary actions (e.g., compliance with Dynamic Management Areas (DMAs) mandatory, immediately establishing new interim Seasonal Management Areas (SMAs) demonstrated to be important to NARWs (e.g., south of Nantucket/Martha’s Vineyard), extending the speed limit to at least vessels in the 40- to 65-foot range, and narrowing the blanket exemption from the Vessel Speed Rule for federal agencies.<sup>107</sup>
36. Oceana has completed and published analyses showing that neither SMAs nor DMAs are effectively enforced; vessels routinely exceed the 10-knot speed limit. For example, from January 22, 2020 to March 6, 2020, Oceana evaluated voluntary compliance with a DMA established by the Fisheries Service to protect an aggregation of NARWs south of Nantucket and Martha’s Vineyard—an area that has contained up to 60 NARWs in recent months.<sup>108</sup> Oceana’s analysis found that more than 41% of the 446 ships in the area exceeded the voluntary speed limit of 10 knots.<sup>109</sup>
37. Oceana’s July 2021 Report demonstrates wide-spread lack of vessel compliance with SMAs and lack of cooperation with DMAs. Using Global Fishing Watch mapping platform from 2017-2020, Oceana calculated compliance in DMAs based on region rather than season. Oceana calculated the rate of non-compliance of vessels by dividing vessel Maritime Mobile Service Identity (MMSI)<sup>110</sup> data by the total number of signals sent during transit through a speed restriction zone. Oceana used data for the SMA seasons from November 2017 to July 2020. DMA data was



calculated based on the same study period but adjusted based on when management areas were active. In all DMAs from 2017-2020, Oceana found only one management area where more than 50% of vessels traveled less than 10 knots. Across all DMAs, vessel non-cooperation exceeded nearly 50% during the study period, with more than 80% of vessels traveling through DMAs in the Southern States region violating speeding restrictions. SMA non-compliance ranged from 32.7% to 89.6% over all three seasons, with the SMA from Wilmington, North Carolina to Brunswick over 85% non-compliant in each season. Cargo vessels were the most consistent offenders, with non-compliance percentages ranging between 46% and 50%. Oceana’s analysis clearly demonstrates that speeding vessels are an imminent, continued threat to the North Atlantic right whale.<sup>111</sup> Oceana’s July 2021 Report recommends that the Fisheries Service and U.S. Coast Guard update the outdated and ineffective 2008 Vessel Speed Rule as follows:

- Expand and establish new SMAs;
- Make compliance with DMAs mandatory and require compliance in all reactive speed zones;
- Expand the Vessel Speed Rule to include vessels under 65 feet in length;
- Expand AIS requirements to include vessels under 65 feet in length and require continuous use of AIS;
- Improve compliance and enforcement of the mandatory speed limit; and
- Narrow the federal agencies’ exemptions.<sup>112</sup>

38. Scientists began reporting NARW distributions shifts in 2011.<sup>113</sup> *More than 10 years later*, the Fisheries Service has *still* not updated the 2008 Vessel Speed Rule to account for the shifts in NARW location and aggregations due to warming waters and the shift of its prey species. Despite admissions and acknowledgements in the NARW Vessel Speed Rule Assessment of the shortcomings in compliance, cooperation, and enforcement of the 2008 Vessel Speed Rule, the Fisheries Service only recently stated that it may begin to consider regulatory action to reduce the risk of vessel strikes in Spring 2022.<sup>114</sup> In April 2021, however, the Fisheries Service spokesperson stated: “Reducing the risk of vessel strikes to right whales remains an agency priority, but we have no set timeline for regulatory action at this time.”<sup>115</sup> In light of the existential crisis that NARWs face, Oceana maintains that the relevant U.S. Government federal agencies and sub-agencies or offices have failed to effectively comply with, implement or enforce environmental laws to protect NARWs from vessel strikes as required under the MMPA and ESA and related regulations.<sup>116</sup>

### **3. General Failure of the U.S. Government to Effectively Enforce Vessel Speed**

#### **Violations Under the MMPA or ESA To Protect North Atlantic Right Whales (16**

U.S.C. § 1540(a)(1), as updated by 15 C.F.R. § 6.3(14) (Jan. 15, 2021); 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021); 16 U.S.C. § 1540(b)(1); 16 U.S.C. § 1375(b), as amended by 18 U.S.C. § 3571(b)(5)); 50 C.F.R. § 224.105; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453)

39. Based on government records of civil administrative enforcement actions since March 2010, U.S. Government enforcement of the 2008 Vessel Speed Rule in the Atlantic to protect North Atlantic right whales has been lacking at best. Over the past 11 years, civil penalty records indicate that, during multiple timeframes, there were apparently no *new* government enforcement actions:

- January-June 2020
- July-December 2018
- July-December 2017

- 2016 – no government enforcement actions
  - July-December 2016
  - January-June 2016
- July-December 2015
- January-June 2011
- March-July 2010<sup>117</sup>

40. With the exception of 2013 and 2014, with 13 and 17 enforcement actions respectively, the U.S. Government – collectively, the Fisheries Service, NOAA Office of Law Enforcement, NOAA Office of General Counsel, and the U.S. Coast Guard have prosecuted less than 10 civil administrative enforcement actions in any year since 2010. Shockingly, there were no such civil administrative enforcement actions whatsoever in 2016.<sup>118</sup>

41. In terms of deterrence through penalty amounts, under current federal laws, speed violations in a mandatory speed zone can result in a civil penalty of up to approximately \$54,000 for each violation, and criminal penalties potentially up to \$200,000, imprisonment for up to a year, or both, depending on the violations.<sup>119</sup> Based on government records of civil administrative enforcement actions since March 2010, the highest civil penalties that vessel owners or operators have been charged in relation to a violation of the 2008 Vessel Speed Rule to protect North Atlantic right whale includes a recent settlement in 2021 for \$288,000. Prior to this, the highest settlement amount for a violation of the vessel speed rule was \$124,200 in 2013. Generally, however, the very few civil administrative penalties charged are less than \$20,000.<sup>120</sup> These penalties are insufficient to deter violations of the 2008 Vessel Speed Rule. Moreover, the lack of effective enforcement is a significant failure on the part of the Fisheries Service, NOAA Office of Law Enforcement, NOAA Office of General Counsel, and the U.S. Coast Guard to effectively comply with, implement, and enforce vessel strike violations under the MMPA and ESA to protect NARWs.<sup>121</sup>

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42. As the foregoing demonstrates, the ESA, the MMPA, NEPA, and the Coast Guard Authorization Act, as well as the regulations promulgated under these statutes, have not been effectively complied with, implemented, or enforced by the U.S. Government to protect NARWs from vessel strikes. Every “take” of a NARW by vessel strike is a violation of environmental law; yet, these violations often go unenforced by the U.S. Government. Furthermore, the lengthy delay in revising the 2008 Vessel Speed Rule is, in and of itself, a failure to effectively enforce environmental law.

**C. Additional Threats to North Atlantic Right Whales: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Additional Threats – Climate Change, Ocean Noise, and Offshore Energy Development**

43. As discussed in greater detail in Oceana’s August 18 Notice Letter to the U.S. Government, while fishing gear entanglement and vessel strikes are the greatest threats to NARWs, climate change, ocean noise, and offshore energy development are additional stressors that need to be addressed under existing environmental laws.<sup>122</sup> The U.S. Government, however, is not effectively enforcing environmental laws to address these stressors. For example, both the MMPA and the ESA provide broad rulemaking authority that would allow for creative solutions;<sup>123</sup> yet, the relevant government agencies have failed to invoke these helpful provisions of the law to address the additional stressors for NARWs.

**1. Climate Change: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from the Impacts of Climate Change** (16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)

44. The U.S. Government has delayed action to mitigate climate change far too long under leadership that has either failed to address or worse yet, actively denied the reality of climate change – to the detriment of all life on the planet, including NARWs.<sup>124</sup> Immediate action is needed to curb ocean warming that has prompted, since at least 2010, a significant shift in the distribution of zooplankton on which the NARWs depend for food.<sup>125</sup> As the Intergovernmental Panel on Climate Change’s recent Sixth Assessment Report makes abundantly clear, human activities are responsible for climate change impacts, including the warming, acidification and rise of our oceans – to the detriment of marines species and coastal communities.<sup>126</sup> The U.S. Government must take action immediately to mitigate as well as to adapt to climate change, including for the benefit of NARWs.<sup>127</sup> Delaying action to protect this critically endangered species from the additional stressor of climate change arguably constitutes “take” in violation of the MMPA and ESA as well as a failure to effectively enforce the MMPA, the ESA, NEPA and the related regulations.<sup>128</sup>

**2. Ocean Noise: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Ocean Noise (e.g., Seismic Airgun Blasting for Offshore Oil and Gas Exploration, Vessel Activity)** (16 U.S.C. § 1371(a)(5)(A), (D); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)

45. As to ocean noise, in November 2018, *two years after* the U.S. Government recognized the dire straits of NARWs, the Fisheries Service granted incidental harassment authorizations to five survey companies under the MMPA for seismic airgun blasting to explore for offshore oil and gas in the migratory waterways and near the critical habitat of NARWs in the Atlantic.<sup>129</sup> Seismic surveying was only thwarted due to the efforts of Oceana and other environmental NGOs taking action both in the court of law and in the court of public opinion to stop the U.S. Government from moving forward with permits.<sup>130</sup> Issuance of the incidental harassment authorizations in areas in/around key NARW critical habitat and migratory pathways not only demonstrates the Fisheries Service’s failure to effectively comply with, implement, or enforce environmental laws to protect NARWs from ocean noise but also shows the nature of this “captured” agency’s willingness to put the economic interests of industry over protections for endangered species – in contradiction of the statutory requirements.<sup>131</sup> The ESA, however, was enacted to “halt and reverse the trend toward species extinction, whatever the cost.”<sup>132</sup>

46. High levels of vessel activity can also cause noise in the ocean that is disruptive and/or stressful to NARWs. Relevant U.S. Government agencies and sub-agencies or offices (e.g., Fisheries Service, U.S. Coast Guard, and BOEM) should closely regulate high levels of vessel activity that create ocean noise in areas near NARW critical habitat, especially calving areas in the Southeast – where mother-calf pairs need quieter waters to communicate. This lack of oversight is yet another example of the U.S. Government’s failure to effectively comply with, implement, or enforce the MMPA, ESA, and NEPA as well as relevant regulations.<sup>133</sup>

**3. Offshore Energy Development: U.S. Government’s Failure to Effectively Enforce Environmental Laws to Protect North Atlantic Right Whales from Offshore Energy Development** (43 U.S.C. §§ 1331 et seq.; 30 C.F.R. Ch. II, Subch. B, Parts 250, 251, 254 and Ch. V, Subch. B, Parts 550 and 551; 16 U.S.C. § 1371(a)(5)(A), (D); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508)

47. Offshore energy development in the U.S. Atlantic poses risks to the critically endangered North Atlantic right whale. Under the Trump Administration, the U.S. Government not only permitted seismic airgun blasting, which Oceana and our coalition partners successfully stopped, but also proposed offshore oil and gas leasing in the Atlantic in the five-year leasing plan. Such proposals pose unacceptable risks to the species, and do not strike the appropriate balance required to effectively comply with, implement, and enforce OCSLA, much less the ESA, the MMPA, and NEPA.<sup>134</sup> As offshore energy projects proceed forward in the Atlantic, diligent adherence to environmental laws and regulations along with a precautionary approach are key to avoid further decline of the NARWs from vessel strikes, entanglements, and ocean noise.

**IV. THE SUBMISSION MEETS ALL ADMISSIBILITY REQUIREMENTS OF USMCA ARTICLE 24.27**

48. Oceana’s submission is in English, clearly identifies who is making the submission, provides sufficient information for both the CEC and the United States to review the submission, does not rely on media reports, identifies the environmental laws that are not being enforced, and is aimed at promoting enforcement rather than at harassing industry. In addition, since Oceana’s binational North Atlantic Right Whale Campaign began in 2019, Oceana has repeatedly engaged with relevant U.S. Government agencies, offices, and sub-agencies – whether in writing, in meetings, or via phone calls – to urge that immediate action be taken to adequately protect the critically endangered North Atlantic right whale. Written examples of Oceana’s reasonable actions to pursue private remedies include submitting several comment letters, publishing reports, and sending the August 18 Notice Letter to the U.S. Government.<sup>135</sup> In our comment letters,<sup>136</sup> prior legal brief,<sup>137</sup> reports,<sup>138</sup> as well as the notice letter, Oceana explained in great detail the crisis that NARWs face and laid out the failures of the U.S. Government to effectively comply with, implement, or enforce federal environmental laws and regulations to protect the species as required under Article 24.27 of the USMCA. Based on the limited and inadequate government action proposed thus far, Oceana’s comments appear to have fallen on deaf ears. Oceana has received no response to our notice letter despite the request to meet with relevant officials to discuss how the U.S. Government might come into compliance – not only with federal environmental laws and regulations but also with the requirements of the USMCA.

49. As detailed above, the submission alleges harm to NARWs and the environment. The issues presented here raise matters about which further study would advance the goals of the Environment Chapter of the USMCA. For example, in addition to the USMCA’s general obligation to enforce environmental law, Article 24.19 of the USMCA, entitled “Conservation of Marine Species,” states that “[e]ach Party *shall* promote the long-term conservation of . . . marine mammals through implementation and effective enforcement of conservation and management measures.” These measures *must* include “measures to avoid, mitigate, or reduce bycatch of non-target species in fisheries, including appropriate measures pertaining to the use of bycatch mitigation devices, modified gear, or other techniques to reduce the impact of fishing operations on these species.”<sup>139</sup>

50. Oceana urges the Secretariat to request a response from the United States to this submission. In response, the United States may inform the Secretariat that some of the matters at issue are subject to a pending judicial or administrative proceeding under USMCA Article 24.27(4)(a). The USMCA does not provide a definition of what

constitutes a pending judicial or administrative proceeding; however, the Secretariat looks to the definition provided by the prior applicable international agreement governing the SEM process, the North American Environmental Cooperation Agreement (NAAEC, which supported the predecessor trade agreement, the North American Free Trade Agreement (NAFTA)).<sup>140</sup> The Secretariat recently recognized that it “considers that the threshold of whether judicial or administrative proceedings are pending should be construed narrowly to give full effect to the object and purpose of the [USMCA].”<sup>141</sup> For the sake of transparency, Oceana apprises the Secretariat of recent litigation in U.S. federal district courts: (1) *Center for Biological Diversity et al. v. Raimondo* (Case 1:18-cv-00112); and (2) *Maine Lobsterman’s Association v. National Marine Fisheries Service* (Case 1:21-cv-02509). Oceana believes the Secretariat has ample reason to construe these proceedings narrowly in order to give full effect to the object and purpose of the USMCA in the SEM process. Oceana urges the Secretariat to retain all issues presented in this submission in the SEM process, as the issues do not constitute the exact same violation of law nor would the types of relief requested in the federal court conflict in any way with that which has been requested in the USMCA SEM process.<sup>142</sup>

## **V. CONCLUSION**

51. As the foregoing demonstrates, the U.S. Government is not effectively enforcing environmental laws in a timely manner to protect and recover endangered NARWs from the primary threats of commercial fishing gear entanglement and vessel strikes as well as the added stresses of climate change, ocean noise, and offshore energy development. The agency has failed – *for at least 20 years* – to effectively enforce environmental laws to adequately protect NARWs. Considering the dire status of NARWs and the legal requirement based on best available science that less than one NARW can be killed per year to support recovery of the species, we urge the U.S. Government to *immediately and effectively* comply with, implement, and enforce environmental laws to protect NARWs.
52. Specifically, the U.S. Government has allowed and continues to authorize commercial fisheries that adversely impact NARWs by operating in excess of PBR and without a valid BiOp, ITS, and incidental take authorization despite years of acknowledged excessive mortality and serious injury of the species due to fishing gear entanglement. The MMPA, ESA, and NEPA and the related regulations must be complied with, implemented, and enforced in a timely manner to safeguard the species from further fishing gear entanglement.
53. The U.S. Government is needlessly delaying action to address vessel strikes. To comply with the USMCA requirements to effectively comply with, implement, and enforce environmental laws, the U.S. Government must immediately revise the 2008 Vessel Speed Rule, taking into serious consideration Oceana’s recommendations, *and* demonstrate improved on-the-water enforcement that is effective through compliance rates approaching 100% in SMAs and cooperation rates approaching 100% in DMAs. The Coast Guard Authorization Act, the MMPA, the ESA, and NEPA as well as the related regulations must be complied with, implemented, and enforced in a timely manner to safeguard the species from vessel strikes.
54. In relation to additional stressors to NARWs, the U.S. Government has delayed action to mitigate climate change far too long under leadership that has either failed to address or worse yet, actively denied the reality of climate change – to the detriment of all life on the planet, including NARWs. Immediate action is needed to curb ocean warming that has prompted, since at least 2011, a significant shift in the distribution of zooplankton on which the NARWs depend for food. With respect to ocean noise, on November 30, 2018, *nearly two years after* the U.S. Government recognized the dire straits of NARWs and issued a UME in early 2017, the Fisheries Service authorized seismic airgun blasting to explore for offshore oil and gas in the migratory waterways and near the critical calving habitat of NARWs. Knowingly looking the other way and engaging in a years-long process to allow harmful seismic surveys – a precursor to offshore oil and gas drilling – is not only irresponsible in the face of climate change but also an utter failure to effectively comply with, implement, or enforce environmental laws, which mandate the protection of

endangered marine mammals, including NARWs. As to offshore energy development, the U.S. Government must not blindly push forward with offshore energy projects to the neglect of its obligations to effectively comply with, implement, or enforce environmental laws, especially those that are intended to protect and recover the NARWs.

55. In short, the U.S. Government must take *immediate, effective* action to reduce or eliminate harmful fishing gear and minimize vessel traffic, while reducing the additional stressors of climate change, harmful ocean noise, and impacts from the siting, construction, operation and decommissioning of offshore energy projects. In addition, the U.S. Government must promulgate, implement, and enforce interim emergency regulations that can be demonstrated to be effective in protecting NARWs.
56. In sharp contrast to the U.S. Government, in recent years, the Canadian Government has taken a number of necessary measures on a rapid schedule to minimize both fishing and shipping impacts to North Atlantic right whales. The U.S. Government must stop pointing fingers northward and, instead, take responsibility and immediate action to protect NARWs in the U.S. Atlantic EEZ to avoid further hypocrisy. Rather than point fingers, the United States should redouble their efforts to cooperate with Canada to identify and fund innovative solutions to protect NARWs, such as ropeless fishing gear.
57. Due to the many U.S. Government's failures to effectively enforce environmental law outlined above, Oceana requests that the CEC Secretariat develop a factual record, as contemplated by Article 24.28, on an expedited basis. A factual record will clarify the many ways that the U.S. Government has failed to effectively comply with, implement, or enforce the federal environmental laws and regulations specifically designed to protect these endangered marine mammals from the primary human threats of fishing gear entanglement and vessel strikes as well as the additional stressors of climate change, ocean noise, and offshore energy development. A factual record will also allow the Parties, especially the United States and Canada, and the CEC to develop a successful North Atlantic right whale conservation strategy that encompasses the full range of the species along the Atlantic coast.
58. Thank you for your serious consideration of this matter. Oceana looks forward to receiving the CEC Secretariat's confirmation of receipt of this SEM as well as the response of the U.S. Government. If you should have any questions, please do not hesitate to reach out to me at the email address below.

Sincerely,



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## Endnotes

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<sup>1</sup> 50 C.F.R. § 17.11; 35 Fed. Reg. 8,495 (June 2, 1970); see also National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Sept. 30, 2021).

<sup>2</sup> Since 1973, North Atlantic right whales have been listed as a “depleted” species under the MMPA. 16 U.S.C. § 1362(1); 38 Fed. Reg. 20,564, 20,570 and 20,580 (Aug. 1, 1973). North Atlantic right whales are also a “strategic stock” under the MMPA, which is a marine mammal stock for which the level of direct human-caused mortality exceeds the potential biological removal level (PBR) (less than one for NARWs); is declining and likely to be listed as threatened or endangered under the Endangered Species Act; or is designated as “depleted.” 16 U.S.C. § 1362(19).

<sup>3</sup> National Marine Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western North Atlantic Stock – Stock Assessment* (1995), [https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w\\_508.pdf](https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w_508.pdf).

<sup>4</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Sept. 30, 2021); National Marine Fisheries Service, *Species in the Spotlight Priority Actions 2021-2025: North Atlantic Right Whale* 13-14 (March 2021), [https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021\\_NARightWhale-FINAL%20508.pdf](https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021_NARightWhale-FINAL%20508.pdf).

<sup>5</sup> Email from Colleen Coogan to Atlantic Large Whale Take Reduction Team Members and Alternates (10-26-2020) (stating that “[s]ince the population peaked at 481 in 2011, after accounting for 103 births, roughly 218 North Atlantic right whales have died of presumed anthropogenic causes—this is a rate of roughly 24 whale deaths per year.”).

<sup>6</sup> Richard M. Pace III et al., *Cryptic Mortality of North Atlantic right whales*, *Conservation Science and Practice* (Feb. 2021), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346>.

<sup>7</sup> Joshua D. Stewart et al., *Decreasing body lengths in North Atlantic right whales*, *Current Biology* 31: 1-6 (July 26, 2021), <https://doi.org/10.1016/j.cub.2021.04.067>.

<sup>8</sup> Erin L. Meyer-Gutbrod, et al., *Climate-associated changes in prey availability drive reproductive dynamics of the North Atlantic right whale population*, *Marine Ecology Progress Series* 535: 243-258 (Sept. 15, 2015), <https://doi.org/10.3354/meps11372>; Erin L. Meyer-Gutbrod, et al., *Uncertain recovery of the North Atlantic right whale in a changing ocean*, *Global Change Biology* 24: 455-464 (Sept. 25, 2017), <https://doi.org/10.1111/gcb.13929>.

<sup>9</sup> Julie Marie Van der Hoop et al., *Foraging rates of ram-filtering North Atlantic right whales*, *Functional Ecology* 33(3) (May 2019), <https://www.researchgate.net/publication/333027464> *Foraging rates of ram-filtering North Atlantic right whales*.

<sup>10</sup> Erin L. Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, *Oceanography* 31(2): 19-23 (June 2018), <https://doi.org/10.5670/oceanog.2018.209>; Nicholas R. Record et al., *Rapid Climate-Driven Circulation of Changes Threaten Conservation of Endangered North Atlantic Right Whales*, *Oceanography* (June 2019), [https://tos.org/oceanography/assets/docs/32-2\\_record.pdf](https://tos.org/oceanography/assets/docs/32-2_record.pdf).

<sup>11</sup> Rosalind M. Rolland, et al., *Evidence That Ship Noise Increases Stress in Right Whales*, *Proc. R. Soc. B* 279: 2363-68 (June 22, 2012), <https://doi.org/10.1098/rspb.2011.2429>.

<sup>12</sup> Jonathan Gordon, et al., *A Review of the Effects of Seismic Surveys on Marine Mammals*, *Mar. Technol. Soc. J.* 37(4): 16-34 (Winter 2003/4); Karin A. Forney et al., *Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity*, *Endang. Species Res.* 32: 391-413 (May 8, 2017), <https://doi.org/10.3354/esr00820> (noting that ocean noise can interrupt foraging, causing stress, which can adversely affect reproduction and survival, and displace animals into areas where they face greater anthropogenic risks).

<sup>13</sup> U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean; Notice; Issuance of Five Incidental Harassment Authorizations*, 83 Fed. Reg. 63,268 (Dec. 7, 2018).

<sup>14</sup> National Marine Fisheries Service, *Species in the Spotlight – Priority Actions 2021-2025* 13 (March 2021), [https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021\\_NARightWhale-FINAL%20508.pdf](https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021_NARightWhale-FINAL%20508.pdf).

<sup>15</sup> Oceana, *Notice Letter to U.S. Government Regarding USMCA Article 24.27 Submission on Enforcement Matters Due to Failures to Effectively Comply with, Implement, or Enforce Environmental Laws at 8-25* (Aug. 18, 2021) [“Oceana’s August 18 Notice Letter to U.S. Government”].

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<sup>16</sup> The U.S. Government is responsible under both domestic and international law for the conservation of marine mammals in the exclusive economic zone (EEZ). United Nations Convention on the Law of the Sea, 1833 UNTS 397, 21 ILM 1261 (1982), arts. 55-57 (delineating sovereign rights and jurisdiction of a coastal State in the EEZ out to 200 nautical miles from shore, which includes conserving and managing living natural resources in the water column).

<sup>17</sup> Sophie Monsarrat et al., *A spatially explicit estimate of the prewhaling abundance of the endangered North Atlantic right whale: Eubalaena glacialis Historical Abundance*, *Conservation Biology* 30: 783–791 (Aug. 2016), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/cobi.12664>; Eugene E. Buck, *CRS Report for Congress – The North Atlantic Right Whale: Federal Management Issues* (Mar. 29, 2001), <https://www.everycrsreport.com/reports/RL30907.html>.

<sup>18</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Sept. 30, 2021).

<sup>19</sup> 50 C.F.R. § 17.11; 35 Fed. Reg. 8,495 (June 2, 1970); see also National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Sept. 30, 2021).

<sup>20</sup> Since 1973, North Atlantic right whales have been listed as a “depleted” species under the MMPA. 16 U.S.C. § 1362(1); 38 Fed. Reg. 20,564, 20,570 and 20,580 (Aug. 1, 1973). North Atlantic right whales are also a “strategic stock” under the MMPA, which is a marine mammal stock for which the level of direct human-caused mortality exceeds the potential biological removal level (PBR) (less than one for NARWs); is declining and likely to be listed as threatened or endangered under the Endangered Species Act; or is designated as “depleted.” 16 U.S.C. § 1362(19).

<sup>21</sup> IUCN, *Almost a Third of Lemurs and North Atlantic Right Whales Now Critically Endangered – IUCN Red List*, <https://www.iucn.org/news/species/202007/almost-a-third-lemurs-and-north-atlantic-right-whale-now-critically-endangered-iucn-red-list> (July 9, 2020).

<sup>22</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*, [https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf); see also Emma Davie, *New population estimate suggests only 356 North Atlantic right whales left*, CBC (Oct. 29, 2020), <https://www.cbc.ca/news/canada/nova-scotia/356-north-atlantic-right-whales-left-2020-population-1.5779931> (quoting Philip Hamilton, a research scientist at Anderson Cabot Center for Ocean Life at the New England Aquarium, stating that there are roughly 70 breeding females in the population).

<sup>23</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Sept. 3, 2021).

<sup>24</sup> 16 U.S.C. § 1421h; 16 U.S.C. § 1421c.

<sup>25</sup> Richard M. Pace III et al., *Cryptic Mortality of North Atlantic right whales*, *Conservation Science and Practice* (Feb. 2021), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346>.

<sup>26</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Sept. 3, 2021).

<sup>27</sup> While they are inadequate to effectively enforce environmental law in a manner that adequately protects NARWs, Oceana recognizes that the Final Risk Reduction Rule was issued on September 17, 2021; as a result, certain changes to the regulatory regime for the American lobster fishery will be effective as of October 18, 2021, while others are delayed and will not go into effect until May 1, 2022. National Marine Fisheries Service, *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery – Final Rule*, 86 Fed. Reg. 51,970 (Sept. 17, 2021), <https://www.fisheries.noaa.gov/action/final-rule-amend-atlantic-large-whale-take-reduction-plan-reduce-risk-serious-injury-and> [“Final Risk Reduction Rule”].

<sup>28</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale#overview> (last visited Sept. 3, 2021).

<sup>29</sup> National Marine Fisheries Service, *Species in the Spotlight Priority Actions 2021-2025: North Atlantic Right Whale 1*, (March 2021), [https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021\\_NARightWhale-FINAL%20508.pdf](https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021_NARightWhale-FINAL%20508.pdf) (listing NARWs as one of nine species that are a recovery priority due to declining populations, habitat destruction, and/or conflicts with human activities such that extinction is almost certain in the immediate future); see also Erin L. Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, *Oceanography* Vol. 31(2): 19-23 (June 2018), <https://doi.org/10.5670/oceanog.2018.209>.



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<sup>30</sup> USMCA, art. 24.1.

<sup>31</sup> 16 U.S.C. §§1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 215-229.

<sup>32</sup> 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453.

<sup>33</sup> 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Parts 1500-1508.

<sup>34</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii); 16 U.S.C. § 1387(g); 16 U.S.C. § 1533(b)(7); 50 C.F.R. § 229.9; 50 C.F.R. § 424.20.

<sup>35</sup> 16 U.S.C. § 1387(f).

<sup>36</sup> National Marine Fisheries Service, *NOAA Technical Memorandum NMFS-NE-271: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2020* at 19, Figure 5 (July 2021), <https://media.fisheries.noaa.gov/2021-07/Atlantic%202020%20SARs%20Final.pdf?null%09> [“2020 Stock Assessment”].

<sup>37</sup> National Marine Fisheries Service, *Atlantic Large Whale Take Reduction Team Meeting Summary* at 2 (Nov. 2016), <https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/atlantic-large-whale-take-reduction-team>; see also National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Sept. 3, 2021).

<sup>38</sup> 16 U.S.C. §§1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 215-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453.

<sup>39</sup> *Oceana’s August 18 Notice Letter to the U.S. Government* at 41-43; *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 30-32 (Mar. 1, 2021); see also National Marine Fisheries Service, *Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coast Fisheries Cooperative Management Act Provisions; American Lobster Fishery – Proposed Rule*, 85 Fed. Reg. 86,878 (Dec. 31, 2020), <https://www.federalregister.gov/documents/2020/12/31/2020-28775/taking-of-marine-mammals-incident-to-commercial-fishing-operations-atlantic-large-whale-take> [“Proposed Risk Reduction Rule”].

<sup>40</sup> The Final Risk Reduction Rule was issued on September 17, 2021; that same day, several NGO plaintiffs filed an amended complaint in their ongoing litigation (Case 1:18-cv-00112-JEB) to challenge both the Final BiOp and the Final Risk Reduction Rule; on September 27, 2021, the Maine Lobstermen’s Association filed a complaint (Case 1:21-cv-02509) to challenge the Final BiOp and the Final Risk Reduction Rule.

<sup>41</sup> In the short term, the rule must be designed to reduce takes to levels less than the PBR, regardless of economic impacts. 16 U.S.C. § 1387(f)(2).

<sup>42</sup> *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 3-6, 27-32 (Mar. 1, 2021).

<sup>43</sup> 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 216.105(c) (“[R]egulations will be established based on the best available information.”)

<sup>44</sup> National Marine Fisheries Service, *Final Environmental Impact Statement: Atlantic Large Whale Take Reduction Plan Risk Reduction Rule* Vol I. at Sections 5.2.2, 5.3.1.3 (July 2, 2021), <https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/2021-atlantic-large-whale-take-reduction-plan> [“Final EIS”]; see also National Marine Fisheries Service, *Draft Environmental Impact Statement: Atlantic Large Whale Take Reduction Plan Risk Reduction Rule* Vol. I at Sections 5.1.2, 5.2.1.3 (Dec. 30, 2020), <https://www.fisheries.noaa.gov/resource/document/draft-environmental-impact-statement-atlantic-large-whale-take-reduction-plan> [“Draft EIS”].

<sup>45</sup> 16 U.S.C. § 1387(b).

<sup>46</sup> 16 U.S.C. § 1387(f)(2).

<sup>47</sup> National Marine Fisheries Service, *Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council’s Omnibus Essential Fish Habitat Amendment 2* [Consultation No. GARFO-2017-00031] (May 27, 2021), <https://www.fisheries.noaa.gov/resource/document/biological-opinion-10-fishery-management-plans> [“Final BiOp”] at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 475-76.

<sup>48</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii); 16 U.S.C. § 1387(g); 16 U.S.C. § 1533(b)(7); 50 C.F.R. § 229.9; 50 C.F.R. § 424.20.

<sup>49</sup> National Marine Fisheries Service, *Atlantic Large Whale Take Reduction Team Meeting Summary* at 2 (Nov. 2016), <https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/atlantic-large-whale-take-reduction-team>.

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<sup>50</sup> *Oceana’s August 18 Notice Letter to the U.S. Government* at 38, 43; *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 3-10, 21-27 (Mar. 1, 2021).

<sup>51</sup> 40 C.F.R. § 1502.14(a), (b).

<sup>52</sup> 40 C.F.R. § 1502.9(c); NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities: Companion Manual for NOAA Administrative Order 216-6A* at 17 (January 13, 2017).

<sup>53</sup> 40 C.F.R. §§ 1500.1(b), 1502.1, 1502.16(a),(b); *Friends of Clearwater v. Dombeck*, 222 F.3d 552, 557 (9th Cir. 2000) (explaining that “an agency that has prepared an EIS . . . must be alert to new information that may alter the results of its original environmental analysis”); see also *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989).

<sup>54</sup> 40 C.F.R. § 1506.6; *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 11-14, 21-27 (Mar. 1, 2021).

<sup>55</sup> 40 C.F.R. § 1501.7; 40 C.F.R. § 1508.7; 40 C.F.R. § 1508.8; 40 C.F.R. § 1508.25; Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act* (Jan. 1997),

[https://ceq.doe.gov/publications/cumulative\\_effects.html](https://ceq.doe.gov/publications/cumulative_effects.html); see also *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 11-14, 21-27 (Mar. 1, 2021).

<sup>56</sup> 42 U.S.C. § 4332(A).

<sup>57</sup> 50 C.F.R. § 402.14(g)(8); 16 U.S.C. §§ 1361 et seq. (mandating the use of “best scientific evidence” as well as the “best scientific information available” in several provisions of the MMPA, including the moratorium provision at 16 U.S.C. § 1371); 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 216.105(c).

<sup>58</sup> *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 11-14, 21-27 (Mar. 1, 2021).

<sup>59</sup> *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) at Appendix I – Brilliant Opinion.

<sup>60</sup> 16 U.S.C. § 1531(c)(1).

<sup>61</sup> National Marine Fisheries Service, *Draft Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council’s Omnibus Essential Fish Habitat Amendment 2* at 19-21 (Jan. 15, 2021), <https://www.fisheries.noaa.gov/bulletin/draft-biological-opinion-10-fishery-management-plans-released> [“Draft BiOp”]; see also Michael J. Asaro, *Update on NOAA Fisheries Right Whale Recovery Actions* at 6 (Nov. 30, 2017), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro\\_trtwebinar\\_nov2\\_017.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro_trtwebinar_nov2_017.pdf).

<sup>62</sup> *Oceana, Comment Letter on Draft BiOp* (Feb. 19, 2021).

<sup>63</sup> Several NGO plaintiffs filed a complaint to challenge the 2014 BiOp in January 2018; in April 2020, the court ordered the agency to issue a new BiOp with an Incidental Take Statement by May 31, 2021, the agency issued the 2021 Final BiOp on May 27, 2021; upon issuance of the Final Risk Reduction Rule, on September 17, 2021, NGO plaintiffs filed an amended complaint in their ongoing litigation (Case 1:18-cv-00112-JEB) to challenge both the Final BiOp and the Final Risk Reduction Rule.

<sup>64</sup> Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 475-76 (May 2021).

<sup>65</sup> *Id.*

<sup>66</sup> 2020 Stock Assessment at 18, Table 1 .

<sup>67</sup> Final BiOp at 390-391, Table 83.

<sup>68</sup> Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 478 (May 2021) (stating that mortality and serious injury in 2021 will only be reduced to an average annually of 2.69, which does not meet the zero lethal take required in the Final BiOp and is approximately 1.9 higher than the PBR of 0.8.). Notably, the Draft BiOp had projected slightly lower mortality and serious injury as of 2021 of 2.2 NARWs.

<sup>69</sup> Exceptions to the ESA prohibition on “take” are only allowed if statutory requirements are met; “take” that exceeds the designated take levels violates the ESA. 16 U.S.C. § 1538(a)(1); 50 C.F.R. § 402.14(i).

<sup>70</sup> “Take” that exceeds the PBR for the marine mammal species violates the MMPA. 16 U.S.C. §§ 1361(2), 1371; 50 C.F.R. § 216.11.

<sup>71</sup> 16 U.S.C. § 1387(f)(2); see also *Oceana, Comment Letter on Draft BiOp* (Feb. 19, 2021).

<sup>72</sup> Compare 16 U.S.C. § 1387(f)(2) with Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 479 (May 2021).

<sup>73</sup> *Oceana’s August 18 Notice Letter to U.S. Government* at 26-36, 45-48; see also *Oceana, Comment Letter on Draft BiOp* (Feb. 19, 2021).

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<sup>74</sup> 50 C.F.R. § 402.02; 50 C.F.R. § 402.14(g)(2)–(3); 16 U.S.C. § 1536(b)(3)(A), 16 U.S.C. § 1536(b)(4).

<sup>75</sup> 50 C.F.R. § 402.14(i).

<sup>76</sup> *Id.*

<sup>77</sup> 50 C.F.R. § 402.14(g)(8).

<sup>78</sup> 16 U.S.C. § 1539, including (a)(1)(B); 50 C.F.R. § 222.307, including (c)(1)-(2) and (e).

<sup>79</sup> NOAA Fisheries, Endangered Species Conservation – Incidental Take Permits,

<https://www.fisheries.noaa.gov/national/endangered-species-conservation/incidental-take-permits> (last updated April 29, 2021).

<sup>80</sup> *Strahan v. Sec., Mass. Exec. Office of Energy and Env'tl. Affairs*, 485 F.Supp.3d 76 (D. Mass. April 30, 2020).

<sup>81</sup> 16 U.S.C. § 1387(c).

<sup>82</sup> 16 U.S.C. § 1387(c)(1)(A)(i).

<sup>83</sup> 16 U.S.C. § 1387(c)(1)(A)(ii).

<sup>84</sup> 16 U.S.C. § 1387(c).

<sup>85</sup> 16 U.S.C. § 1387(a)(2) (noting that “[i]n the case of the incidental taking of marine mammals from species or stocks designated under this [Act] as depleted on the basis of their listing as threatened species or endangered species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), both this section and section 1371(a)(5)(E) of this Act shall apply” (emphasis added)).

<sup>86</sup> “Negligible impact” is an undefined term in the MMPA; however, MMPA regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 216.103. For the latest guidance of “negligible impact” determinations in the context of MMPA Section 101(a)(5)(E), see National Marine Fisheries Service, *Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E)* (June 17, 2020), <https://media.fisheries.noaa.gov/dam-migration/02-204-02.pdf>

<sup>87</sup> 16 U.S.C. § 1371(a)(5)(E).

<sup>88</sup> *Oceana’s August 18 Notice Letter to U.S. Government* at 32-35, 49-50; *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* at 6-8 (Mar. 1, 2021).

<sup>89</sup> *Oceana’s August 18 Notice Letter to U.S. Government* at 50.

<sup>90</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforce-office7.html> (last visited Sept. 30, 2021).

<sup>91</sup> *Id.*

<sup>92</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*,

<https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Sept. 3, 2021).

<sup>93</sup> 16 U.S.C. § 1540(a)(1), as updated by 15 C.F.R. § 6.3(14) (Jan. 15, 2021); 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453.

<sup>94</sup> *Oceana’s August 18 Notice Letter to U.S. Government* at 18-23, 51-55; *Oceana, Comment Letter on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight* (Aug. 30, 2021); *Oceana, Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021); *Oceana, Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020); *Oceana, Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), available at [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf).

<sup>95</sup> 46 U.S.C. §§ 70001(a), 70003(a), 70005(d); 14 U.S.C. §§ 101 et seq.; 46 U.S.C. § 70001 et seq.; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508.

<sup>96</sup> U.S. Coast Guard, *Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to Delaware Bay, Delaware*, 85 Fed. Reg. 64507 (Oct. 13, 2020); see also *Oceana, Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020).

<sup>97</sup> U.S. Coast Guard, *Port Access Study: Northern New York Bight – Notice of Study*, 85 Fed. Reg. 38907 (June 29, 2020); U.S. Coast Guard, *Port Access Study: Northern New York Bight – Supplemental Notice of Study*, 86 Fed. Reg. 18996 (April 12, 2021); U.S. Coast Guard, *Port Access Study: Northern New York Bight – Notice of Availability of Draft Report*, 86 Fed. Reg. 37339 (July 15, 2021); U.S.

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Coast Guard, *Draft Port Access Route Study: Northern New York Bight* (June 29, 2021); see also Oceana, *Comment Letter on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight* (Aug. 30, 2021).

<sup>98</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. 60,173 (October 10, 2008), <https://www.federalregister.gov/documents/2008/10/10/E8-24177/Endangered-fish-and-wildlife-final-rule-to-implement-speed-restrictions-to-reduce-the-threat-of-ship>; 50 C.F.R. § 224.105.

<sup>99</sup> PB Conn et al, *Vessel speed restrictions reduce risk of collision-related mortality for North Atlantic right whales*, *Ecosphere* 4(4)-43 (April 2013), <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/ES13-00004.1>.

<sup>100</sup> 78 Fed. Reg. 73,726 (Dec. 9, 2013).

<sup>101</sup> 50 C.F.R. § 224.105(d) (requiring that “no later than January 1, 2019, the National Marine Fisheries Service will publish and seek comment on a report evaluating the conservation value and economic and navigational safety impacts of this section, including any recommendations to minimize the burden of such impacts”).

<sup>102</sup> National Marine Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment* (June 2020; not publicly released until January 2021), [https://media.fisheries.noaa.gov/2021-01/FINAL\\_NARW\\_Vessel\\_Speed\\_Rule\\_Report\\_Jun\\_2020.pdf?null](https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null) [“NARW Vessel Speed Rule Assessment”].

<sup>103</sup> NARW Vessel Speed Rule Assessment at 10-14 (noting between 63% and 85% compliance with mandatory speed limits in Seasonal Management Areas (SMAs) with cargo and pleasure vessels exhibiting the least compliance at 44% and 31%, respectively); *id.* at 14-17 (finding that only a small portion of vessels are modifying their speed to less than 10 knots to cooperate with Dynamic Management Areas (DMAs)).

<sup>104</sup> NARW Vessel Speed Rule Assessment at 10-14; *id.* at 14-17.

<sup>105</sup> *Id.* at 36-37.

<sup>106</sup> Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021).

<sup>107</sup> *Id.*

<sup>108</sup> Oceana, *Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales*, (March 20, 2020), <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right>.

<sup>109</sup> *Id.*

<sup>110</sup> MMSI data provides the location, speed, class, length, flag state, timestamp, and date based on terrestrial and satellite sources.

<sup>111</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021),

[https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf).

<sup>112</sup> *Id.*

<sup>113</sup> Erin M. Oleson et al., *NOAA Technical Memorandum NMFS-OPR-64 - North Atlantic Right Whale Monitoring and Surveillance: Report and Recommendations of the National Marine Fisheries Service’s Expert Working Group* (June 2020),

<https://repository.library.noaa.gov/>.

<sup>114</sup> National Marine Fisheries Service, *Press Conference* (Aug. 30, 2021).

<sup>115</sup> Brian Dabbs, *Offshore-wind plans spark conservation pushback*, *National Journal* (April 12, 2021) (on file with Oceana) (noting that NOAA spokeswoman, Kate Goggin, stated: “Reducing the risk of vessel strikes to right whales remains an agency priority, but we have no set timeline for regulatory action at this time.”).

<sup>116</sup> 50 C.F.R. § 224.105; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453.

<sup>117</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforce-office7.html> (last visited Sept. 30, 2021).

<sup>118</sup> *Id.*

<sup>119</sup> 16 U.S.C. § 1540(a)(1), as updated by 15 C.F.R. § 6.3(14) (Jan. 15, 2021); 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021); 16 U.S.C. § 1540(b)(1); 16 U.S.C. § 1375(b), as amended by 18 U.S.C. § 3571(b)(5) (noting that Class A misdemeanor for individuals that does not result in death is capped at \$100,000 fine). Violations of the Endangered Species Act and Marine Mammal Protection Act, because they each carry maximum terms of imprisonment of one year, are class A misdemeanors. 18 U.S.C. § 3559(a)(6) (defining a Class A misdemeanor). If an individual is convicted of criminal violations of both the ESA and the MMPA, then the two amounts can be combined for a maximum criminal penalty of \$200,000. 18 U.S.C. § 3571(b).

<sup>120</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforce-office7.html> (last visited Sept. 30, 2021).

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<sup>121</sup> 16 U.S.C. § 1540(a)(1), as updated by 15 C.F.R. § 6.3(14) (Jan. 15, 2021); 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021); 16 U.S.C. § 1540(b)(1); 16 U.S.C. § 1375(b), as amended by 18 U.S.C. § 3571(b)(5)); 50 C.F.R. § 224.105; 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453.

<sup>122</sup> *Oceana's August 18 Notice Letter to U.S. Government* at 5-6, 23-25, 56-57.

<sup>123</sup> 16 U.S.C. § 1540(f)(giving the Fisheries Service—as well as the Secretary of the Treasury and the Secretary of the Department of Homeland Security, in which the U.S. Coast Guard is operating—broad authority to promulgate any regulation “as may be appropriate” to enforce the Endangered Species Act). 16 U.S.C. § 1382 (stating “[t]he Secretary, in consultation with any other Federal agency to the extent that such agency may be affected, shall prescribe such regulations as are necessary and appropriate to carry out the purposes of [the MMPA].”)

<sup>124</sup> Andrew Pershing et al., *Can Right Whales Out-Swim Climate Change? Can We?*, *Oceanography* Vol. 34(3) at 19-21 (Sept. 2021), <https://doi.org/10.5670/oceanog.2021.315>; Erin L. Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, *Oceanography* 31(2): 19-23 (June 2018), <https://doi.org/10.5670/oceanog.2018.209>; Nicholas R. Record et al., *Rapid Climate-Driven Circulation of Changes Threaten Conservation of Endangered North Atlantic Right Whales*, *Oceanography* (June 2019), [https://tos.org/oceanography/assets/docs/32-2\\_record.pdf](https://tos.org/oceanography/assets/docs/32-2_record.pdf).

<sup>125</sup> Erin M. Oleson et al., *NOAA Technical Memorandum NMFS-OPR-64 - North Atlantic Right Whale Monitoring and Surveillance: Report and Recommendations of the National Marine Fisheries Service's Expert Working Group* (June 2020).

<sup>126</sup> IPCC, *Sixth Assessment Report – Summary for Policy Makers*, <https://www.ipcc.ch/report/ar6/wg1/#SPM>.

<sup>127</sup> IPCC, *Sixth Assessment Report – Summary for Policy Makers*, <https://www.ipcc.ch/report/ar6/wg1/#SPM>.

<sup>128</sup> 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508.

<sup>129</sup> National Marine Fisheries Service, *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean*. *National Oceanic and Atmospheric Administration*, 83 Fed. Reg. 63,268 (Nov. 30, 2018), <https://www.federalregister.gov/documents/2018/12/07/2018-26460/takes-of-marine-mammals-incident-to-specified-activities-taking-marine-mammals-incident-to>

<sup>130</sup> *South Carolina Coastal Conservation League et al. v. National Marine Fisheries Service*, Memorandum in Support of Plaintiff's Motion for a Preliminary Injunction (Feb. 20, 2019).

<sup>131</sup> 16 U.S.C. § 1371(a)(5)(A), (D).

<sup>132</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>133</sup> 16 U.S.C. § 1371(a)(5)(A), (D); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508.

<sup>134</sup> 43 U.S.C. §§ 1331 et seq.; 30 C.F.R. Ch. II, Subch. B, Parts 250, 251, 254 and Ch. V, Subch. B, Parts 550 and 551; 16 U.S.C. § 1371(a)(5)(A), (D); 16 U.S.C. §§ 1361-1383b, 1401-1406, 1411-1421h; 50 C.F.R. Ch. II, Subch. C, Parts 216-229; 16 U.S.C. §§ 1531 et seq.; 50 C.F.R. Ch. IV, Subch. A, Parts 402, 424 and Subch. C, Parts 450-453; 42 U.S.C. §§ 4321-4370m; 40 C.F.R. Ch. V, Subch. A, Parts 1500-1508.

<sup>135</sup> *Oceana's August 18 Notice Letter to U.S. Government*.

<sup>136</sup> *Oceana, Comment Letter on Draft BiOp* (Feb. 19, 2021); *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021); *Oceana, Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021); *Oceana, Comment Letter on Notice of Availability of Draft Report on the Port Access Route Study: Northern New York Bight* (Aug. 30, 2021); *Oceana, Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020); *Oceana and IFAW, Comment Letter on Five Proposed Incidental Harassment Authorizations for Seismic Airgun Blasting* (July 21, 2017).

<sup>137</sup> *South Carolina Coastal Conservation League et al. v. National Marine Fisheries Service*, Memorandum in Support of Plaintiff's Motion for a Preliminary Injunction (Feb. 20, 2019).

<sup>138</sup> *Oceana, No Time to Lose: Last Chance for Survival for North Atlantic Right Whales* (Sept. 2019),

<https://usa.oceana.org/publications/reports/last-chance-survival-north-atlantic-right-whales>; *Oceana, Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales*, (March 20, 2020), <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right>; *Oceana, Speeding Toward*

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*Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021),

[https://usa.oceana.org/sites/default/files/4046/narw-21-](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

[0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf).

<sup>139</sup> USMCA, art. 24.19(c).

<sup>140</sup> NAAEC, art. 45(3), <https://ustr.gov/sites/default/files/naaec.pdf>.

<sup>141</sup> SEM-21-001 (*Fairview Terminal*), Determination in accordance with Article 28 (Aug. 27, 2021), [http://www.cec.org/wp-content/uploads/wpallimport/files/21-1-det2\\_en.pdf](http://www.cec.org/wp-content/uploads/wpallimport/files/21-1-det2_en.pdf).

<sup>142</sup> Oceana is aware that in prior situations where a Party has informed the Secretariat of pending proceedings, the Secretariat has terminated the SEM process only for those issues that are the same as those raised in the proceedings but has continued the SEM process for those matters not encompassed by the pending proceedings.

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**Subject:** [EXTERNAL] Oceana comments on Vineyard Wind, South Fork and Potential Impacts on North Atlantic Right Whales

**Date:** Tue, 20 Apr 2021 20:18:02 +0000

**Attachments:** Oceana\_Correspondence\_to\_BOEM\_&\_NMFS\_04.20.21.pdf

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Amanda and Paul –

Writing to share some recommendations on Vineyard Wind, South Fork offshore wind projects and their potential impacts on North Atlantic Right Whales from Oceana's Chief Policy Officer, Jackie Savitz.

Thank you for consideration in advance,  
Diane

**Diane Hoskins** | Campaign Director



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April 20, 2021

*Submitted via email*

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**Re: Vineyard Wind, South Fork and Potential Impacts on North Atlantic Right Whales**

Dear Director Lefton and Acting Assistant Administrator Doremus:

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the U.S. Atlantic seaboard. For nearly twenty years, Oceana has campaigned to win strategic, directed campaigns that achieve measurable outcomes to help make our oceans more biodiverse and abundant.

Oceana has engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species, with a particular interest in effective bycatch minimization and reduction, if not elimination, of fishing gear entanglement-related death, injury, and harm to protected species, including the North Atlantic right whale (NARW). In addition, Oceana is interested in seeing the reduction, if not elimination, of vessel strike-related death, injury, and harm to NARWs. For these reasons, in 2019, Oceana launched a binational campaign in the United States and Canada to urge the respective governments to effectively enforce environmental laws to protect this critically endangered species.

For almost 15 years, Oceana has been campaigning to oppose expanded offshore oil and gas exploration and development. Offshore drilling can cause dangerous oil spills, but also continues to perpetuate energy development based on fossil fuels. The United States must shift from fossil fuel based energy sources to clean energy. Offshore wind has the potential to help bridge the transition to our clean energy future. Oceana supports responsibly developed and sited offshore wind that first avoids, then minimizes and mitigates impacts to ocean wildlife and habitat.



Oceana was pleased to see the recent announcement from the Biden Administration to deploy 30 GW of offshore wind power by 2030 while protecting biodiversity and cultural resources, including imperiled marine life such as the critically endangered North Atlantic right whale. We want to be helpful in achieving this Administration’s ambitious goal as offshore wind is critical to the transition to a clean energy future to combat the climate crisis. That said, we want to raise some serious concerns that we have with the first projects, Vineyard Wind and the nearby South Fork project which are proposed in recently identified year-round “core habitat” for the critically endangered North Atlantic right whale by the National Marine Fisheries Service’s Expert Working Group. Nearly a quarter of the population of NARWs have been present in and around the proposed project area for extended periods of time. Offshore wind activities in the area South of the Islands, as defined by the Expert Working Group, may disrupt important life functions such as feeding and breeding, as well as negatively affect the body condition that will support successful calving in the future. The most stringent mitigation measures will be necessary to ensure Vineyard Wind and other projects in this area do not further imperil the NARW or jeopardize its survival.

The science used in the development of the Environmental Analysis that supported the siting process and the more recent National Environmental Policy Act (NEPA) and Endangered Species Action (ESA) reviews for Vineyard Wind is outdated, relying on scientific information before the whales moved to this core habitat area. Because the status of NARWs has changed so dramatically, some elements of the project’s review of environmental impact and oversight are now outdated and insufficient to protect these whales.

Due to the year-round presence of North Atlantic right whales in the South of the Islands region, Oceana believes that there needs to be strong protections year-round during every phase of the project—siting, construction, operation and decommissioning, to protect this critically endangered species including:

- **Use of Best Available Science in All Decision Making:** The Bureau of Ocean Energy Management, National Marine Fisheries Service and Fish and Wildlife Service should use the best available science in all decision making, including using more recent assessments in areas where the wildlife or oceanographic characterizations have changed since the initial reviews.
- **Full compliance with existing laws:** Any offshore wind lease and project must comply with existing laws including the NEPA, ESA, the Marine Mammal Protection Act (MMPA) and the Magnuson Stevens Act (MSA). While some of the reviews and permitting may be concurrent, offshore wind development must adhere to the rigorous review process that uses best available science to consider immediate and cumulative impacts to ocean wildlife under the ESA and MMPA; critical habitat under ESA; Essential Fish Habitat and Habitat Areas of Particular Concern under MSA; and that the proper alternatives are considered through a full NEPA analysis.
- **Reduced Vessel Speed Year-Round:** Due to the risk of ship strikes to NARWs, all vessels of all sizes associated with the Vineyard Wind and South Fork projects should travel at speeds less than 10 knots at all times due to the year round presence of NARWs.

- **Achieve Reasonable Noise Reduction:** The projects should be required to use best commercially available technology and methods to minimize sound levels from pile driving.
- **Year-Round Site Visual and Acoustic Monitoring:** Each project should include a monitoring and research plan to assess and report the effects of the project on the ocean ecosystem including marine habitats, wildlife, fishery resources and protected species and changes compared to the baseline study.
- **Visual and Acoustic Clearance Zones during construction:** Clearance zones should extend at least 5,000 meters in all directions from the location of the driven pile, with a visual exclusion zone of 5,000 meters and an acoustic exclusion zone of at least 2,000 meters from the location of the driven pile and pile driving shall not be initiated within 1.5 hours of sunset or in times of low visibility. If pile driving must proceed after dark for safety reasons, the project must notify NMFS.
- **Visual and Acoustic Clearance Zones during geophysical surveys:** Clearance zones for North Atlantic right whales should extend at least 1,000 meters in all directions from the survey vessel with a shutdown of all geophysical equipment that operates between 7 Hz and 35 kHz if there is a visual detection of a North Atlantic right whale within the clearance zone or the clearance zone cannot be adequately monitored due to weather or light conditions.
- **Shut-Down Procedures:** If a North Atlantic right whale or other protected species is detected by visual or acoustic surveys within the clearance zone, pile driving should not be initiated, should be shut down if initiated, unless continued pile driving is necessary for reasons for safety, and can only resume after the lead Protected Species Observer confirms that no North Atlantic right whale or other protected species have been detected.
- **Protected Species Observers on Site and on Vessels:** Vessels and sites should also carry and use protected species observers at all times and carry and operate thermal detection for whales and other protected species when under way.
- **Provide a Decommissioning Plan:** Offshore energy projects will install hundreds of pilings and thousands of miles of cable in public waters by private for-profit companies. These companies must be responsible for removing their equipment if and when their project ends without relying on at-sea disposal or abandonment of facilities.

Thank you for considering our suggestions. We look forward to working with you to advance responsibly developed offshore wind to meet this Administration's ambitious goals while protecting biodiversity, including the critically endangered North Atlantic right whale.

Sincerely,



Jacqueline Savitz  
Chief Policy Officer, Oceana

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "tommy\_beaudreau@ios.doi.gov" <tommy\_beaudreau@ios.doi.gov>, "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Oceana note of appreciation

**Date:** Tue, 17 May 2022 21:15:36 +0000

**Attachments:** FINAL\_Deepwater\_Horizon\_Social\_Media\_Day\_of\_Action\_(1).pdf

**Inline-Images:** image001.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Tommy, Steve, Amanda, and Marissa –

I am writing to share a note of appreciation following last week's news and a few other updates that might be of interest.

1. Last week, Oceana put out the following statement, thanking President Biden: <https://usa.oceana.org/press-releases/biden-administration-cancels-three-oil-and-gas-lease-sales/>

*"Fossil fuel companies are lying when they say they need more leases for oil and gas. They already have [8 million acres that are going unused](#) offshore. No number of new leases would fix gas prices. Oil companies haven't developed the leases they already have, and they certainly don't need any more. If increased production was really the answer, they could use the leases they already own. Instead, they are taking advantage of the current situation and raking in record profits. We can't afford any more dirty and dangerous offshore drilling.*

*"Oceana applauds President Biden for upholding his campaign commitment to halt new leasing for offshore oil and gas drilling and for his leadership in increasing our domestic clean energy supply through offshore wind. President Biden must continue to lead by proposing a new Five-Year Plan with no new lease sales. Through responsibly sited and developed offshore wind, our oceans can play a major role in meeting our nation's energy needs, protecting our economy, and ensuring Americans aren't victims of future price hikes spurred by autocrats like Putin or the whims of the global oil market."*

2. An update that to memorialize 12 years since the BP *Deepwater Horizon* disaster, on April 20<sup>th</sup> Oceana and Healthy Gulf organized a social media day of action.
  - In total, we generated 59 million potential impressions, 1,300 social media posts, 14,000 likes, and 1,400 shares, including posts from key Members of Congress and partner organizations.
  - Selected posts collected in the attached document. Highlights from Members of Congress included:
    - Rep. John Sarbanes <https://twitter.com/RepSarbanes/status/1516873316522512388>
    - Rep. Katie Porter <https://twitter.com/katieporteroc/status/1516861098326061057>
    - Rep. Val Demings <https://twitter.com/RepValDemings/status/1516860513765969921>
    - Rep. Jan Schakowsky <https://twitter.com/janschakowsky/status/1516843081160667139>
    - Rep. Grace Napolitano <https://twitter.com/gracenapolitano/status/1516841334132383748>
    - Rep. Lois Frankel <https://twitter.com/RepLoisFrankel/status/1516840054181830660>
    - House Natural Resource Dems <https://twitter.com/NRDems/status/1516834031677198339>
    - Rep. Chuy García <https://twitter.com/RepChuyGarcia/status/1516814943605116941>
    - Rep. Charlie Crist <https://twitter.com/RepCharlieCrist/status/1516799478115840006>
    - Rep. Ted Lieu <https://twitter.com/RepTedLieu/status/1516793812479201284>

- Rep. Troy Carter <https://twitter.com/RepTroyCarter/status/1516791983322320900>
- Rep. Kathy Castor <https://twitter.com/usrepkcastor/status/1516880926252449793>
- Rep Jim McGovern <https://twitter.com/RepMcGovern/status/1516848316272762883>
- Rep. Frank Pallone <https://twitter.com/frankpallone/status/1516787682747236356>
- Rep. Debbie Wasserman Schultz <https://twitter.com/repdwstweets/status/1516795486564347905>

3. Finally, a few recent earned media pieces may be of interest:

- 4/20/2022, Tampa Bay Times, By Rep. Charlie Crist, [The Deepwater Horizon disaster taught us we need to protect Florida from offshore drilling](#)
  - Highlighted excerpt: *“As Russia’s attack on Ukraine continues to disrupt global oil and gas prices, the fossil fuel industry falsely claims they need more of our precious Gulf of Mexico for dirty and dangerous offshore drilling. But the industry already has over eight million acres of unused leases. In fact, about 75 percent of their total leased acreage in the ocean is currently sitting unused. More leases are not the answer. President Joe Biden promised to protect our coast by preventing new offshore drilling. I support that pledge and I look forward to working with the president to fully — and permanently — protect Florida from the dangers of offshore drilling.”*
- 4/20/2022, NowThis News, [The BP Deepwater Horizon oil rig exploded 12 years ago today](#)
- 4/23/2022, Savannah Morning News, [The Deepwater Horizon oil spill happened 12 years ago. Why are we still offshore drilling?](#)

Thank you,  
Diane

**Diane Hoskins** | Campaign Director



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Washington, DC, 20036  
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[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

# #ProtectOurCoast & #TimeToTransition

## 4/20/22 Social Media Campaign Report



### OVERVIEW

Working together, Oceana and Healthy Gulf activated stakeholders from across the country to demonstrate strong support for an end to new leasing for offshore drilling in the upcoming 5-Year Plan.

Social media posts from engaged stakeholders, including celebrities, non-profit organizations, and elected officials, called on President Biden, the Department of the Interior, and the Bureau of Ocean Energy Management to prevent new offshore drilling using the hashtags #ProtectOurCoast and #TimeToTransition.



## Social Media Stats

**More than...**

**1,300 social media posts**

**59,000,000 potential impressions**

**14,000 likes**

**1,400 shares**

**1,000 #ProtectOurCoast mentions**

**600 @POTUS, @Interior, & @BOEM mentions**

**500 #TimeToTransition mentions**



# Top Tweets



**Congressman Charlie Crist** @RepCharlieCrist · 6h

Today is 12 years since #DeepwaterHorizon - a tragic reminder of the dangers of offshore drilling.

But Big Oil is trying to use Putin's war in Ukraine as an excuse to drill even more in our precious Gulf. No way!

Read my op-ed in @TB\_Times @oceana



tampabay.com

The Deepwater Horizon disaster taught us we need to protect Florida f...  
A dozen years after the BP oil spill disaster began, we know that when they drill, they spill, and the truth washes up on our shores.



**Natural Resources Committee**

@NR Dems

12 years ago today, the Deepwater Horizon oil spill spread across the Gulf of Mexico — the worst oil spill in U.S. history.

Our reliance on oil and gas is just as dangerous as it was then. It's #TimeToTransition to renewables and #ProtectOurCoast.



© U.S. Coast Guard



# Top Tweets

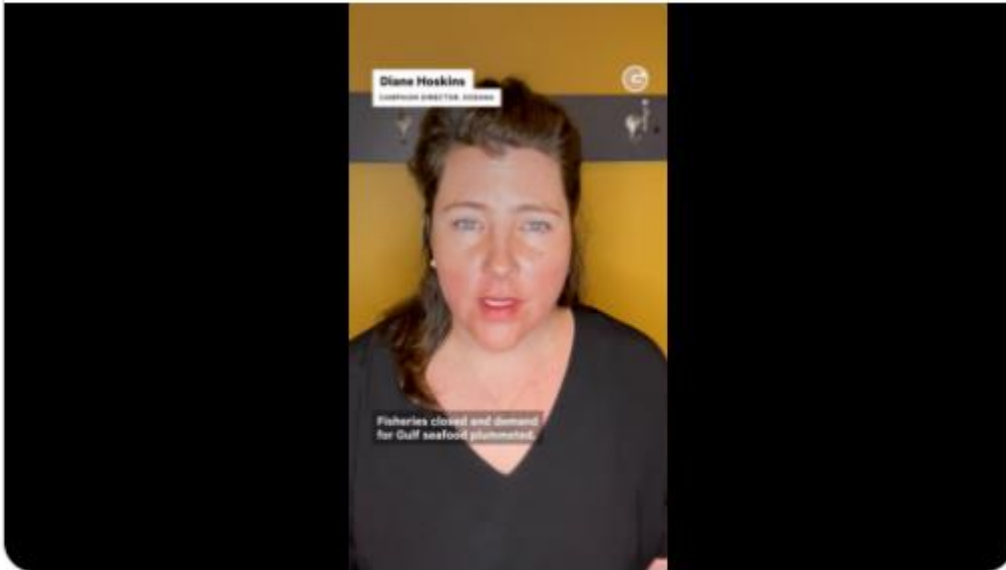


**Katie Porter** @katieporteroc · 20m

Delaying the transition to clean energy hurts our economy. Oil leaks, like the recent disaster off the coast of Huntington Beach, forced businesses to close down for weeks. We can prevent \$720+ billion in damages if we protect unleased areas from Big Oil's greed. [#ProtectOurCoast](#)

**NowThis** @nowthisnews · 1h

The BP Deepwater Horizon oil rig exploded 12 years ago today — here's how the largest oil spill in U.S. history continues to impact us [#ProtectOurCoast](#)



5 64 164



**Congressman Troy A. Carter**

@RepTroyCarter

12 years ago today, BP's [#DeepwaterHorizon](#) exploded, gushing over 200 million gallons of toxic oil into our Gulf.

Today, we remember the lives lost on this tragic day and recommit to a safer, [#CleanEnergy](#) future. [#TimetoTransition](#) [#ProtectOurCoast](#)





# Top Tweets



**Rep. Val Demings** ✓  
@RepValDemings

Offshore drilling is totally unacceptable for Florida. It's dangerous to our beaches, coastal communities, fishing, our environment, and our economy. Yet once again, some people are calling for drilling off our coast. [#ProtectOurCoast](#)



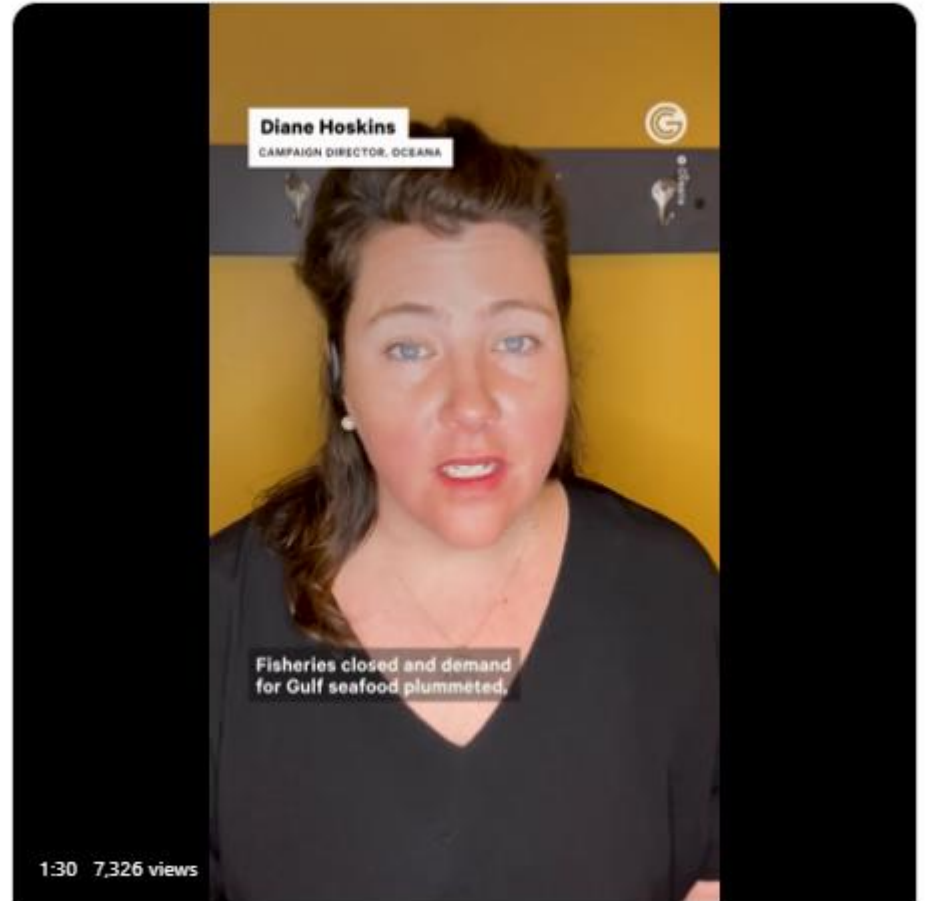
**Andrew Werthmann** @andwerth · 59m

12 years ago today BP's [#DeepwaterHorizon](#) tragedy spewed 200M+ gallons of toxic oil into the Gulf. Offshore drilling is just as dangerous to life, health and our environment as it was then. It's past [#TimeToTransition](#) to safe, renewable energy.



NowThis ✓  
@nowthisnews

The BP Deepwater Horizon oil rig exploded 12 years ago today — here's how the largest oil spill in U.S. history continues to impact us [#ProtectOurCoast](#)



**Lessons Learned From the 2010 BP Deepwater Horizon Oil Spill**  
The BP Deepwater Horizon oil rig exploded 12 years ago today — here's how the largest oil spill in U.S. history continues to impact us



# Top Tweets



Rep. Grace Napolitano  @gracenapolitano · 2h ...  
BP's Deepwater Horizon disaster 12 yrs ago caused catastrophic impacts. Today millions are struggling while Big Oil rakes in billions of \$\$\$, It's time to transition to a clean energy economy/end our dependence on fossil fuels. We must [#protectourcoast](#) & stop new offshore drilling



Jan Schakowsky  @janschakowsky · 2h ...  
BP's [#DeepwaterHorizon](#) disaster caused catastrophic impacts. Today millions are struggling while Big Oil rakes in billions. It's [#TimeToTransition](#) to a clean energy economy & end our dependence on fossil fuels. [#ProtectOurCoast](#) & end new offshore drilling.

**12 years later, our oceans and coast are still at risk. President Biden must end new offshore drilling.**

[#WeChooseNow](#) [#ProtectOurCoast](#) [#TimeToTransition](#)



# Top Tweets



**Congressman Chuy García** ✓ @RepChuyGarcia · 10m ...  
BP's #DeepwaterHorizon disaster caused catastrophic impacts. Today millions are struggling while Big Oil rakes in billions. @POTUS, @Interior, @BOEM: It's #TimeToTrantion to a clean energy economy & end our dependence on fossil fuels. #ProtectOurCoast & end new offshore drilling.



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**Rep. Debbie Wasserman Schultz** ✓ @RepDWStweets · 1h ...  
12 yrs ago, BP's #DeepwaterHorizon exploded, gushing >200M gallons of toxic oil into the Gulf, killing 11. And offshore drilling still threatens our coasts, especially in #FLA. I work OT to protect our coasts from drilling. More than ever it's #TimeToTransition to clean energy.



© U.S. Coast Guard



# Top Tweets



**Rep. Frank Pallone** @FrankPallone · 22h

12 years ago today BP's #DeepwaterHorizon exploded in the Gulf of Mexico, releasing more than 200 million gallons of toxic oil with catastrophic impacts for Gulf communities. This is exactly why I've led the effort in Congress to permanently ban offshore drilling in the Atlantic.

3 11 32



**Rep. Frank Pallone** @FrankPallone · 22h

The Jersey Shore and coastal communities along the Atlantic Coast depend on healthy ecosystems to thrive. An oil spill would devastate the economic vitality of our shoreline.

It's time to protect our coast from this dangerous practice.



**US Rep Kathy Castor** @USRepKCastor · 17h  
12 years ago today, the BP oil disaster devastated the Gulf coast economy and natural environment: 11 lives lost, 200 million gallons of spilled oil. Hundreds of injured workers. And billions in economic damage.



2 18 40



**US Rep Kathy Castor** @USRepKCastor

I'm proud to be a leader in the fight to protect Floridians from the harms of drilling off our coasts.

And I won't stop fighting until my bipartisan bill to permanently #ProtectOurCoasts is turned into law.



castor.house.gov  
Rep. Castor Reintroduces Bipartisan Legislation to Permanently Ban Drilling Off Florida As Expira...



**Rep. Jim McGovern** @RepMcGovern  
12 years ago today, BP's #DeepwaterHorizon explosion killed 11 workers and released 200 million gallons of crude oil into the Gulf of Mexico. The catastrophic spill, a result of corporate greed and negligence, devastated an entire ecosystem that still suffers today. 1/4



2:36 PM - Apr 20, 2022 - Twitter Web App

13 Retweets 22 Likes

Reply Retweet Like Share

Tweet your reply



**Rep. Jim McGovern** @RepMcGovern · 18h  
Replying to @RepMcGovern  
Americans learned the hard way that offshore drilling compromises coastal communities' physical and economic well-being so Big Oil can rake in greater profits.

Offshore drilling is just as dirty and dangerous now as it ever was. 1/4

1 1 1



**Rep. Jim McGovern** @RepMcGovern · 18h  
Oil companies will do whatever they can to open new drilling sites—meaning to the public that more offshore drilling will help address rising costs at the pump.

Here's the truth: Energy independence can't be found at the bottom of a new oil well. 1/4

1 1 1



instagram.com  
U.S. Rep. James P. McGovern: On energy security, don't buy big oil's... let fossil fuel corporations and their corrupt backers in Congress an... asking themselves a different question: how can they exploit this...

1 1 1



**Rep. Jim McGovern** @RepMcGovern · 18h  
With the new 5-year offshore leasing program set to begin in June, @ACTUS Biden, @renew, and @BOSM have an opportunity to #ProtectOurCoasts and put #PeopleOverProfits. It's high time we save America off fossil fuels and power clean energy by ending new drilling. 1/4



# Top Tweets



**Rep. Lois Frankel**  @RepLoisFrankel · 2h

12 years ago BP's [#DeepwaterHorizon](#) exploded, spilling 200M+ gallons of toxic oil into the Gulf. The catastrophe devastated Gulf of Mexico communities & cost them more than \$500M in losses.

It's [#TimeToTransition](#) to clean energy & [#ProtectOurCoast](#) by ending offshore drilling.

...



**Rep. John Sarbanes**  @RepSarbanes · 31m

Today marks 12 years since the BP [#DeepwaterHorizon](#) oil spill caused serious harm to our environment and public health. Transitioning to a clean energy economy will build energy independence, create jobs and prevent terrible events like this from reoccurring. [#ProtectOurCoast](#)

...



**Oceana**  @oceana · Apr 20

The dirty & dangerous offshore oil industry is sitting on 8 million unused acres but telling us they need more. Who do you believe?

[@POTUS](#) [@Interior](#) [@BOEM](#) [#ProtectOurCoast](#)

...



**Earthjustice** 

@Earthjustice

...

BP's [#DeepwaterHorizon](#) disaster caused catastrophic impacts. Today millions are struggling while Big Oil rakes in billions. [@POTUS](#) [@Interior](#) [@BOEM](#): It's [#TimeToTransition](#) to a clean energy economy & end our dependence on fossil fuels. [#ProtectOurCoast](#) & end new offshore drilling.



# Top Tweets



**Green New Deal Network**  
@GND\_Network



BP's [#DeepwaterHorizon](#) catastrophe devastated Gulf of Mexico communities & stuck everyday people with the cost of their greed. Now it's [#TimeToTransition](#) @POTUS, @Interior, @BOEM must [#ProtectOurCoast](#), end new offshore drilling

11:00 AM · Apr 20, 2022 · Twitter Web App



**#PutHousingFirst** @GNOHA · 2h



12 years ago, BP's [#DeepwaterHorizon](#) drilling disaster devastated Gulf communities & stuck everyday people with the cost of their greed. Now it's [#TimeToTransition](#) @POTUS, @Interior, @BOEM must [#ProtectOurCoast](#) & make sure there are [#NoNewOilLeases](#) in the Gulf



**Healthy Gulf** @HealthyGulf · 2h



"@GulfSouth4GND is coming together to say NO MORE NEW LEASES in the Gulf. The Gulf has always been a sacrifice zone, and we won't stand for it anymore!" - Dustin Renaud, Healthy Gulf [#GulfSouthForAGreenNewDeal](#) [#ProtectOurCoast](#) [#WeChooseNow](#) [#BP12](#)



# Top Tweets



**onlyone** @onlyone · 44m

On April 20, 2010, a surge of natural gas ripped through the Deepwater Horizon oil rig. The subsequent explosion and fire killed 11 workers and created the largest oil spill in U.S. History.

12 years later, drilling continues to threaten U.S. coastlines.  
[#ProtectOurCoast](#)



**NRDC** @NRDC · 1h

12 years ago, @BP\_America's Deepwater Horizon disaster caused catastrophic impacts that are still being felt today.

It's [#TimeToTransition](#) to a clean energy economy & end our dependence on fossil fuels.

[@POTUS](#), [@Interior](#), [@BOEM](#): [#ProtectOurCoast](#) & end new offshore drilling!

**Gulf Coast Center for Law & Policy (GCCLP)** @GCCLP · 3h

1/ Here's what you need to know about the [#BritishPetroleum](#) (BP) Oil Spill- a disaster that CONTINUES to destroy the lives of people in the Gulf South.

[Show this thread](#)



# Top Tweets



**Environment Florida** @EnvFL · 41m

Oil doesn't respect state boundaries, and as clean, renewable energy is on the rise, it's time to move away from this dangerous, dirty energy production that puts our coast at risk. It's time to [#ProtectOurCoast](#). 3/



environmentfloridacenter.org

Renewables on the Rise

A decade of progress toward a clean energy future

...



**LCV – League of Conservation Voters**    
@LCVoters

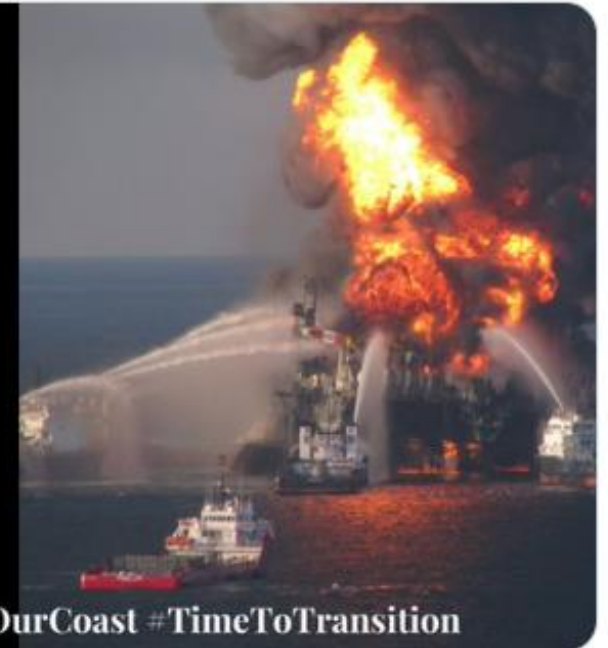
...

On April 20, 2010, BP's Deepwater Horizon exploded in the Gulf of Mexico, unleashing the worst oil spill in U.S. history.

12 years later, offshore drilling is just as dirty and dangerous as it was then. [@POTUS](#), it's [#TimeToTransition](#) and end new offshore drilling.

**12 years later, our oceans and coast are still at risk. President Biden must end new offshore drilling.**

[#WeChooseNow](#) [#ProtectOurCoast](#) [#TimeToTransition](#)





# Top Tweets



**Institute for Policy Studies** @IPS\_DC · 30m

12 years ago today, BP's [#DeepwaterHorizon](#) rig exploded, gushing over 200,000,000 gallons of toxic oil into the Gulf.

Offshore drilling still threatens our coasts now. It's [#TimeToTransition](#) to clean energy. [@POTUS](#), [@Interior](#) & [@BOEM](#) must [#ProtectOurCoast](#) and end new drilling.



**DNC Environment and Climate Council**

@DNCClimate

BP's [#DeepwaterHorizon](#) tragedy began 12 years ago today, sending 200M+ gallons of toxic oil into the Gulf. Offshore drilling is just as dangerous to life, health and our environment as it was then. It's past [#TimeToTransition](#) to safe, renewable energy.



# Top Tweets



**Sierra Club** @SierraClub · 3m

12 years ago, BP's [#DeepwaterHorizon](#) catastrophe killed 11 people & devastated Gulf of Mexico communities. The hit on tourism & more led to a loss of >\$500M. Now it's [#TimeToTransition](#) @POTUS, @Interior, @BOEM must [#ProtectOurCoast](#), end new offshore drilling



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**Sierra Club** @SierraClub · 1h

12 years ago BP's [#DeepwaterHorizon](#) exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's [#TimeToTransition](#) to clean energy @POTUS @Interior @BOEM must [#ProtectOurCoast](#) & end new drilling.



ALT

© US Navy



# Top Tweets



**Southern Alliance for Clean Energy** @cleanenergyorg · 36m ...  
It's projected it will take 50 -100 years for the deep ocean ecosystem to recover the BP's Deepwater Horizon spill. We cannot let this happen again. Join us on May 21 at a #HandsAcrossTheSand event to stand against fossil fuels and #ProtectOurCoast.



theinvadingsea.com

Florida's coasts at risk on anniversary of BP's Deepwater Horizon oil sp...  
Twelve years after the BP Deepwater Horizon oil spill disaster, American Petroleum Institute CEO Mike Sommers is urging Florida leaders to ...



**Business Alliance Protecting the Atlantic Co...** @AtlanticBAP... · 1h ...  
Coastal economies rely on clean coasts and a healthy ocean to thrive, and as we remember BP's #DeepwaterHorizon disaster, we must remind President Biden to #ProtectOurCoast and keep our coastal economy safe.



© U.S. Coast Guard



# Top Tweets



**Florida Conservation Voters** @FCVoters · 22m

12 years ago BP's [#DeepwaterHorizon](#) exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's [#TimeToTransition](#) to clean energy @POTUS @Interior @BOEM must [#ProtectOurCoast](#) & end new drilling.




**Sierra Club Florida** @SierraClubFL · 38m

12 years ago BP's [#DeepwaterHorizon](#) exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's [#TimeToTransition](#) to clean energy @POTUS @Interior @BOEM must [#ProtectOurCoast](#) & end new drilling.



# Top Tweets

 **Oceana in Florida** @Oceana\_in\_FL · 46m  
Thank you @RepCharlieCrist for continuing to fight for a healthy and thriving Gulf of Mexico. We must #ProtectOurCoast from dirty and dangerous offshore drilling.

#ProtectOurCoast #TimeToTransition #DeepwaterHorizon

 **Congressman Charlie Crist** @RepCharlieCrist · 1h  
Today is 12 years since #DeepwaterHorizon - a tragic reminder of the dangers of offshore drilling.

But Big Oil is trying to use Putin's war in Ukraine as an excuse to drill even more in our precious Gulf. No way!

Read my op-ed in @TB\_Times @oceana

tampabay.com/opinion/2022/0...



**Surfrider Foundation** @Surfrider · 19m

12 years ago today, the BP #DeepwaterHorizon oil rig exploded in the Gulf of Mexico. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches.

Take action now and urge Congress to protect our coasts!

[hubs.la/Q018sSmd0](https://hubs.la/Q018sSmd0)



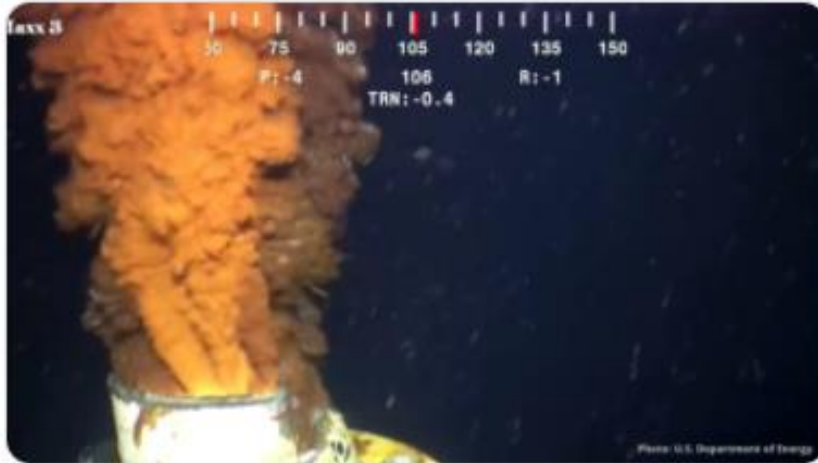
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# Top Tweets



**Center for Biological Diversity** @CenterForBioDiv · 1h ...  
BP's Deepwater Horizon catastrophe devastated Gulf of Mexico communities and stuck everyday people with the cost of corporate greed. Now it's #TimeToTransition. @POTUS, @Interior and @BOEM must #ProtectOurCoast and end new offshore drilling, #WeChooseNow #DeepwaterHorizon



**Presente.Org** @PresenteOrg · 2m ...  
12 years ago BP's #DeepwaterHorizon exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's #TimeToTransition to clean energy @POTUS @Interior @BOEM must #ProtectOurCoast & end new drilling.

12 years later, our oceans and coast are still at risk. **President Biden must end new offshore drilling.**

#WeChooseNow #ProtectOurCoast #TimeToTransition



**Chispa Florida** @ChispaFlorida · 1h ...  
BP's #DeepwaterHorizon disaster caused catastrophic impacts. Today millions are struggling while Big Oil rakes in billions. @POTUS @Interior @BOEM: It's #TimeToTrantion to a clean energy economy & end our dependence on fossil fuels. #ProtectOurCoast & end new offshore drilling.



# Top Tweets



**Sierra Club** @SierraClub · 26m ...  
BP's #DeepwaterHorizon disaster caused catastrophic impacts. Today millions are struggling while Big Oil rakes in billions. @POTUS @Interior @BOEM: It's #TimeToTransition to a clean energy economy & end our dependence on fossil fuels. #ProtectOurCoast & end new offshore drilling.



**Rethink Energy FL** @RethinkEnergyFL · 1h ...  
12 years ago BP's #DeepwaterHorizon exploded, gushing more than 200 million gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's #TimeToTransition to clean energy. We must #ProtectOurCoast & end new drilling.



# Top Tweets



**CBD Climate** @CBD\_Climate · 37m

12 years ago BP's #DeepwaterHorizon exploded, gushing >200M gallons of toxic oil into the Gulf.

Offshore drilling still threatens our coasts & communities. It's well past #TimeToTransition to clean energy. @POTUS @Interior @BOEM must #ProtectOurCoast and end drilling for good.



**Farmworker Assoc. FL** @FWAFL · 3m

Make today 4/20 a Radical Day of Reflection as we remember the #BP Drilling Disaster that claimed the lives of 11 workers, spilled >200 million gallons of oil, and devastated the Gulf. Register here: [bit.ly/BP-12-Years](https://bit.ly/BP-12-Years) #TimeToTransition #WeChooseNow





# Top Tweets



**Defenders of Wildlife** ✓ @Defenders · 12m ...

12 years ago today, BP's [#DeepwaterHorizon](#) exploded & 200M+ gallons of toxic oil gushed into the Gulf, killing [#wildlife](#) & impacting communities. Offshore drilling is still a threat & must be stopped. RT to tell [@POTUS](#), [@Interior](#) & [@BOEM](#) to [#ProtectOurCoast](#), [#oceans](#) & wildlife!



**World Ocean Day** ✓ @WorldOceansDay · 1h ...

12 years ago BP's [#DeepwaterHorizon](#) exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's [#TimeToTransition](#) to clean energy [@POTUS](#) [@Interior](#) [@BOEM](#) must [#ProtectOurCoast](#) & end new drilling.

12 years later, our oceans and coast are still at risk. **President Biden must end new offshore drilling.**

[#WeChooseNow](#) [#ProtectOurCoast](#) [#TimeToTransition](#)



# Top Tweets



**Florida Conservation Voters** @FCVoters · 22m  
12 years ago BP's #DeepwaterHorizon exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's #TimeToTransition to clean energy @POTUS @Interior @BOEM must #ProtectOurCoast & end new drilling.



**NRDC Action Fund** @NRDC\_Action · 1h  
12 years ago BP's #DeepwaterHorizon exploded, gushing over 200 million gallons of toxic oil into the Gulf.

Offshore drilling still threatens our coasts. It's time to transition to clean energy.

@POTUS, @Interior, & @BOEM must get it done and end new drilling.  
#ProtectOurCoast

**Natural Resources Committee** @NR Dems · 2h  
12 years ago today, the Deepwater Horizon oil spill spread across the Gulf of Mexico — the worst oil spill in U.S. history.

Our reliance on oil and gas is just as dangerous as it was then. It's #TimeToTransition to renewables and #ProtectOurCoast.



# Top Tweets



**OxfamAmerica** @OxfamAmerica · 2h  
12 years ago BP's #DeepwaterHorizon exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts and it's #TimeToTransition to clean energy. We're overdue to #ProtectOurCoast and end new drilling.



**Chispa Florida** @ChispaFlorida · 1h  
12 years ago BP's #DeepwaterHorizon exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's #TimeToTransition to clean energy @POTUS @Interior @BOEM must #ProtectOurCoast & end new drilling.

**12 years later, our oceans and coast are still at risk. President Biden must end new offshore drilling.**

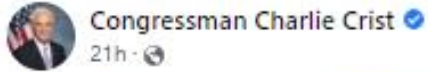
#WeChooseNow #ProtectOurCoast #TimeToTransition



**350 Triangle** @350Triangle · 2h  
"Gulf South for a Green New Deal is coming together to say NO MORE NEW LEASES in the Gulf. The Gulf has always been a sacrifice zone, and we won't stand for it anymore!" - Dustin Renaud, Healthy Gulf  
#GulfSouthForAGreenNewDeal #ProtectOurCoast #WeChooseNow



# Top Facebook Posts



**Congressman Charlie Crist** ✓

21h · 🌐

...

Today marks 12 years since #DeepwaterHorizon - a tragic reminder of the dangers of offshore drilling.

But Big Oil is trying to use Putin's war in Ukraine as an excuse to drill even more in our precious Gulf. No way!

Read my op-ed with [Oceana](#) in [Tampa Bay Times](#).



TAMPABAY.COM

The Deepwater Horizon disaster taught us we need to protect Florida from offshore drilling | Column

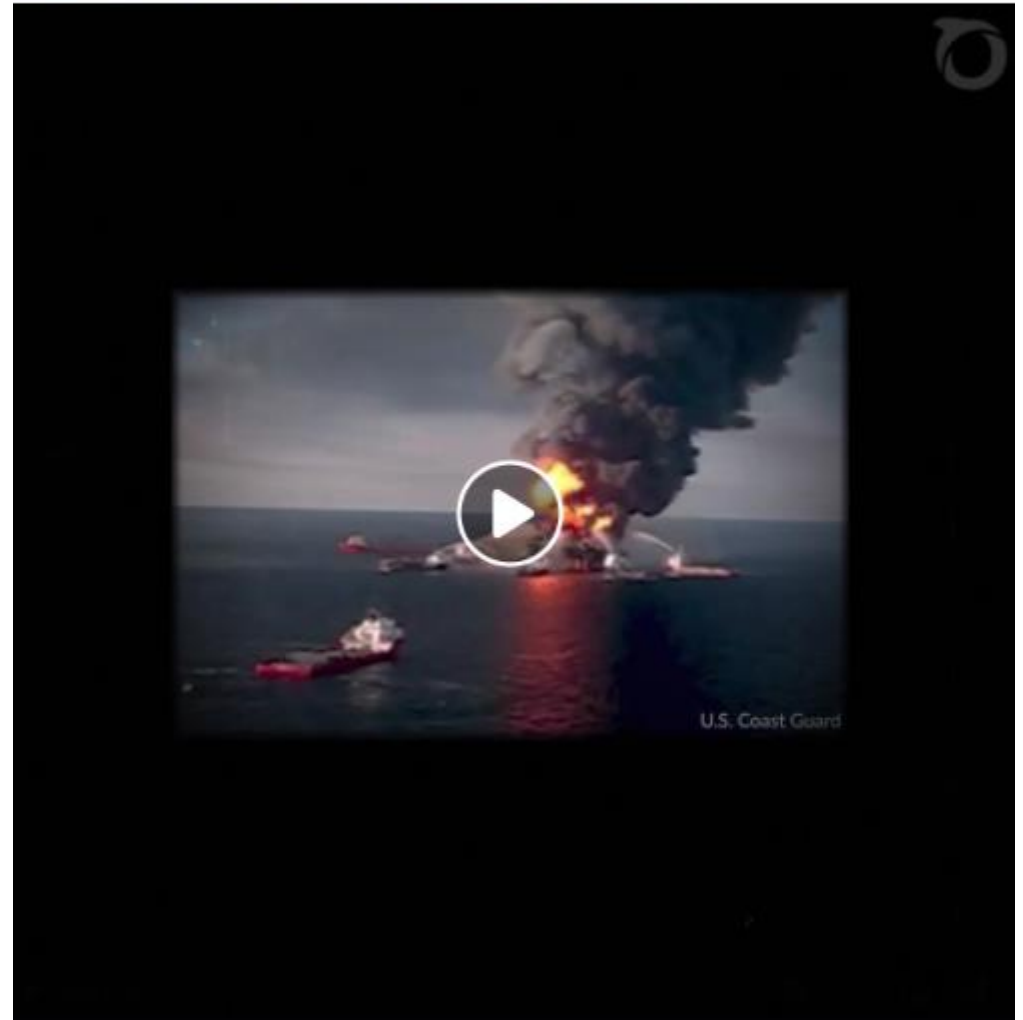
Learn more



Yesterday at 8:03 AM · 🌐

...

When the BP #DeepwaterHorizon exploded in the Gulf of Mexico, the blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, the oil and gas industry has failed to clean up their act while offshore drilling continues to threaten our coasts. While Big Oil rakes in record profits, they're sitting on 8 million unused acres, but claiming they need more. It's time to #ProtectOurCoast from new offshore drilling and it's time for [President Joe Biden](#), U.S. Department of the Interior & [Bureau of Ocean Energy Management](#) to act.



OCEANA.ORG  
Oil Lies

Learn more



# Top Facebook Posts



Congressman Chuy García

1m · 🌐

...

12 years ago today, the bp [#DeepwaterHorizon](#) exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's [#TimeToTransition](#) to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. [President Biden](#), [U.S. Department of the Interior](#), and [Bureau of Ocean Energy Management](#) must finally [#ProtectOurCoast](#) and end new offshore drilling.



© U.S. Coast Guard



Rep. Lois Frankel

19h · 🌐

...

12 years ago BP's [#DeepwaterHorizon](#) exploded, spilling 200M+ gallons of toxic oil into the Gulf. The catastrophe devastated Gulf of Mexico communities & cost them more than \$500M in losses. It's [#TimeToTransition](#) to clean energy & [#ProtectOurCoast](#) by ending offshore drilling.



Rep. Debbie Wasserman Schultz

1h · 🌐

...

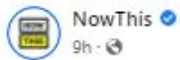
12 yrs ago, BP's [#DeepwaterHorizon](#) exploded, gushing >200M gallons of toxic oil into the Gulf, killing 11. And offshore drilling still threatens our coasts, especially in [#FLA](#). I work overtime to protect our coasts from drilling. More than ever it's [#TimeToTransition](#) to clean energy.



© U.S. Coast Guard

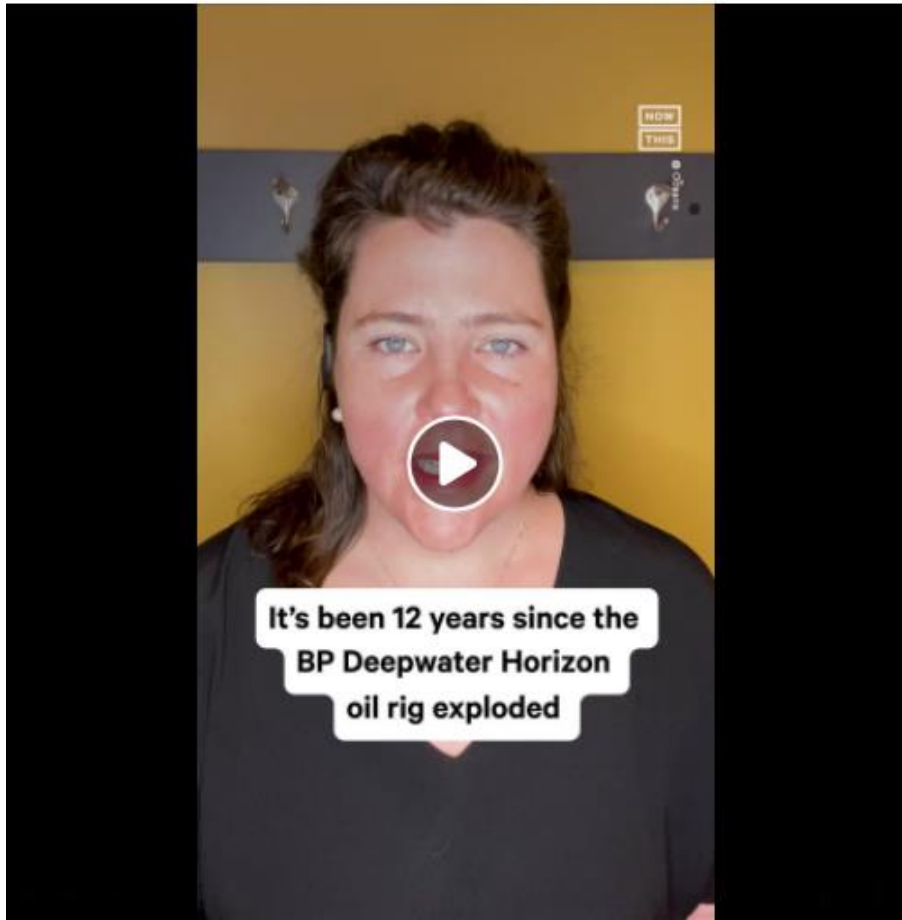


# Top Facebook Posts



The BP Deepwater Horizon oil rig exploded 12 years ago today — here's how the largest oil spill in American history continues to impact us [#ProtectOurCoast](#)

via [NowThis Earth](#)

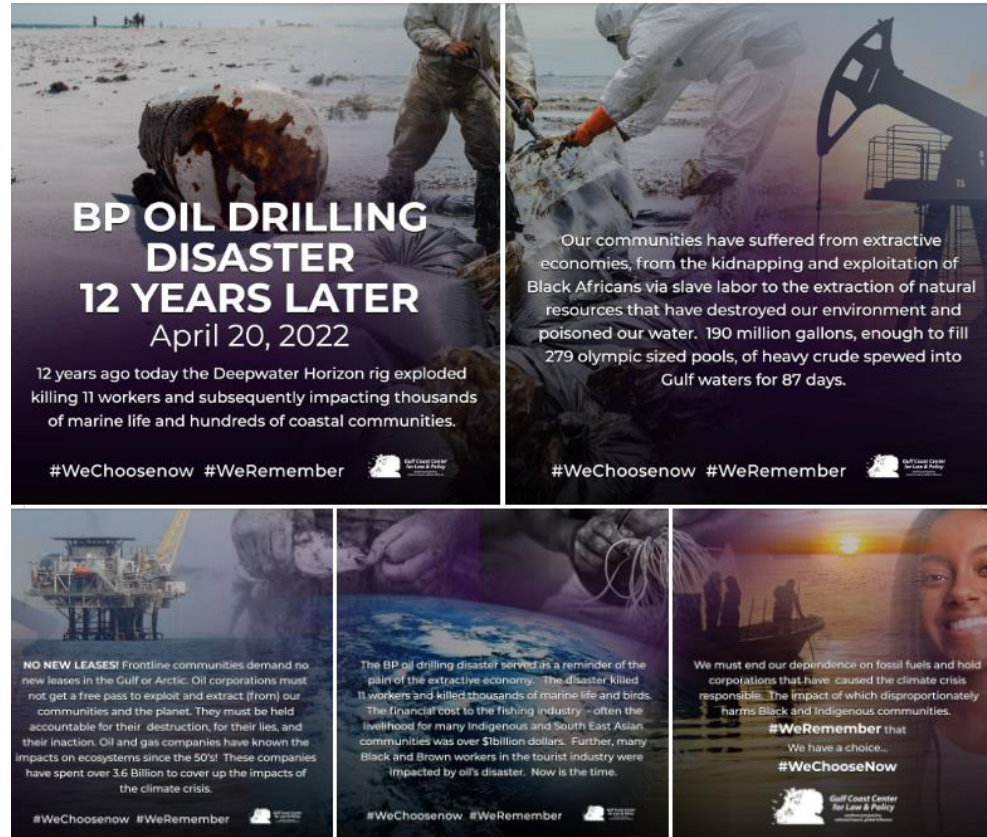


NRDC

1h · 🌐

12 years ago, [bp](#)'s Deepwater Horizon disaster caused catastrophic impacts that are still being felt today.

It's [#TimeToTransition](#) to a clean energy economy & end our dependence on fossil fuels. [#ProtectOurCoast](#) & end new offshore drilling! 🙌



**Gulf Coast Center for Law & Policy - GCCLP**

2h · 🌐

BP Oil Drilling Disaster 12 YEARS LATER - April 20, 2022 - 12 years ago today the Deepwater Horizon rig exploded killing 11 workers and subsequently impacting t... [See more](#)



# Top Facebook Posts



League of Conservation Voters

2h · 🌐

...

On April 20, 2010, BP's Deepwater Horizon exploded in the Gulf of Mexico, unleashing the worst oil spill in U.S. history.

12 years later, offshore drilling is just as dirty and dangerous as it was then. [President Joe Biden](#), it's time to end new offshore drilling.

**12 years later, our oceans and coast are still at risk. President Biden must end new offshore drilling.**

**#WeChooseNow #ProtectOurCoast #TimeToTransition**



Healthy Gulf ✓

11h · 🌐

...

On April 20, 2010, BP's [#DeepwaterHorizon](#) oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans, but [President Joe Biden](#) can end drilling right now. The Department of the Interior and The Bureau Of Ocean Energy Management must end new offshore drilling and [#ProtectOurCoast](#). It's [#TimeToTransition](#) to renewable energy, and [#WeChooseNow](#).

**12 years later, our oceans and coast are still at risk. President Biden must end new offshore drilling.**

**#WeChooseNow #ProtectOurCoast #TimeToTransition**



# Top Facebook Posts



Business Alliance for Protecting the Atlantic

12h · 🌐

...

BP's #DeepwaterHorizon catastrophe devastated Gulf of Mexico communities & small businesses paid the price. Offshore drilling threatens crucial drivers of our economy like tourism, recreation, and fishing, which rely on clean coasts and a healthy ocean. 12 years later, [President Joe Biden](#), [U.S. Department of the Interior](#), and [Bureau of Ocean Energy Management](#) must finally #ProtectOurCoast and end new offshore drilling.



© U.S. Coast Guard



Chispa TX

17h · 🌐

...

Tomorrow will be the 12 years since the BP drilling disaster killed 11 men & gushed >200M gallons of toxic oil into the Gulf. Offshore drilling still threatens our communities. That's enough delaying the change to safe and renewable energy.

#ProtectOurCoast & say #NoNewOilLeases.



# BP 12 Memorial

## A DAY OF RADICAL REFLECTION





# Top Facebook Posts



Alliance for Affordable Energy

14m · 🌐



Join the MS Hub of [Gulf South for a Green New Deal](#) for a Radical Day of Reflection as we remember the [#BP](#) Drilling Disaster that claimed the lives of 11 workers, spilled more than 200 million gallons of oil, and devastated the Gulf.

Register here: [bit.ly/BP-12-Years](http://bit.ly/BP-12-Years)

12 years later, offshore oil drilling continues to threaten our Gulf Coast communities, workers, wildlife, and tourism & fishing economies.... See more



GNOHA

2h · 🌐



[#WeChooseNow](#). On the 12th memorial of the BP Drilling Disaster, we are saying it's [#TimeToTransition](#). Let's make infrastructure investments in renewable energy now that will leverage our coastal sunshine, tides, and wind for a just transition to a non-extractive, clean energy economy. [#ProtectOurCoast](#) [#NoNewLeases](#)



# Top Facebook Posts



Florida Conservation Voters

43m · 🌐

...

12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTransition to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally #ProtectOurCoast and end new offshore drilling.

12 years later, our oceans and coast are still at risk. President Biden must end new offshore drilling.

#WeChooseNow #ProtectOurCoast #TimeToTransition



Oceana in Florida

29m · 🌐

...

Thanks to [The Invading Sea](#), Susan Glickman, [Southern Alliance for Clean Energy](#) and our many coalition partners working together to [#ProtectOurCoast](#). Join a [Hands Across The Sand](#) event near you on May 21st to say NO to offshore drilling and YES to clean renewable energy. Learn more and take action: <https://oceana.org/actnow>




THEINVADINGSEA.COM

Florida's coasts at risk on anniversary of BP's Deepwater Horizon oil spill | The Invading Sea



# Top Facebook Posts

 Ocean Conservation Research - OCR  
14h · 🌐

On April 20, 2010, BP's #DeepwaterHorizon oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans.

Now is the #TimeToTransition and President Joe Biden, U.S. Department of the Interior, and Bureau of Ocean Energy Management must end new offshore drilling and #ProtectOurCoast.



 Surfrider Foundation  
16m · 🌐

12 years ago today, the BP #DeepwaterHorizon oil rig exploded in the Gulf of Mexico. The blast killed 11 people and triggered what would become the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now more than ever, it's imperative we transition into a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches.

Congressional leaders have introduced legislation to permanently ban new offshore oil and gas drilling in U.S. waters including the Atlantic, Pacific, Eastern Gulf of Mexico, and Arctic Ocean. Passing these bills is critical to protecting our marine ecosystems, as well as coastal recreation and tourism opportunities across the United States.

Visit <https://hubs.la/Q018sSV40> to take action and urge Congress to #ProtectOurCoast and end new offshore drilling.



# Top Facebook Posts



Don't Drill SC

1h · 🌐

...

On April 20, 2010, BP's #DeepwaterHorizon oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans. Now is the #TimeToTransition and President Joe Biden U.S. Department of the Interior and Bureau of Ocean Energy Management must end new offshore drilling and #ProtectOurCoast.



Sierra Club Florida

41m · 🌐

...

Today marks the 12th anniversary of Deepwater Horizon. On April 20, 2010, BP's #DeepwaterHorizon oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans. Now is the #TimeToTransition and President Joe Biden U.S. Department of the Interior and Bureau of Ocean Energy Management must end new offshore drilling and #ProtectOurCoast #notofossilfuels #yestocleanenergy

"The BP Deepwater Horizon disaster made it clear: Oil spills do not respect state boundaries. But despite these risks to Florida, the oil and gas industry is still pushing to expand its offshore drilling footprint in the Gulf of Mexico. This was, is, and will remain, an existential threat to our way of life in Florida. When they drill, they spill, and coastal communities are done paying the price for Big Oil's recklessness."

Read Charlie Representative Charlie Crist's Column in the Tampa Bay Times here:

[https://www.tampabay.com/.../the-deepwater-horizon.../...](https://www.tampabay.com/.../the-deepwater-horizon.../)



i

TAMPABAY.COM

The Deepwater Horizon disaster taught us we need to protect Florida from offshore drilling | Column



# Top Facebook Posts



12 years ago today, the BP [#DeepwaterHorizon](#) exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's [#TimeToTransition](#) to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally [#ProtectOurCoast](#) and end new offshore drilling.



Join [Gulf South for a Green New Deal - Mississippi](#) TODAY at 12 pm for a Radical Day of Reflection as we remember the BP Drilling Disaster that claimed the lives of 11 workers, spilled more than 200 million gallons of oil into the Gulf, and devastated Gulf communities and wildlife.

- When: Wednesday, April 20 at 12pm CDT / 1pm EDT / 10am PDT
- Where: Register here: <http://bit.ly/BP-12-Years>
- What & Who: The 30 minute event hosted by Mississippi for a Green New Deal will include the following:

- \*A prayer and reflection by Pastor Harry Joseph on the 11 lives lost
- \*A legal update on offshore oil lease sales in the Gulf in light of a January legal victory by lead attorney Brittany Hardy of Earthjustice
- \*A spoken word poem by Artis Burney of the [Cosmic Poetry Sanctuary MS](#).
- \*An update on the Eastern Gulf Moratorium and efforts to make it permanent by Hunter Miller from Oceana
- \*An update on plans for an offshore wind farm in the Gulf provided by Dustin Renaud of [Healthy Gulf](#).

We hope you can join us for reflection and learning 12 years after the worst environmental disaster in U.S. history!

[#TimeToTransition](#) [#WeChooseNow](#) [#ProtectOurCoast](#)



# Top Facebook Posts



Surfrider Foundation Space Coast Chapter  
21h · 🌐

On April 20, 2010, BP's [#DeepwaterHorizon](#) oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans. Now is the [#TimeToTransition](#) and @POTUS @USInterior and @BureauOfOceanEnergyManagement must end new offshore drilling and [#ProtectOurCoast](#).



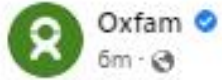
Southern Alliance for Clean Energy  
1m · 🌐

BP's [#DeepwaterHorizon](#) tragedy was 12 years ago, but offshore drilling is just as dirty and dangerous now as it was then. @POTUS, it's time to [#ProtectOurCoast](#) once and for all. Ending new offshore drilling will protect coastal communities from toxic oil spills, help us tackle the climate crisis, and maintain millions of jobs that rely on a healthy ocean. [#TimeToTransition](#) to a clean energy economy.

[U.S. Department of the Interior Bureau of Ocean Energy Management](#)



# Top Facebook Posts



Oxfam

6m · 🌐

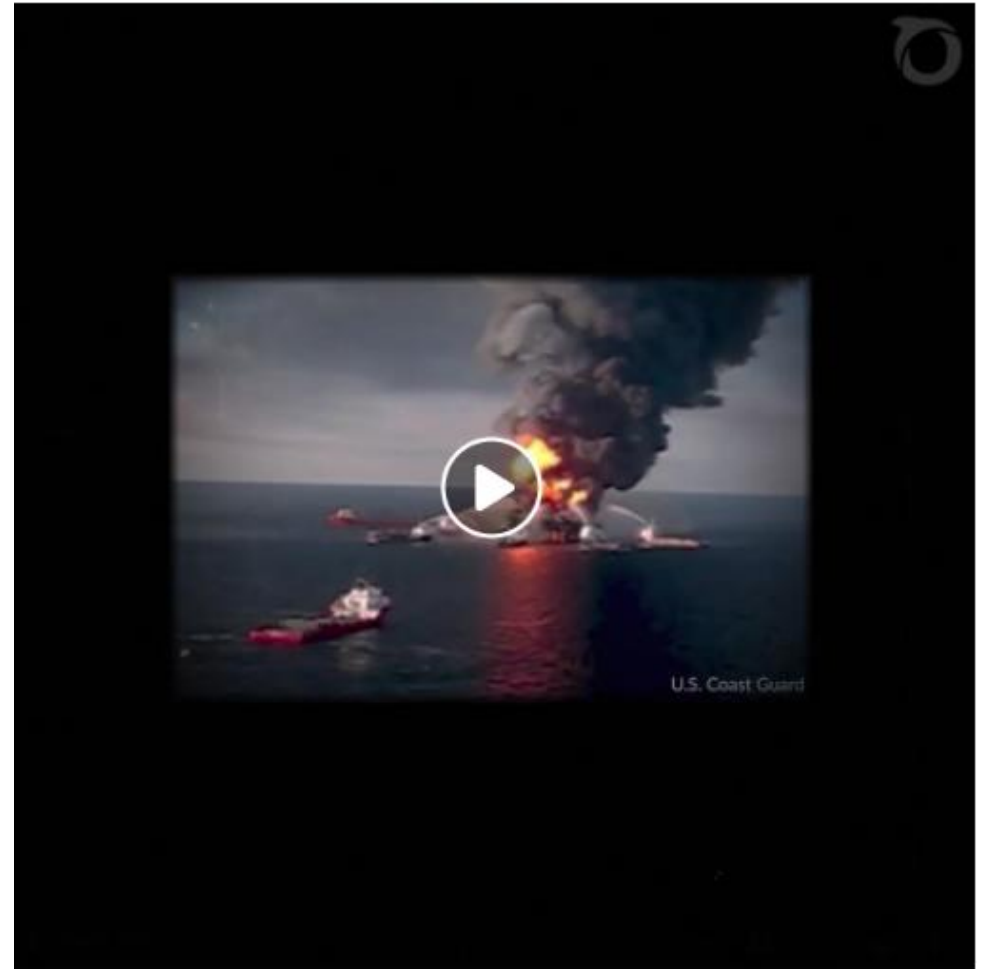
12 years ago BP's Deepwater Horizon exploded, gushing >200M gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts and it's [#TimeToTransition](#) to clean energy. We're overdue to [#ProtectOurCoast](#) and end new drilling.



National Business Coalition for the Oceans

37m · 🌐

ACT NOW: we're hosting a day of action TODAY, calling on our elected leaders to [#ProtectOurCoast](#) from new offshore drilling. The 12th anniversary of [#DeepwaterHorizon](#) is a reminder that it's [#TimeToTransition](#) to clean energy. Here's how you can participate: <https://bit.ly/37sOcTU>



OCEANA.ORG

Oil Lies

Learn more

Oceana

4h · 🌐

When the BP [#DeepwaterHorizon](#) exploded in the Gulf of Mexico, the blast killed 11 people and set off the worst oil spill in U.S. history. In the years since tha... See more



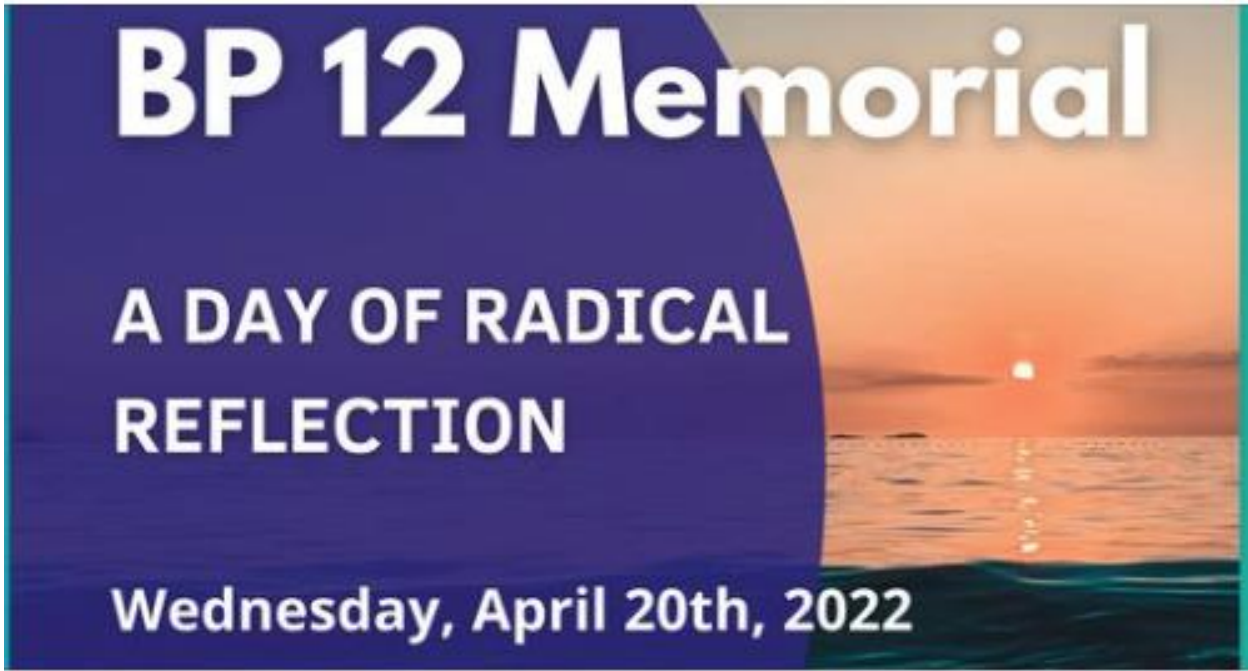
# Top Facebook Posts



350 Pensacola

April 18 at 3:14 PM · 🌐

Take time out this Wednesday in remembrance of the BP disaster at 12 years. [#TimeToTransition](#) [#WeChooseNow](#) [#ProtectOurCoast](#)



WED, APR 20 AT 1 PM EDT

BP12 A Day of Radical Reflection + Action

7 people going

☆ Interested



Women Working for Oceans - W2O

21h · 🌐

12 years ago, on April 20, 2010, the BP [#DeepwaterHorizon](#) exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history.

In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's [#TimeToTransition](#) to a clean energy economy.

We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally [#ProtectOurCoast](#) and end new offshore drilling.

[#science](#) [#oil](#) [#offshoredrilling](#) [#oceans](#) [#climatechange](#) [#climatecrisis](#) [#climateaction](#) [#zerowaste](#) [#climatechange](#) [#endoffshoredrilling](#)





# Top Facebook Posts



Stop Offshore Drilling in the Atlantic - SODA

15h · 🌐

...

It is hard to believe that it has been twelve years, but we must all remember that fateful day, April 20, 2010, BP's [#DeepwaterHorizon](#) oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans. Now is the [#TimeToTransition](#) and @POTUS @USInterior and @BureauOfOceanEnergyManagement must end new offshore drilling and [#ProtectOurCoast](#).

THERE MUST NEVER BE DRILLING FOR OIL & GAS OR ANY INFRASTRUCTURE SUPPORTING THE PETROLEUM INDUSTRY IN OUR ATLANTIC OCEAN!!!



Center for Biological Diversity

1h · 🌐

...

Today is the 12th anniversary of the BP Deepwater Horizon explosion in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts.

We can't afford to let fossil fuel companies spill even more toxic oil in our oceans and onto our beaches. It's time to transition to a clean energy economy.

President Biden, [U.S. Department of the Interior](#) and [Bureau of ...](#) See more



# Top Instagram Posts



dws

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16 likes

dws BP's #DeepwaterHorizon disaster unleashed catastrophic impacts 12 years ago today. Our #FLA beaches were hit. Today millions struggle with gas prices, yet Big Oil rakes in billions of profits. We must #ProtectOurCoast, adopt clean energy alternatives & end our fossil fuel dependence.



reptroycarter

Follow



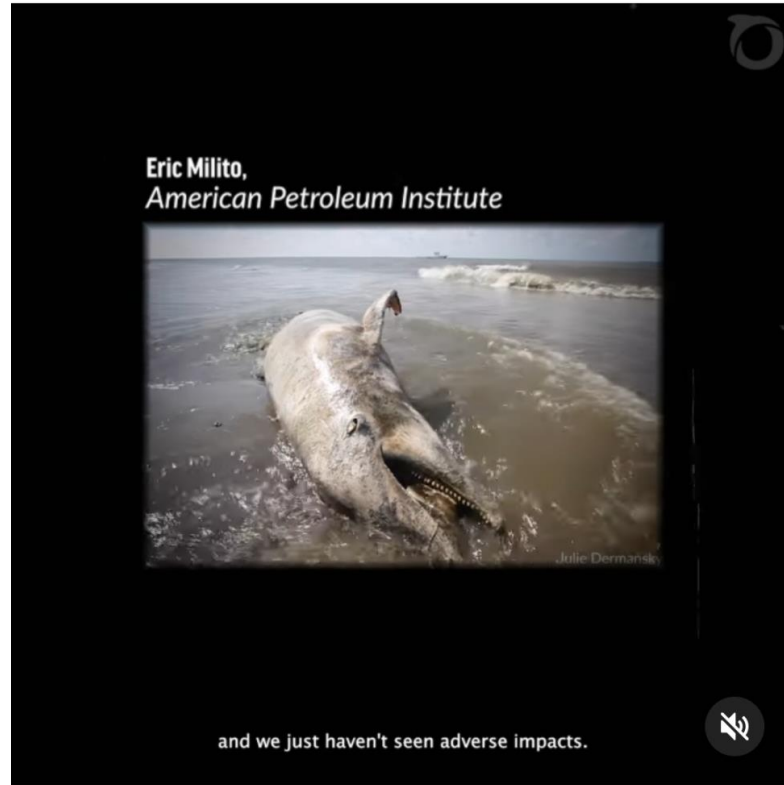
7 likes

reptroycarter 12 years ago today, BP's #DeepwaterHorizon exploded, gushing over 200 million gallons of toxic oil into our Gulf.

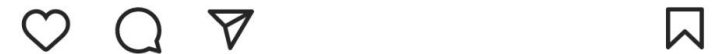
Today, we remember the lives lost on this tragic day and recommit to a safer, #CleanEnergy future. #TimetoTransition #ProtectOurCoast



# Top Instagram Posts

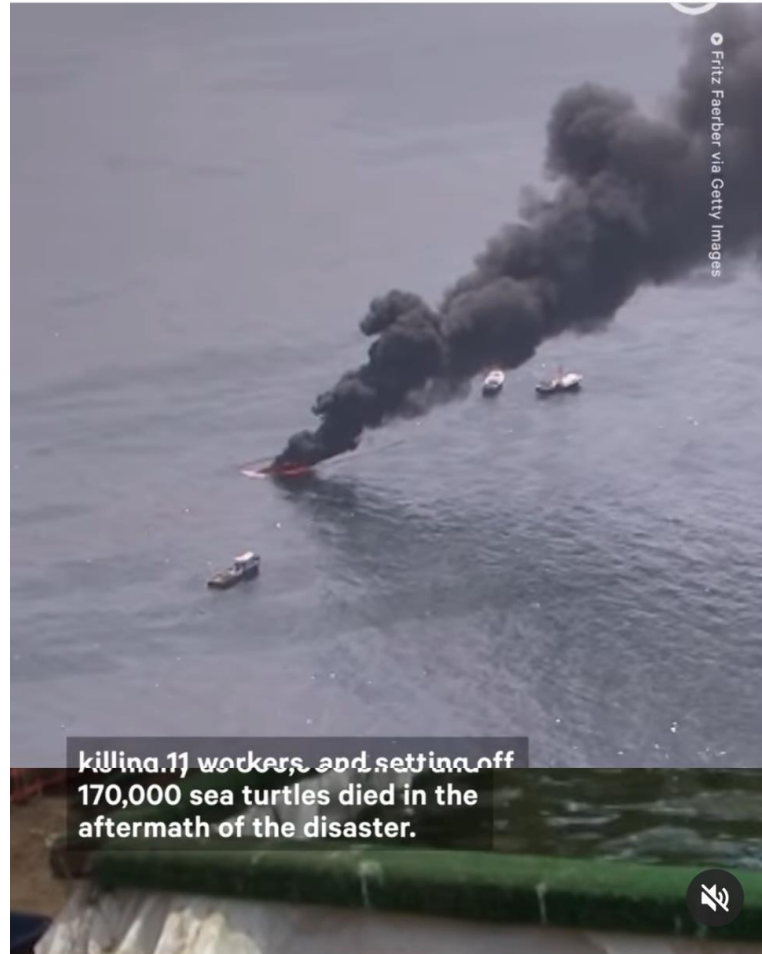


17,296 views • Liked by **megan\_huss** and **natiturkel**  
**oceana** When the BP [#DeepwaterHorizon](#) exploded in the Gulf of Mexico, the blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, the oil and gas industry has failed to clean up their act while offshore drilling has continued to threaten our coasts. Now, Big Oil is putting profits ahead of working people while sitting on 8 million unused acres and they're telling us they need more. It's time to [#ProtectOurCoast](#) and end new drilling.



6 likes  
**repchuygarcia** 12 years ago today, the BP [#DeepwaterHorizon](#) exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's [#TimeToTranstion](#) to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. [@POTUS](#), [@USInterior](#), and [@BureauOfOceanEnergyManagement](#) must finally [#ProtectOurCoast](#) and end new offshore drilling.

# Top Instagram Posts

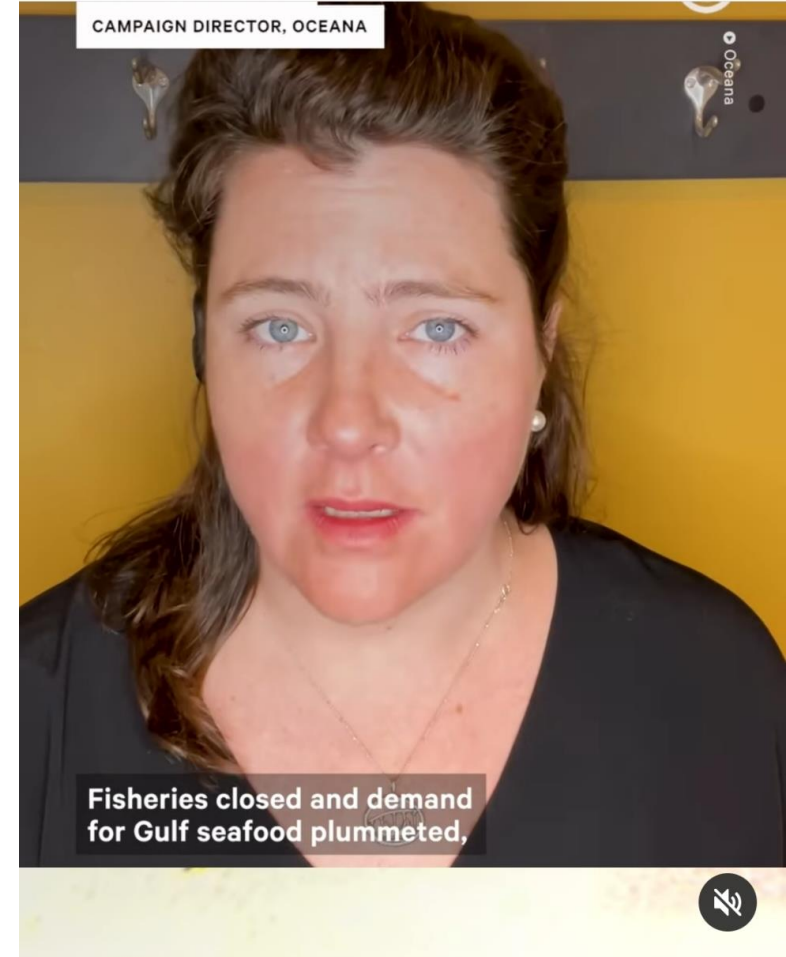


2,761 views

nowthisearth The BP Deepwater Horizon oil rig exploded 12 years ago today – here’s how the largest oil spill in American history continues to impact us #ProtectOurCoast

#news #oilspill #environment #pollution #oceans

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2,777 views

nowthispolitics The BP Deepwater Horizon oil rig exploded 12 years ago today – here’s how the largest oil spill in American history continues to impact us #ProtectOurCoast

#news #oilspill #environment #pollution #oceans



# Top Instagram Posts



sierraclub

Follow



12 years later, our oceans and coast are still at risk. **President Biden must end new offshore drilling.**

#WeChooseNow #ProtectOurCoast #TimeToTransition



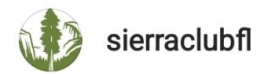
60 likes

sierraclub 12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTransition to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally #ProtectOurCoast and end new offshore drilling.



11 likes  
grantbixby END OFFSHORE OIL  
12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTransition to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. For those of us in OC, October 4, 2021 was our turn for an offshore oil disaster. If you own or know someone who owns a coastal business, @bappc is a leading business voice for protecting our coastal economy--JOIN US, it's FREE! @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally #ProtectOurCoast and end new offshore drilling.

Did you know?  
\* Offshore oil makes up less than 1/10 of 1% of our oil bucket  
\* Many CA rigs are operated at a loss because it's too costly for the oil companies to decommission the poorly producing wells  
\* Our aging rigs are corroding and prone to failure given the harsh marine environment  
\* With the "easy oil" gone, many rigs have been pawned off to smaller operators who don't have the financial resources to properly maintain them  
\* When oil rig operators go bankrupt (they have, and regularly do) the CA taxpayers get stuck with the decommissioning costs  
Time to rethink offshore oil?



sierraclubfl

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12 years later and our oceans, coast, and climate are still at risk.



**President Biden must end new offshore drilling.**

#WeChooseNow #ProtectOurCoast #TimeToTransition




2 likes

sierraclubfl Today marks the 12th anniversary of Deepwater Horizon. On April 20, 2010, BP's #DeepwaterHorizon oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans. Now is the #TimeToTransition and @potus @usinterior and the Bureau of Ocean Energy Management must end new offshore drilling and #ProtectOurCoast #notofossilfuels #yestocleanenergy



# Top Instagram Posts

 protecttheatlantic

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© U.S. Coast Guard



6 likes

protecttheatlantic BP's #DeepwaterHorizon catastrophe devastated Gulf of Mexico communities & small businesses paid the price. Offshore drilling threatens crucial drivers of our economy like tourism, recreation, and fishing, which rely on clean coasts and a healthy ocean. 12 years later, @potus , @usinterior , and Bureau of Ocean Energy Management #boem must finally #ProtectOurCoast and end new offshore drilling.

 onlyone  
The Gulf of Mexico

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862 likes

onlyone On April 20, 2010, a surge of natural gas ripped through the Deepwater Horizon oil rig off of the Gulf of Mexico. The subsequent explosion and fire killed 11 workers and set off the largest oil spill in U.S. History. Twelve years later, offshore oil drilling continues to threaten U.S. coasts and the global climate.

In remembrance of the Deepwater Horizon oil spill, we must be clear in our vision for the future: The world cannot afford to let fossil fuel companies continue to spill toxic oil into the ocean and risk collapsing entire marine ecosystems. It's #TimeToTranstion to a clean energy economy.

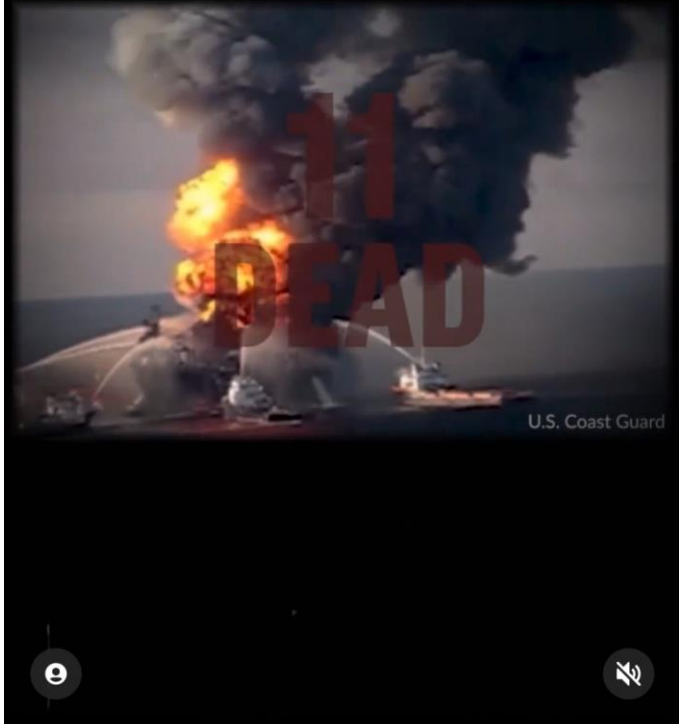
@POTUS @USInterior and @BureauOfOceanEnergyManagement, we're asking you to #ProtectOurCoast and end new offshore drilling so that together, we can reach for a cleaner, healthier, and more abundant future.

Photo by @usnavy

 mrreidscott

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Tony Hayward  
CEO, British Petroleum



193 views

mrreidscott 12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTranstion to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally #ProtectOurCoast and end new offshore drilling.



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surf\_industry 12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico devastating the Gulf economy, and just last October Southern California suffered a similar disaster. Coastal communities rely on clean beaches and a healthy ocean, but offshore drilling still threatens our tourism, fishing, and recreations industries.



#protectourcoast



suncoastsurfrider  
Deepwater Horizon

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suncoastsurfrider 12 years ago today, the BP #DeepwaterHorizon oil rig exploded in the Gulf of Mexico. The blast killed 11 people and triggered what would become the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now more than ever, it's imperative we transition into a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches.

Congressional leaders have introduced legislation to permanently ban new offshore oil and gas drilling in U.S. waters including the Atlantic, Pacific, Eastern Gulf of Mexico, and Arctic Ocean. Passing these bills is critical to protecting our marine ecosystems, as well as coastal recreation and tourism opportunities across the United States.

Visit the link in bio to take action and urge Congress to #ProtectOurCoast and end new offshore drilling.



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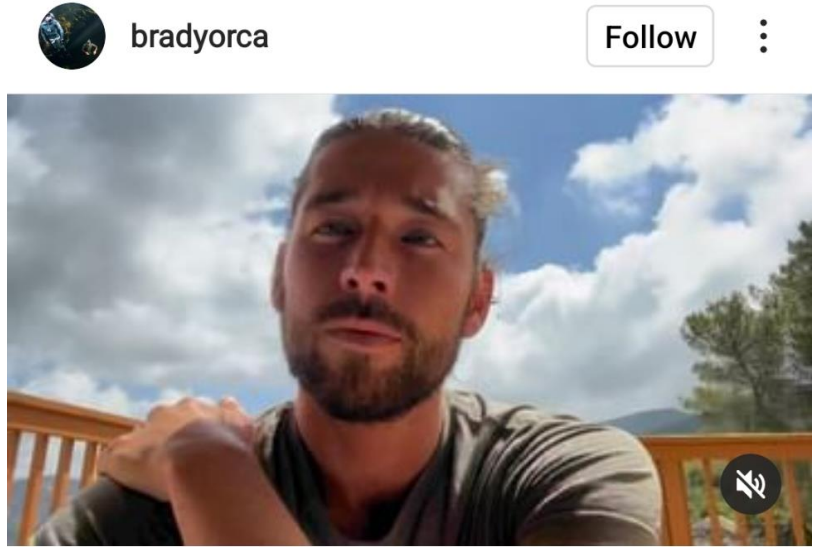
surfrider 12 years ago today, the BP #DeepwaterHorizon oil rig exploded in the Gulf of Mexico. The blast killed 11 people and triggered what would become the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now more than ever, it's imperative we transition into a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches.

Congressional leaders have introduced legislation to permanently ban new offshore oil and gas drilling in U.S. waters including the Atlantic, Pacific, Eastern Gulf of Mexico, and Arctic Ocean. Passing these bills is critical to protecting our marine ecosystems, as well as coastal recreation and tourism opportunities across the United States.

Visit the link in bio to take action and urge Congress to #ProtectOurCoast and end new offshore drilling.



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bradyorca Let's tag President Biden all day: 12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and fossil fuel companies continue to spill toxic oil in our oceans and communities. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally #ProtectOurCoast and end new offshore drilling. #TimeToTransition #NoNewOilLeases #WeChooseNow

msrisingcoalition

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msrisingcoalition Join the MS hub of @gulfsouth4gnd TODAY at 12 pm for a Radical Day of Reflection as we remember the BP Drilling Disaster that claimed the lives of 11 workers, spilled more than 200 million gallons of oil into the Gulf, and devastated Gulf communities and wildlife.

→ When: Wednesday, April 20 at 12pm CDT / 1pm EDT / 10am PDT

→ Where: Register here: <http://bit.ly/BP-12-Years>

→ What & Who: The 30 minute event hosted by Mississippi for a Green New Deal will include the following:

- \*A prayer and reflection by Pastor Harry Joseph on the 11 lives lost
- \*A legal update on offshore oil lease sales in the Gulf in light of a January legal victory by lead attorney Brettney Hardy of Earthjustice
- \*A spoken word poem by Artis Burney of the Cosmic Poetry Sanctuary MS.
- \*An update on the Eastern Gulf Moratorium and efforts to make it permanent by Hunter Miller from Oceana
- \*An update on plans for an offshore wind farm in the Gulf provided by Dustin Renaud of Healthy Gulf.

We hope you can join us for reflection and learning 12 years after the worst environmental disaster in U.S. history!

#TimeToTransition #WeChooseNow #ProtectOurCoast

centerforbiodiv

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317 views

centerforbiodiv Today is the 12th anniversary of the BP Deepwater Horizon explosion in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history.

But in the years since that tragedy, Big Oil has kept drilling and spilling, harming the health of people, marine environments and wildlife. We can't afford to let fossil fuel companies spill even more toxic oil in our oceans and onto our beaches.

You can help by joining a coordinated social action right now. Share this post as a story, tagging @POTUS, @Interior and @BOEM, to let the administration know you're counting on them to end new offshore drilling.

You can also take action via the link in our bio.

#WeChooseNow #ProtectOurCoast #TimeToTransition

[Video: A 44-second video overlaid with "Shattered Glass," a track by Christian Andersen. The first 21 seconds show four different clips taken by BP of plumes of dark brown and black oil gushing from a pipe into the ocean. The next 18 seconds show air footage, taken by NOAA Fisheries, of the water's surface streaked with orange and brown oil. The final five second slide includes the Center for Biological Diversity logo and credits for the footage and the music.]





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## BP 12 Memorial

A DAY OF RADICAL REFLECTION

Wednesday, April 20th, 2022

12 PM Register @: [bit.ly/BP-12-Years](https://bit.ly/BP-12-Years)



2 likes

chispatx Tomorrow will be the 12 years since the BP drilling disaster killed 11 men & gushed >200M gallons of toxic oil into the Gulf. Offshore drilling still threatens our communities. That's enough delaying the change to safe and renewable energy. #ProtectOurCoast & say #NoNewOilLeases.



rethinkenergyfl

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1 like

rethinkenergyfl 12 years ago BP's #DeepwaterHorizon exploded, gushing more than 200 million gallons of toxic oil into the Gulf. But offshore drilling still threatens our coasts & now it's #TimeToTransition to clean energy. We must #ProtectOurCoast & end new drilling.



cclflorida

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cclflorida Today marks the 12th anniversary of Deepwater Horizon. On April 20, 2010, BP's #DeepwaterHorizon oil rig exploded in the Gulf of Mexico and would go on to gush for 87 days and spew more than 200 million gallons of toxic oil into the Gulf of Mexico. 12 years later, offshore drilling still threatens our coasts and oceans. Now is the #TimeToTransition and @potus @usinterior and the Bureau of Ocean Energy Management must end new offshore drilling and #ProtectOurCoast #notofossilfuels #yestocleanenergy



# Top Instagram Posts



womenworkingforoceans

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womenworkingforoceans 12 years ago, on April 20, 2010, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history.

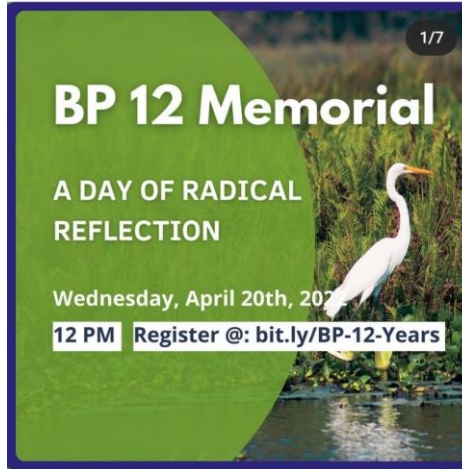
In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTranstion to a clean energy economy.

We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and @BureauOfOceanEnergyManagement must finally #ProtectOurCoast and end new offshore drilling.



all\_4\_energy  
Gulf Of Mexico

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2 likes

all\_4\_energy On April 20, 2010, the BP Drilling Disaster occurred on the Deepwater Horizon oil rig in the Gulf of Mexico and killed 11 workers and set off the largest oil spill in U.S. history. 12 years later, offshore oil drilling continues to threaten our Gulf Coast communities, workers, wildlife, and tourism & fishing economies.

The current five-year plan for offshore oil and gas leasing will expire on July 1, 2022. Prior to that date, President Biden is expected to issue a "proposed program" for offshore oil and gas leasing which will kick-off a 90-day public comment period.

During his campaign, Biden promised to end new leasing for offshore drilling. Now, rising gas prices and pressure from the oil and gas industry could threaten the president's resolve – we cannot let that happen.

Register at: [bit.ly/BP-12-Years](https://bit.ly/BP-12-Years)

LINK IN BIO

The BP Drilling disaster had catastrophic impacts on the Gulf environment, wildlife, communities, and economies. @POTUS MUST hear from us on the importance of preventing future disasters before he puts out his offshore drilling plan.

#LA4GND #GS4GND #TimeToTransition #WeChooseNow #ProtectOurCoast #PeopleNotProfit #TheGulfIsNotForSale #NoNewOilLeases



democracyforallfi

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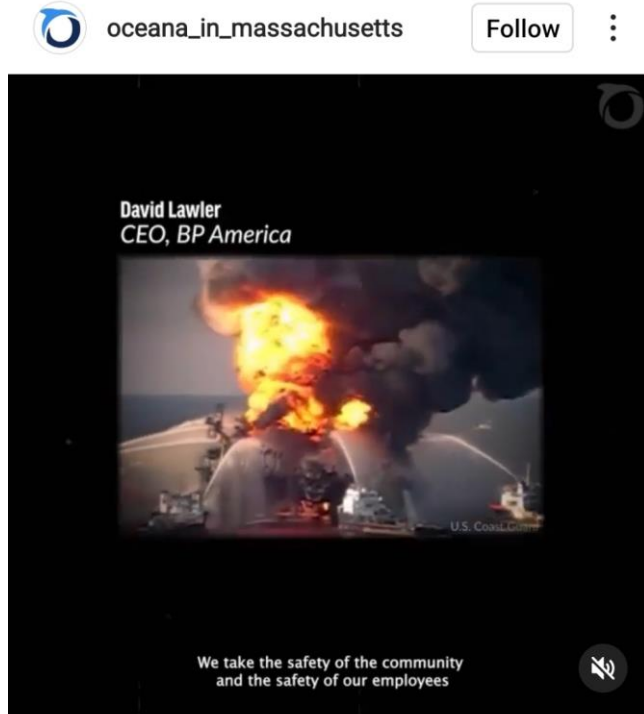


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democracyforallfi 12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTranstion to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @POTUS @USInterior and Bureau Of Ocean Energy management must finally #ProtectOurCoast and end new offshore drilling.



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6 views

oceana\_in\_machusetts When the BP #DeepwaterHorizon exploded in the Gulf of Mexico, the blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, the oil and gas industry has failed to clean up their act while offshore drilling has continued to threaten our coasts. Now, Big Oil is putting profits ahead of working people while sitting on 8 million unused acres and they're telling us they need more. It's time to #ProtectOurCoast and end new drilling. @potus @usinterior #boem



inletkeeper

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inletkeeper 12 years ago today, the BP #DeepwaterHorizon exploded in the Gulf of Mexico. The blast killed 11 people and set off the worst oil spill in U.S. history. In the years since that tragedy, offshore drilling has continued to threaten our coasts, and now it's #TimeToTranstion to a clean energy economy. We cannot afford to let fossil fuel companies continue to spill toxic oil in our oceans and onto our beaches. @potus @usinterior and Bureau Of Ocean Energy Management must finally #ProtectOurCoast and end new offshore drilling.





**OCEANA** Protecting the  
World's Oceans

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] Oceana note of appreciation

**Date:** Tue, 17 May 2022 21:25:36 +0000

**Inline-Images:** image001.png

---

Thanks Diane!

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Tuesday, May 17, 2022 5:15 PM

**To:** Beaudreau, Tommy P <tommy\_beaudreau@ios.doi.gov>; Feldgus, Steven H <steve\_feldgus@ios.doi.gov>; Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Oceana note of appreciation

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Dear Tommy, Steve, Amanda, and Marissa –

I am writing to share a note of appreciation following last week's news and a few other updates that might be of interest.

1. Last week, Oceana put out the following statement, thanking President Biden: <https://usa.oceana.org/press-releases/biden-administration-cancels-three-oil-and-gas-lease-sales/>

*"Fossil fuel companies are lying when they say they need more leases for oil and gas. They already have 8 million acres that are going unused offshore. No number of new leases would fix gas prices. Oil companies haven't developed the leases they already have, and they certainly don't need any more. If increased production was really the answer, they could use the leases they already own. Instead, they are taking advantage of the current situation and raking in record profits. We can't afford any more dirty and dangerous offshore drilling.*

*"Oceana applauds President Biden for upholding his campaign commitment to halt new leasing for offshore oil and gas drilling and for his leadership in increasing our domestic clean energy supply through offshore wind. President Biden must continue to lead by proposing a new Five-Year Plan with no new lease sales. Through responsibly sited and developed offshore wind, our oceans can play a major role in meeting our nation's energy needs, protecting our economy, and ensuring Americans aren't victims of future price hikes spurred by autocrats like Putin or the whims of the global oil market."*

2. An update that to memorialize 12 years since the BP *Deepwater Horizon* disaster, on April 20<sup>th</sup> Oceana and Healthy Gulf organized a social media day of action.
  - In total, we generated 59 million potential impressions, 1,300 social media posts, 14,000 likes, and 1,400 shares, including posts from key Members of Congress and partner organizations.
  - Selected posts collected in the attached document. Highlights from Members of Congress included:
    - Rep. John Sarbanes <https://twitter.com/RepSarbanes/status/1516873316522512388>
    - Rep. Katie Porter <https://twitter.com/katieporteroc/status/1516861098326061057>

- Rep. Val Demings <https://twitter.com/RepValDemings/status/1516860513765969921>
- Rep. Jan Schakowsky <https://twitter.com/janschakowsky/status/1516843081160667139>
- Rep. Grace Napolitano <https://twitter.com/gracenapolitano/status/1516841334132383748>
- Rep. Lois Frankel <https://twitter.com/RepLoisFrankel/status/1516840054181830660>
- House Natural Resource Dems <https://twitter.com/NRDems/status/1516834031677198339>
- Rep. Chuy García <https://twitter.com/RepChuyGarcia/status/1516814943605116941>
- Rep. Charlie Crist <https://twitter.com/RepCharlieCrist/status/1516799478115840006>
- Rep. Ted Lieu <https://twitter.com/RepTedLieu/status/1516793812479201284>
- Rep. Troy Carter <https://twitter.com/RepTroyCarter/status/1516791983322320900>
- Rep. Kathy Castor <https://twitter.com/usrepkcastor/status/1516880926252449793>
- Rep. Jim McGovern <https://twitter.com/RepMcGovern/status/1516848316272762883>
- Rep. Frank Pallone <https://twitter.com/frankpallone/status/1516787682747236356>
- Rep. Debbie Wasserman Schultz <https://twitter.com/repdwstweets/status/1516795486564347905>

3. Finally, a few recent earned media pieces may be of interest:

- 4/20/2022, Tampa Bay Times, By Rep. Charlie Crist, [The Deepwater Horizon disaster taught us we need to protect Florida from offshore drilling](#)
  - Highlighted excerpt: *“As Russia’s attack on Ukraine continues to disrupt global oil and gas prices, the fossil fuel industry falsely claims they need more of our precious Gulf of Mexico for dirty and dangerous offshore drilling. But the industry already has over eight million acres of unused leases. In fact, about 75 percent of their total leased acreage in the ocean is currently sitting unused. More leases are not the answer. President Joe Biden promised to protect our coast by preventing new offshore drilling. I support that pledge and I look forward to working with the president to fully — and permanently — protect Florida from the dangers of offshore drilling.”*
- 4/20/2022, NowThis News, [The BP Deepwater Horizon oil rig exploded 12 years ago today](#)
- 4/23/2022, Savannah Morning News, [The Deepwater Horizon oil spill happened 12 years ago. Why are we still offshore drilling?](#)

Thank you,  
Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave NW, Suite 200

Washington, DC, 20036

D 202 467 1948 | C 301 672 0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

**From:** Kendall Dix <kdix@taproot.earth>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Offshore CCS  
**Date:** Thu, 20 Jul 2023 11:30:50 -0400

---

OK, great. Thanks, Marissa!

On Thu, Jul 20, 2023 at 11:28 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hello Kendall, great to hear from you.

BOEM and BSEE are still in the process of drafting a proposed carbon sequestration rule for the Outer Continental Shelf, which will address how a lease for carbon sequestration may be obtained. Timing for the proposed rule is not yet set, but we are aiming for the end of this year to early next year. There will be a public comment period on the proposed rule, and I am already in discussions with the rulemaking team about potentially scheduling public meetings and other targeted outreach so that we can solicit valuable feedback.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Thursday, July 20, 2023 11:03 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Offshore CCS

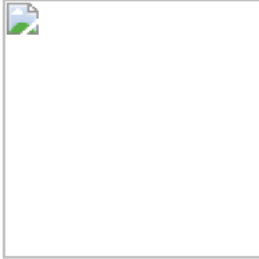
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Hi, Marissa I came across this article that I don't have access to, but it says DOI is considering allowing for the conversion of offshore oil and gas leases to offshore CCS sites.

[https://www.energyintel.com/00000189-3209-d3a6-a7eb-3eb925b50000?\\_amp=true](https://www.energyintel.com/00000189-3209-d3a6-a7eb-3eb925b50000?_amp=true)

Is there any truth to this? Also, I remember us talking a while back about the development of offshore CCS regulations Are you all still looking for input and research? If so, is there a timeframe that we should be thinking about?

Thanks,  
Kendall



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/they

---



■ [\(434\) 442 0179](tel:(434)4420179)  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](http://taproot.earth)



**From:** Kendall Dix <kdix@taproot.earth>

**To:** "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>

**Subject:** Out of office Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

**Date:** Thu, 1 Jun 2023 07:36:52 -0700

---

Thank you for your message. I am traveling for work until June 2. I'll get back to you as soon as you can.

-Kendall

--

[image: facebook] <<https://www.facebook.com/TaprootEarth>>

[image: twitter] <<https://twitter.com/taprootearth>>

[image: instagram] <<https://www.instagram.com/taprootearth/>>

Kendall Dix

National Policy Director

Taproot Earth

he/they

(434) 442-0179

[kdix@taproot.earth](mailto:kdix@taproot.earth)

[taproot.earth](http://taproot.earth)

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>  
**Subject:** Re: [EXTERNAL] Q re Oral Testimony opportunity & economic analysis  
**Date:** Wed, 17 Aug 2022 18:00:21 +0000

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Thank you!!

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Tuesday, August 16, 2022 1:52:51 PM  
**To:** Hoskins, Diane <Dhoskins@oceana.org>; Lefton, Amanda B <Amanda.Lefton@boem.gov>  
**Subject:** Re: [EXTERNAL] Q re Oral Testimony opportunity & economic analysis

Hello Diane,

Tammy said she replied to your questions about the National Program meetings, I am pasting her responses below.

The economic analysis methodology paper you're looking for is on our website in the energy economics section: <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Five-Year-Program/2017-2022/Economic-Analysis-Methodology.pdf>

- I see that registration is strongly recommended. At some point will registration be required and if so, will there be a deadline? If someone registers, will BOEM recommend a time frame for them to login into the hearing to minimize wait-time or will participants log in at the beginning and wait until they're called on?

**Registration is not required, however, registration helps BOEM get a sense for how many people will attend to comment. Participants will log in at the beginning and wait until they are called on by the moderator.**

- Will there be presentations by BOEM speakers?

**There will not be any presentations by BOEM speakers, the September 12 meeting is a virtual opportunity for people to submit oral testimony/comments on the Proposed Program and Draft PEIS with a court reporter for public record. The public will have the chance to talk with BOEM staff and ask questions during the four virtual public meetings on Tuesday, Aug 23, Thursday, Aug 25, Monday, Aug 29 and Wednesday, Aug 31.**

- Will there be breakout rooms or will everyone be in one room? If breakout rooms, how many?

**There will not be any breakout rooms during the Sep 12 virtual oral testimony meeting.**

- How will speakers be facilitated/ called on?/ How will the order for those hoping to offer comments be decided?

**Participants will be asked to "raise their hand" in Zoom to get in the queue to provide comment, and the Moderator will manage the queue/call on folks in order.**

- Will members of the public be on camera? Will members of the public be able to see other participants?

**No, members of the public will not be on camera or be able to see other participants during the virtual oral testimony meeting on September 12.**

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Tuesday, August 16, 2022 9 55 AM  
**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Q re Oral Testimony opportunity & economic analysis

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Hi Amanda and Marissa  
Hope you're both doing well.

I have a few questions that I am hoping you might be able to help me out with or point me to who could

1. We're pleased to see the addition of the public testimony opportunity. See some follow-up questions below. Could you help me track these details down?
2. Seeking a copy of BOEM's Economic Analysis Methodology for its 2012-2017 leasing program. Could you let me know who I could reach out to for this?
3. Roughly, can you share approximately many FTE economists does BOEM have reviewing/ responding to comments?

Thank you so much in advance  
Diane

---

**From:** Hoskins, Diane  
**Sent:** Monday, August 15, 2022 12:10 PM  
**To:** tammy.muckenfuss@boem.gov  
**Subject:** RE: BOEM Announces Opportunity for Providing Oral Testimony on the 2023-2028 Proposed Program and Draft Environmental Impact Statement

Hi Tammy, reupping this email from last week. Could you advise?  
Thanks in advance, Diane

---

**From:** Hoskins, Diane  
**Sent:** Tuesday, August 9, 2022 2 42 PM  
**To:** [tammy.muckenfuss@boem.gov](mailto:tammy.muckenfuss@boem.gov)  
**Subject:** RE BOEM Announces Opportunity for Providing Oral Testimony on the 2023 2028 Proposed Program and Draft Environmental Impact Statement

Hi Tammy,

We were pleased to see the addition of an oral testimony opportunity writing to request additional detail

- I see that registration is strongly recommended. At some point will registration be required and if so, will there be a deadline? If someone registers, will BOEM recommend a time frame for them to login into the hearing to

minimize wait-time or will participants log in at the beginning and wait until they're called on?

- Will there be presentations by BOEM speakers?
- Will there be breakout rooms or will everyone be in one room?
- If breakout rooms, how many?
- How will speakers be facilitated/ called on?/ How will the order for those hoping to offer comments be decided?
- Will members of the public be on camera?
- Will members of the public be able to see other participants?

Thank you,  
Diane

**From:** Bureau of Ocean Energy Management <[tammy.muckenfuss@boem.gov](mailto:tammy.muckenfuss@boem.gov)>

**Sent:** Monday, August 8, 2022 2:10 PM

**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Subject:** BOEM Announces Opportunity for Providing Oral Testimony on the 2023-2028 Proposed Program and Draft Environmental Impact Statement



**August 8, 2022**

**BOEM Contact:**  
[Tammy Muckenfuss](mailto:Tammy.Muckenfuss)  
202-716-7652

## **BOEM Announces Opportunity for Providing Oral Testimony on the 2023 2028 Proposed Program and Draft Environmental Impact Statement**

Dear Stakeholder,

On July 1, 2022, the Department of the Interior (DOI) [announced](#) the availability of the Proposed Program for the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program, as well as the Draft Programmatic Environmental Impact Statement (Draft PEIS) for the 2023-2028 Program.

Input from the public and from ocean users is critical to the process of developing our National OCS Oil and Gas leasing program.

In addition to the four live virtual open house meetings being held, BOEM has also scheduled a virtual opportunity for people to submit oral testimony. Oral comments will be captured by a court reporter for the public record. Each participant will have up to three minutes to provide their oral comments. [Read more...](#)



Bureau of Ocean Energy Management | 1849 C Street, NW, Washington, DC 20240 [www.boem.gov](http://www.boem.gov)

[Unsubscribe dhoskins@oceana.org](mailto:dhoskins@oceana.org)

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** "Hoskins, Diane" <Dhoskins@oceana.org>  
**Subject:** Re: [EXTERNAL] Q re Oral Testimony opportunity & economic analysis  
**Date:** Wed, 17 Aug 2022 20:27:09 +0000  
**Attachments:** 2012-2017\_PFP\_EconMethodologyFinal.pdf

---

Ah, apologies for misreading the request. Attached is the report for 2012-2017.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Wednesday, August 17, 2022 3:51 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Q re Oral Testimony opportunity & economic analysis

Hi Marissa, following up about the document, we're actually looking for the equivalent document for the 2012-2017 program.

Would you know who would have a copy of that?

Thank you, Diane

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Tuesday, August 16, 2022 1:52:51 PM  
**To:** Hoskins, Diane <Dhoskins@oceana.org>; Lefton, Amanda B <Amanda.Lefton@boem.gov>  
**Subject:** Re: [EXTERNAL] Q re Oral Testimony opportunity & economic analysis

Hello Diane,

Tammy said she replied to your questions about the National Program meetings, I am pasting her responses below.

The economic analysis methodology paper you're looking for is on our website in the energy economics section: <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Five-Year-Program/2017-2022/Economic-Analysis-Methodology.pdf>

- I see that registration is strongly recommended. At some point will registration be required and if so, will there be a deadline? If someone registers, will BOEM recommend a time frame for them to login into the hearing to minimize wait-time or will participants log in at the beginning and wait until they're called on?

**Registration is not required, however, registration helps BOEM get a sense for how many people will attend to comment. Participants will log in at the beginning and wait until they are called on by the moderator.**

- Will there be presentations by BOEM speakers?

There will not be any presentations by BOEM speakers, the September 12 meeting is a virtual opportunity for people to submit oral testimony/comments on the Proposed Program and Draft PEIS with a court reporter for public record. The public will have the chance to talk with BOEM staff and ask questions during the four virtual public meetings on Tuesday, Aug 23, Thursday, Aug 25, Monday, Aug 29 and Wednesday, Aug 31.

- Will there be breakout rooms or will everyone be in one room? If breakout rooms, how many?

There will not be any breakout rooms during the Sep 12 virtual oral testimony meeting.

- How will speakers be facilitated/ called on?/ How will the order for those hoping to offer comments be decided?

Participants will be asked to “raise their hand” in Zoom to get in the queue to provide comment, and the Moderator will manage the queue/call on folks in order.

- Will members of the public be on camera? Will members of the public be able to see other participants?

No, members of the public will not be on camera or be able to see other participants during the virtual oral testimony meeting on September 12.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Tuesday, August 16, 2022 9 55 AM  
**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Q re Oral Testimony opportunity & economic analysis

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Hi Amanda and Marissa

Hope you're both doing well.

I have a few questions that I am hoping you might be able to help me out with or point me to who could

1. We're pleased to see the addition of the public testimony opportunity. See some follow-up questions below. Could you help me track these details down?
2. Seeking a copy of BOEM's Economic Analysis Methodology for its 2012-2017 leasing program. Could you let me know who I could reach out to for this?
3. Roughly, can you share approximately many FTE economists does BOEM have reviewing/ responding to comments?

Thank you so much in advance

Diane

**From:** Hoskins, Diane  
**Sent:** Monday, August 15, 2022 12:10 PM  
**To:** tammy.muckenfuss@boem.gov  
**Subject:** RE: BOEM Announces Opportunity for Providing Oral Testimony on the 2023-2028 Proposed Program and Draft Environmental Impact Statement

Hi Tammy, reupping this email from last week. Could you advise?  
Thanks in advance, Diane

**From:** Hoskins, Diane  
**Sent:** Tuesday, August 9, 2022 2:42 PM  
**To:** [tammy.muckenfuss@boem.gov](mailto:tammy.muckenfuss@boem.gov)  
**Subject:** RE: BOEM Announces Opportunity for Providing Oral Testimony on the 2023-2028 Proposed Program and Draft Environmental Impact Statement

Hi Tammy,

We were pleased to see the addition of an oral testimony opportunity. I am writing to request additional detail

- I see that registration is strongly recommended. At some point will registration be required and if so, will there be a deadline? If someone registers, will BOEM recommend a time frame for them to login into the hearing to minimize wait-time or will participants log in at the beginning and wait until they're called on?
- Will there be presentations by BOEM speakers?
- Will there be breakout rooms or will everyone be in one room?
- If breakout rooms, how many?
- How will speakers be facilitated/ called on?/ How will the order for those hoping to offer comments be decided?
- Will members of the public be on camera?
- Will members of the public be able to see other participants?

Thank you,  
Diane

**From:** Bureau of Ocean Energy Management <[tammy.muckenfuss@boem.gov](mailto:tammy.muckenfuss@boem.gov)>  
**Sent:** Monday, August 8, 2022 2:10 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** BOEM Announces Opportunity for Providing Oral Testimony on the 2023-2028 Proposed Program and Draft Environmental Impact Statement



August 8, 2022

BOEM Contact:  
[Tammy Muckenfuss](mailto:Tammy.Muckenfuss)  
202-716-7652

**BOEM Announces Opportunity for Providing Oral Testimony on the**



## 2023-2028 Proposed Program and Draft Environmental Impact Statement

Dear Stakeholder,

On July 1, 2022, the Department of the Interior (DOI) [announced](#) the availability of the Proposed Program for the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program, as well as the Draft Programmatic Environmental Impact Statement (Draft PEIS) for the 2023-2028 Program.

Input from the public and from ocean users is critical to the process of developing our National OCS Oil and Gas leasing program.

In addition to the four live virtual open house meetings being held, BOEM has also scheduled a virtual opportunity for people to submit oral testimony. Oral comments will be captured by a court reporter for the public record. Each participant will have up to three minutes to provide their oral comments. [Read more...](#)

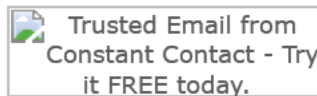


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# **Economic Analysis Methodology for the Five Year OCS Oil and Gas Leasing Program for 2012-2017**

June 2012

**Prepared by**

**Economics Division of the Bureau of Ocean Energy Management**

**June 2012**



United States Department of the Interior  
BUREAU OF OCEAN ENERGY MANAGEMENT  
Washington, DC

## **REPORT AVAILABILITY**

Extra copies of the report may be obtained from the BOEM website ([www.boem.gov](http://www.boem.gov)) or:

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Bureau of Ocean Energy Management  
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Herndon, VA 20170-4817

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## **CITATION**

Suggested citation:

U.S. Department of the Interior. Bureau of Ocean Energy Management. 2012. Economic Analysis Methodology for the Five Year OCS Oil and Gas Leasing Program for 2012-2017. BOEM OCS Study 2012-022.

# Table of Contents

|                                                                            |           |
|----------------------------------------------------------------------------|-----------|
| <b>Introduction .....</b>                                                  | <b>1</b>  |
| <b>Net Benefits Analysis.....</b>                                          | <b>2</b>  |
| Methodology .....                                                          | 3         |
| <i>Net Economic Value Derived from a Program Area .....</i>                | <i>4</i>  |
| <i>Net Social Value Associated with a Program Area .....</i>               | <i>8</i>  |
| Market Simulation Model.....                                               | 8         |
| Offshore Environmental Cost Model.....                                     | 11        |
| OECM Oil Spill Modeling.....                                               | 14        |
| OECM Air Emissions Modeling.....                                           | 16        |
| OECM Ecological Modeling .....                                             | 17        |
| Net Environmental and Social Costs for a Program Area.....                 | 19        |
| Net Social Value Results from the OECM and MarketSim.....                  | 19        |
| <i>Net Benefits Derived from a Program Area .....</i>                      | <i>21</i> |
| Estimation of Consumer Surplus in MarketSim .....                          | 22        |
| Netting out Domestic Producer Surplus.....                                 | 22        |
| Net Benefits Summary for All Program Areas .....                           | 26        |
| Revisions for the Proposed Final Program Analysis .....                    | 28        |
| Unmonetized Impacts .....                                                  | 29        |
| Unmonetized Costs.....                                                     | 30        |
| Unmonetized Benefits .....                                                 | 31        |
| Assumptions and Input Data.....                                            | 33        |
| Oil and Natural Gas Price-Level Assumptions .....                          | 33        |
| Cost Assumptions .....                                                     | 34        |
| Discount Rate .....                                                        | 34        |
| Anticipated Production .....                                               | 34        |
| Production Profiles .....                                                  | 36        |
| Exploration and Development Scenarios .....                                | 36        |
| <b>Catastrophic Oil Spill Analysis .....</b>                               | <b>37</b> |
| Approach for Quantifying the Possible Effects of a Catastrophic Spill..... | 38        |
| <i>OCS Catastrophic Oil Spill Sizes .....</i>                              | <i>39</i> |
| <i>Statistical Frequency of a Catastrophic Oil Spill.....</i>              | <i>41</i> |
| <i>Estimated Program Area Results .....</i>                                | <i>42</i> |
| Conditional Costs .....                                                    | 42        |
| Risky Costs .....                                                          | 44        |
| Break-Even Analysis .....                                                  | 45        |
| Recent Risk Reduction Efforts .....                                        | 47        |
| Catastrophic Risks of the No Sale Options.....                             | 50        |
| Detailed Cost Calculations .....                                           | 51        |
| Methodology.....                                                           | 52        |
| Potential Effects.....                                                     | 53        |
| Physical and Biological Resources .....                                    | 53        |
| Public Use of Resources .....                                              | 54        |
| Economic Activity .....                                                    | 54        |
| Cleanup and Containment Costs.....                                         | 54        |

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| <i>The Gulf of Mexico Program Areas</i> .....                            | 55        |
| Physical and Biological Resources .....                                  | 56        |
| Subsistence Use .....                                                    | 58        |
| Coastal Recreation .....                                                 | 58        |
| Commercial Fishing.....                                                  | 60        |
| Life and Nonfatal Injuries.....                                          | 61        |
| Oil and Gas Production.....                                              | 62        |
| Spill Containment and Clean-up.....                                      | 62        |
| Cost Estimates for a Catastrophic Spill in the Gulf of Mexico .....      | 62        |
| <i>Cook Inlet, Alaska</i> .....                                          | 63        |
| Physical and Biological Resources .....                                  | 63        |
| Subsistence Use .....                                                    | 64        |
| Coastal Recreation .....                                                 | 65        |
| Commercial Fishing.....                                                  | 66        |
| Spill Containment and Clean-up.....                                      | 66        |
| Cost Estimates for a Catastrophic Spill in the Cook Inlet.....           | 66        |
| <i>The Chukchi and Beaufort Seas, Alaska</i> .....                       | 67        |
| Physical and Biological Resources .....                                  | 67        |
| Subsistence Use .....                                                    | 68        |
| Commercial Fishing.....                                                  | 71        |
| Spill Containment and Clean-up.....                                      | 71        |
| Cost Estimates for a Catastrophic Spill in the Chukchi and Beaufort..... | 71        |
| <i>Estimated Cost of a Catastrophic Tanker Oil Spill</i> .....           | 72        |
| Detailed Frequency Calculations .....                                    | 73        |
| <b>References and Select Literature .....</b>                            | <b>79</b> |

## Introduction

This paper describes the factors considered and the calculations behind the Net Benefits analysis found in part IV.C of the decision document for the 2012-2017 Proposed Final Program. It has been revised from the draft version dated October 2011 (BOEM 2011-050).

Because the theoretical foundation and background for the Net Benefits analysis is covered extensively in prior program documents (King, 2007), it is not repeated in this paper. However, the Bureau of Ocean Energy Management (BOEM) has updated data sources and improved the two simulation models used to estimate the program's Net Benefits.<sup>1</sup> Detailed documentation reports describing the factors used and the model design of the OECM and the Market Simulation (MarketSim) model will be published with the Proposed Final Program decision document (Industrial Economics, Inc. et al., 2012a and Industrial Economics, Inc., 2012b respectively). This analysis combines the measures provided by these models and geological, environmental, and economic data and evaluations by BOEM analysts into a Net Benefits value.

The Net Benefits analysis does not incorporate the costs of low probability/high consequence events, but this paper does consider catastrophic oil spills separately. The rarity and unpredictable nature of the many factors that determine the severity of a large oil spill's impact make efforts to quantify expected costs far less meaningful than the other measures developed by the OECM and MarketSim analysis. There is no question that a large extended discharge of oil resulting from OCS production activities could cause a catastrophic event which would greatly alter our estimate of the net benefits of leasing. But the extreme rarity of the occurrence of such an event (only one data point over the last 30 years, or six programs, and none with the enhanced safeguards in place today) leads to a miniscule statistical likelihood. Reducing such an effect to an expected value, as BOEM does for the other more routine factors evaluated in the Net Benefits analysis, would obscure the consequence of a discrete event like a catastrophic spill, should it actually occur. Furthermore, the potential costs of a catastrophic oil spill, should it occur, are extremely variable and must be extrapolated from a very limited data set, rendering them more speculative than are the other Net Benefits estimates. Hence, BOEM assesses the possible risks and impacts of a catastrophic spill outside the Net Benefits analysis. BOEM deals with risks and conditional estimates for such an event in a separate assessment in the last part of this document.

## Net Benefits Analysis

The Net Benefits analysis is a benefit-cost assessment by program area of the national gain from anticipated production of economically recoverable oil and natural gas

---

<sup>1</sup>The Offshore Environmental Cost Model (OECM) calculates the environmental and social costs of the recommended and alternative options for each program area. The Market Simulation Model (MarketSim) estimates the energy market's response to the program's Exploration and Development (E&D) scenarios, calculates conservation and energy substitutions for OCS oil and gas under the No Sale Option (NSO) in each program area, and calculates the net change in consumer surplus anticipated from the program.

resources expected to be leased and discovered as a result of the program. The results summarized in the decision document provide the Secretary of the Interior estimates of benefits and costs from holding a sale (or sales) or selecting the No Sale Option (NSO) in any or all of six program areas.<sup>2</sup> The measure of Net Benefits reflects the net producer, consumer, and fiscal gains to the nation above the finding and extraction costs, as well as the environmental and social costs, from the anticipated exploration, development, and production in each program area. The analysis also adds to the program area estimates of the environmental and social costs avoided, and deducts the domestic profit forgone, which are associated with obtaining replacement energy from other sources that the markets would tap should any of the NSOs be selected.

Selection of the NSO in any of the program areas means that no new leasing would take place in that area for at least five years. Thus, domestic oil and natural gas supply would be reduced by the amount of production expected from the no sale area.<sup>3</sup> Without this new production, there would be less domestic oil and natural gas supply but little change in domestic demand for energy. The resulting gap between domestic demand and supply would be met by additional imports (primarily of foreign sourced oil delivered by supertankers), more domestic onshore oil and gas production, more biofuel and coal production, and other energy market substitutes. Energy usage would be a bit lower than it would be with the sale(s) due to a slight increase in domestic prices (primarily for natural gas). The section titled *Market Simulation Model* details how MarketSim estimates the energy sources that would replace outer continental shelf (OCS) production anticipated from this program should the NSO be chosen in one or more program areas.

The Net Benefits analysis provides the Secretary of the Interior with a logically consistent basis for considering the values and alternative sale options for each program area. It only includes the effects of the upstream oil and gas activities, not those associated with the downstream production (e.g., refining) of petroleum products.<sup>4</sup> Other factors such as possible future innovations in energy efficiency or renewable energy technologies are not included in the Net Benefits analysis. Since the Secretary's authority is confined to a decision on the leasing program options, the Net Benefits analysis focuses on those options and not other policy levers that might change the baseline energy forecast. The baseline is a policy-neutral energy forecast provided by the U.S. Energy Information Administration (EIA). Although other changes such as new energy efficiency standards and renewable energy technologies are not considered, they are discussed in a related program document titled *Energy Alternatives and the Environment* (Industrial Economics, Inc., 2012c).

---

<sup>2</sup> If the NSO is selected for each program area, it is identical to the no action alternative (NAA) referred to in the EIS. The effects of the NAA are the market response and corresponding environmental and social costs absent a Five Year Program.

<sup>3</sup> Conceivably the oil and gas supply may only be delayed until a future program could offer the NSO area, but this analysis does not incorporate that possibility. Previous administrative decisions to remove areas from Five-Year schedules have proved durable, and this makes future offers of the area highly uncertain, and in any event the substantial present value discount that would be applied to any such production makes its omission from future supplies insignificant for this analysis.

<sup>4</sup> The *Market Simulation Model* section discusses the energy market substitutions of the NSO which would result in approximately the same downstream effects.

## Methodology

The Net Benefits analysis enumerates three levels of domestic benefits and costs associated with the program: *net economic value*, *net social value*, and *net benefits*. Figure 1 summarizes the calculations completed for each program area to quantify the private and social gains and losses associated with adopting the proposed decision option for that area, as opposed to choosing the NSO. Values calculated for the program are discounted at a (real) social discount rate of three percent to the beginning year of the program (2012).

The first row of Figure 1 calculates the gross revenue of anticipated oil and gas production over the lifetime of the leases issued in a sale area under the Proposed Final Program. It measures the direct contribution of that area to the gross domestic product at the different assumed oil and gas price levels. The basic approach of the Net Benefits analysis is to adjust this gross value to reflect the full scope of gains to the nation by estimating the value gained from this economic activity as well as losses associated with generating that economic value. The rest of Figure 1 lists the categories of benefits and costs involved in this Net Benefits calculation for each Proposed Final Program sale area.

**Figure 1: Components of the Net Benefits Analysis**

|   |                                            |   |                                                                                                                                |   |                                 |
|---|--------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------|
| 1 | Anticipated Production of the Program Area | x | Assumed Oil and Gas Price Levels                                                                                               | = | <b>Gross Revenue</b>            |
| 2 | Gross Revenue                              | - | Private Finding and Production Costs                                                                                           | = | <b>Net Economic Value (NEV)</b> |
| 3 | NEV                                        | - | Environmental and Social Costs<br><i>less</i><br>Environmental and Social Costs of Energy Substitutes (Resulting from the NSO) | = | <b>Net Social Value (NSV)</b>   |
| 4 | NSV                                        | + | Consumer Surplus Benefits<br><i>less</i><br>Lost Domestic Producer Surplus Benefits                                            | = | <b>Net Benefits</b>             |

The second row measures the net economic value (NEV), sometimes called economic rent, generated by the new OCS production.<sup>5</sup> The NEV can be viewed as the profit available to be shared by the oil industry and the government from producing the OCS resources made available. Because this is a surplus remaining after the costs of exploration and production have been subtracted from gross revenue, it can be shared between producers and government without distorting the allocation of capital and labor to this activity. To the extent that factors of production employed as a result of sales in the program area have less lucrative opportunities elsewhere, the selection of the NSO would impose additional private costs in the form of lost wages, etc. This analysis

<sup>5</sup> Economic rent is typically defined as payment for goods and services beyond the amount needed to bring the required inputs into a production process and sustain supply.



ignores these potential private losses because no reliable measures exist to calculate them. However, as explained in the next two paragraphs it does include two offsetting costs associated with the NSO.

The third row measures the net social value (NSV) of sales in the program area by incorporating the external costs of the OCS activity relative to those from the NSO.<sup>6</sup> Such external costs occur because producers and consumers do not bear all the costs generated by the program. The process used here estimates both the external costs associated with OCS production enabled by offering the area and those that would arise from replacements for that production which would occur absent any part of the program under the NSO. In this formulation, consumption of oil and natural gas and thus the external effects like CO<sub>2</sub> emissions associated with fossil fuel use remain essentially the same so they are omitted in this analysis. Because external effects attend both OCS and replacement production situations, the NSV calculation combines the *difference* between those costs with the NEV to calculate the NSV for the Proposed Final Program areas.

The fourth row adds the net consumer surplus gain from the each program area to this NSV. Consumer surplus refers to the benefit buyers enjoy because they do not have to pay as much as they would have been willing to for the good consumed. A producer surplus also occurs when producers receive more than the minimum price they would have been willing to accept to produce and sell the good. Incremental oil and gas supplied from each program area increases domestic consumer surplus by reducing oil and natural gas prices and increasing overall consumption slightly. However, it also decreases both domestic and foreign producer surplus by reducing the price producers receive and by displacing some sales they would make under the NSO. This lost producer surplus from the program lowering oil and natural gas prices and displacing replacements under the NSO can also be viewed as a measure of the NEV lost due to the program. Rather than deduct this lost NEV in the second row of Figure 1, the domestic portion of it is accounted for in the fourth row calculation. The net consumer surplus benefits added to the NSV in this analysis thus reflects the difference between the increase in domestic consumer surplus and the decrease in domestic producer surplus attendant to the program. Basically, this net consumer surplus gain measures the domestic consumer surplus benefit from the resulting lower price of imported oil and gas relative to the existing price level for those imports.

### **Net Economic Value Derived from a Program Area**

The first step in the Net Benefits analysis is calculation of the net economic value (NEV) associated with lease sale(s) in each program area. Overall, NEV measures an element of social value that may be generated by lease exploration, development, and production activities under certain assumptions about oil and gas prices, resources, etc. The approach to determining NEV is similar to customary cash flow modeling, except that the calculations are done at a highly aggregated level and discounted at the social rate. As explained below, the calculations start with the total production that BOEM estimates to be profitable to explore for and produce in the area at these assumed oil and gas prices.

---

<sup>6</sup> External costs occur when oil and gas production results in effects like air pollution that cause uncompensated environmental costs or loss of property value that cause uncompensated social costs.

Then aggregate costs of equipment, plant, labor, etc. are subtracted from aggregate revenues (production times price). Note that this analysis does not attempt to model individual firms or projects.

BOEM calculates the NEV for each program area using anticipated production amounts and rates consistent with the projected undiscovered and un-leased portions of the economically recoverable resources in each program area. The section titled *Assumptions and Input Data* describes how BOEM experts estimate these amounts and rates. For the sake of consistency, the NEV estimates are based on the same schedules of exploration, development, and production activities (E&D scenario) modeled in the OECM to obtain the environmental and social costs for each program area and, again, in the environmental impact statement (EIS) to evaluate the impact of that activity on the human environment.

Two broad clarifications about NEV can be stated here. First, the NEV is based on discounting, at a social rate of three percent, the revenue from the new OCS oil and gas produced minus the costs of exploration, development, and production. In contrast, the underlying resource assessment is properly conducted using private discount rates appropriate for the risk and return expected in the oil sector. This is the case because the NEV analysis starts by identifying the amount BOEM expects companies will regard as profitable. For that amount the analysis subsequently weighs the cost of labor, equipment, etc. needed to produce those resources against the value of the produced oil and natural gas. To the extent these production costs reflect opportunity costs of dedicating the labor, equipment, etc., to the OCS activities instead of to alternative uses for those inputs, this provides a measure of social value.

Second, note that NEV analysis alone does not ensure that the resulting program area measures represent their maximum values conditional on optimal configuration of sale offerings. Decisions related to sale configurations within a program area are postponed until the date of each sale approaches. However, it is important to know now whether there appears to be at least some acreage within each of the areas being considered for inclusion in the Five Year Program that appears to be worth leasing in the near term. Accordingly, BOEM conducted a “hurdle price” analysis on lease sale timing, discussed in Section III.B. “Fair Market Value Options” in the decision document, to establish whether inclusion of each of the six program areas being considered in this Proposed Final Program is consistent with economic optimality. The purpose of this optimal timing analysis is to examine the possibility that withholding an area until the next program might be of greater value to society, considering the general characteristics of geologic fields that may reside in an area. That analysis has demonstrated that at projected resource prices, all program areas under consideration are likely to have one or more geologic fields that are optimal to offer for lease under the Five Year Program. Thus, BOEM concludes that there is no sound economic basis for excluding any of the program areas under consideration from inclusion in the Five Year Program.

The equation for calculating NEV for a program area is:

$$NEV_i = \sum_{t=1}^n \left[ \frac{(AG_{it} * PG_t) + (AO_{it} * PO_t) - C_{it}}{(1 + r)^t} \right]$$

where:

$NEV_i$  = the estimated net present value of gross economic rent in the  $i^{th}$  program area. i.e., "net economic value".

$AG_{it}$  = the anticipated production of natural gas from program area  $i$  in year  $t$

$PG_t$  = the natural gas price expected in year  $t$

$AO_{it}$  = the anticipated production of oil from program area  $i$  in year  $t$

$PO_t$  = the oil price expected in year  $t$

$C_{it}$  = a vector of exploration, development, and operating costs

$r$  = a social discount rate

$n$  = years from start of the program until the end of last production from leases sold within the Five Year Program timeframe

BOEM determines the NEV for three separate flat real price cases assumed in the development of the E&D scenarios and corresponding production deemed likely from each of the proposed program areas. Table 1 summarizes these NEV estimates.

**Table 1: Net Domestic Economic Value**

|                              | Net Economic Value |           |            |
|------------------------------|--------------------|-----------|------------|
|                              | (\$ billions)*     |           |            |
|                              | Low Price          | Mid-Price | High Price |
| <b>Central GOM</b>           | 36.66              | 153.59    | 287.16     |
| <b>Western GOM</b>           | 10.31              | 38.73     | 69.56      |
| <b>Eastern GOM (2 sales)</b> | **                 | 2.30      | 5.32       |
| <b>Chukchi Sea</b>           | 5.02               | 31.06     | 135.37     |
| <b>Beaufort Sea</b>          | 0.14               | 3.68      | 16.57      |
| <b>Cook Inlet</b>            | 1.56               | 3.71      | 12.30      |

All values are discounted at a real discount rate of 3 percent.

\*The low-price case represents a scenario under which inflation-adjusted prices are \$60 per barrel for oil and \$4.27 per mcf for natural gas throughout the life of the program. Prices for the mid-price case are \$110 per barrel and \$7.83 per mcf. Prices for the high-price case are \$160 per barrel and \$11.39 per mcf.

\*\* Given current information, no production is expected from the Eastern GOM Program Area at the low-price case, whether from one or two sales; therefore NEV is assumed to be zero. If exploration occurs, NEV could be either negative—if no production results—or positive—if successful exploration leads to production. The estimated value of Eastern GOM resources is highly sensitive to changes in information, so placing a second sale on the schedule would provide flexibility to adapt to such changes.

The NEV, generated as a result of the market value of production exceeding the cost of exploration, development, and production, is captured in part by the federal government and accrues to the general public in the form of leasing revenues (i.e., cash bonuses,

rentals, and royalties) and corporate income tax revenues paid by lessees, and retained by lessees as economic rents roughly in the form of corporate profits. Conceptually, only the U.S. share of the NEV contributes to domestic welfare, so the Net Benefits calculation reported here includes only the likely domestic share as is determined below.

The Federal share of the NEV estimates shown above in Table 1 ranges from 45% to 65% for the different program areas and price cases. A recent study done for BOEM and the Bureau of Land Management estimates that the taxpayer share (called government take) under the current U.S. offshore fiscal system from representative future OCS projects will be somewhat larger (between 64% and 79%) (Agalliu, 2011).<sup>7</sup> Lower price and perhaps higher production cost assumptions relative to those used here account for the larger government share found in this external study. In any case, the bulk of NEV is collected by the domestic fiscal system on behalf of U.S. taxpayers so all of it contributes to domestic net benefits.<sup>8</sup>

The private sector share of NEV that flows to U.S. citizens also contributes to domestic net benefits. While a portion of the private share of the NEV derived from new OCS production flows to non-U.S. citizens through profits going to foreigners holding shares in U.S. oil companies, counter flows go to U.S. citizens holding shares in the foreign oil companies active on the U.S. OCS.<sup>9</sup> BOEM does not have information on the nationality of shareholders in OCS operators, but aggregate data available show U.S. holdings of all types of foreign securities is slightly higher (\$6.2 trillion) than foreign holdings of U.S. securities (\$5.9 trillion).<sup>10</sup> BOEM has no reason not to expect the same pattern to hold for those companies that win new leases under the program, so BOEM assumes foreign shareholders in U.S. oil companies and U.S. shareholders in foreign oil companies active on the OCS balance each other. That leaves only the need to net out the private share of NEV going to foreign shareholders in these foreign oil companies. As a rough proxy for the share of foreign beneficial owners of activities on the U.S. OCS, BOEM uses EIA's estimate that 13% of U.S. domestic oil supply and 10.6% of U.S. domestic gas supply are produced by subsidiaries of foreign oil companies.<sup>11</sup> Applying these foreign interest shares of each product to the average 35% to 55% private sector share of NEV, BOEM finds that about 95% of total NEV generated by the program

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7 See *Comparative Assessment of the Federal Oil and Gas Fiscal System*, page 5. Available at <http://www.boem.gov/Oil-and-Gas-Energy-Program/Energy-Economics/Fair-Market-Value/Fair-Return-Report.aspx>

8 The government tax and leasing revenue portion of the NEV calculation does not separate out special incentives or subsidies. Such government subsidies do not change the NEV, only how that NEV is distributed between the government and producing firms. Special tax considerations such as the depreciation of tangible and intangible expenses similarly do not affect total NEV, only the timing and magnitude of payments between producers and the government. Subsidy effects also occur in replacement sources that would be used under the NSO, so their omission in this relative analysis merely assumes that these subsidies are proportionally equal in the two supply sources. Subsidies and taxes that affect downstream consumption, such as the gasoline tax, are not considered in the Net Benefits analysis because they are beyond the scope of the analysis and are not within the authority of the Secretary to control.

9 All companies that operate on the OCS are American corporations, but they may be subsidiaries of foreign parent companies.

10 See <http://www.bea.gov/newsreleases/international/intinv/intinvnewsrelease.htm>

11 See <http://www.eia.gov/emeu/finance/fdi/oilgas.html>

accrues to U.S. interests. Accordingly, BOEM includes that adjustment in the NEV reported above for each program area. On the other hand, foreign shareholders invest a considerable amount of money in the U.S. economy to buy their shares (to obtain the profits). It would be difficult to estimate those investments, and BOEM has not reduced national costs to account for this inflow of capital.

BOEM notes that the NEV is different from the assessment of the regional economic impact of OCS activities measured elsewhere. (See the *Equitable Sharing Analysis* for the economic impact of the program in part IV.C.4 of the Proposed Final Program decision document.) A regional economic impact analysis measures the gross value produced by, or relative importance of, different industries or sectors, such as oil and gas production, recreation, etc., within a local or regional economy. But that approach does not reveal the contribution to social wellbeing from those activities because it does not consider the alternative activities forgone to provide these gross values. Accordingly, the NEV concept of value is a more appropriate measure to compare the costs and benefits of policy alternatives.

### **Net Social Value Associated with a Program Area**

Whereas the NEV analysis considers the private costs incurred by the firms that explore for and develop OCS oil and gas resources, society also incurs external or environmental and social costs from OCS activities and facilities associated with offshore oil and gas production. These types of costs would also arise from substitute sources of energy that would be tapped in the absence of this new OCS production. The net social value (NSV) is the NEV less the present value of the difference between the environmental and social costs anticipated from the program area options and those costs for sources that would replace OCS production if any of the NSOs were selected.

The external costs arise from environmental (e.g., pollution effects on human health or agricultural productivity) and social (e.g., oil spill effects on recreational fishing or beach use) damages which can occur during the exploration, development, production, and transportation of OCS oil and gas resources or from their NSO replacements. The external costs reflect actions taken by lessees under applicable regulations to prevent oil spills, mitigate air pollution, and avoid accidents. The private costs incurred to mitigate these external effects are included as avoidance and abatement costs in the NEV analysis.

The BOEM uses the OECM to calculate the external environmental and social costs from the recommended option in comparison to the NSO replacement energy sources as identified by MarketSim for each of the program areas. Before turning to the net environmental and social cost calculation in Table 4, it is important to appreciate the scope of effects quantified by these two models.

### **Market Simulation Model**

The Market Simulation Model (MarketSim) estimates the substitutions for offshore oil and gas production that would occur in the absence of sales in each of the program areas. MarketSim calculates the additional imports, onshore production, fuel switching, and reduced consumption of energy that would replace the production in each program area

should any of the NSOs be selected, as well as the associated change in net domestic consumer surplus.

MarketSim is an Excel-based model for the oil, gas, coal, and electricity markets calibrated to a special run of the EIA's National Energy Modeling System (NEMS). The NEMS baseline used in the MarketSim is a modified version of the EIA's 2009 Annual Energy Outlook Reference case (updated to reflect the American Recovery and Reinvestment Act) which includes no new OCS lease sales, i.e., selecting the NSO for every program area.<sup>12</sup> Removing the EIA's expectation of production from new OCS leasing allows us to investigate alternative new OCS leasing scenarios within the EIA's broad energy market projection using MarketSim. The Net Benefits analysis makes no assumptions about future technology or policy changes other than those reflected in the EIA NEMS forecast.<sup>13</sup>

BOEM introduces the E&D scenario from each program area into the MarketSim as a shock to the baseline, i.e., the NSO in each program area, triggering a series of simulated price changes until each fuel market reaches equilibrium where supply equals demand. MarketSim uses price elasticities derived from NEMS runs and from other published elasticity studies (examples: Dahl, 2010 and Serletis, 2010) to quantify the changes that would occur to prices and energy production and consumption over the 40-year period of production from the program area. Tables of the demand and supply elasticities used in the model are shown in the MarketSim documentation, *Consumer Surplus and Energy Substitutes for OCS Oil and Gas Production: The Revised Market Simulation Model* (Industrial Economics, Inc., 2012b).

There are important enhancements to the MarketSim modeling approach for this analysis compared to past Five Year Programs. The current version increases both the scope and detail of modeled fuel markets by adding coal and electricity markets to account for substitution between alternate fuel sources. It also incorporates feedback effects between the markets for substitute fuels using cross-price elasticities between the fuels. For instance, a gas price decrease from added supplies increases the quantity of gas demanded which then decreases the demand for coal, which in turn decreases the price of coal thereby dampening the initial increased gas demand. In order to more accurately depict this substitution, the current version also increases the level of detail at which it models production and consumption. Each fuel's demand is decomposed into residential, commercial, industrial, and transportation uses with its own-price and cross-price elasticity specific to each submarket. Additionally, each fuel is modeled for up to eight components of supply (e.g., oil from domestic onshore, domestic offshore, Alaska, Biofuels, Other and imports). This complexity allows MarketSim to simulate changes in energy prices and the resulting substitution effects between fuels in the presence of changes in OCS oil and gas production. Additional details about how MarketSim models

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12 NEMS projections including production from new OCS leasing is typically reported in EIA's Annual Energy Outlook.

13 See *Energy Alternatives and the Environment* for a discussion of other technology and policy changes (Industrial Economics, Inc. 2012c).

fuel substitutions across energy markets and sources are described in the MarketSim documentation (Industrial Economics, Inc., 2012b).

For the NSV calculation, BOEM compares baseline MarketSim results with results when production from the program area is included to determine the quantity and type of fuel use that would occur if no new leasing were permitted in the OCS program area.<sup>14</sup> The energy market substitutions must be factored into the Net Benefits analysis because the selection of the NSO in one or more program areas will lead to slightly higher oil and gas prices and additional domestic production, increased imports, and fuel switching to meet the continuing demand for oil and gas resources.<sup>15</sup>

Table 2 shows, for the mid-price scenario, the energy market substitutions expressed in barrel of oil equivalent percentages that would occur from excluding all planning areas.<sup>16</sup> To illustrate the calculation method, consider the measure which shows the replacement of 60% of forgone OCS production by oil imports. With all program areas included, the total offshore oil production is estimated to be 50.3 BBOE under the mid-price scenario over 40 years. If the NSO were selected in each program area, the offshore production baseline is projected to be only 40.3 BBOE. The difference of 10 BBOE in forgone new OCS production would be replaced with increased imports, onshore production, etc. To determine the percentage of the forgone OCS production replaced by increased oil imports, BOEM subtracts imports anticipated under the Proposed Final Program (149.3 Bbbl) from the imports expected in the baseline (155.3 Bbbl) and divide by the difference in total forgone OCS production  $[(155.3-149.3)\text{Bbbl}/10 \text{ BBOE}]$ , which equals 0.6 or 60% in percentage terms.

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14 MarketSim is a national model and does not look at variation in gas prices in different regions.

15 The MarketSim does not include estimates of changes in production from existing OCS leases in response to the selection of the NSO for one or more program areas. While this may be considered for future versions of the model, any such OCS response effect would depend on numerous factors, such as whether the decision was for one or multiple areas, the specific areas to which it applied, companies' beliefs as to whether the decision implied the direction for future programs, and changes in the relative attractiveness of opportunities elsewhere for investment as decisions were made. Industry could pursue strategies that create short-term and long-term effects with offsetting results. Therefore, it is not even certain that the OCS response effect would result in higher production over the period of analysis.

16 The actual percentages will vary between program areas depending upon whether a particular area is gas or oil prone.

**Table 2: Substitute Energy Results of the No Sale Options<sup>17</sup>**

| <b>Energy Sector</b>                                                  | <b>Percent of OCS Production Replaced</b> |
|-----------------------------------------------------------------------|-------------------------------------------|
| <b>Onshore Production</b>                                             | <b>16%</b>                                |
| Onshore Oil                                                           | 1%                                        |
| Onshore Gas                                                           | 15%                                       |
| <b>Imports</b>                                                        | <b>68%</b>                                |
| Oil Imports                                                           | 60%                                       |
| Gas Imports                                                           | 9%                                        |
| <b>Coal</b>                                                           | <b>5%</b>                                 |
| <b>Electricity from sources other than Coal, Oil, and Natural Gas</b> | <b>3%</b>                                 |
| <b>Other Energy Sources</b>                                           | <b>2%</b>                                 |
| <b>Reduced Demand</b>                                                 | <b>6%</b>                                 |

On an aggregate basis, these estimates indicate that 94 percent of the likely new OCS production would be replaced by increased production from other fuel sources, generating the attendant environmental and social costs for that substitute activity. OECM estimates those costs that occur within the U.S. boundaries including territorial waters. The remaining forgone OCS production is not replaced, but rather, the slightly higher market clearing prices for oil and gas reduce quantity demanded by six percent of the forgone OCS production.

### **Offshore Environmental Cost Model**

BOEM employs the Offshore Environmental Cost Model (OECM) to determine both the environmental and social costs that would result from OCS activities in each program area and the costs that would result without new leasing (i.e., the No Sale Option). The BOEM updated the OECM inputs and model structure from previous Five Year Programs for analyzing this program.

The new OECM is an Access-based model that uses the levels of OCS activity from the E&D scenarios employed in the NEV and the EIS along with the energy market substitutions from MarketSim to calculate net environmental and social costs. The OECM analysis evaluates the following six environmental and social cost categories for each program area and replacement NSO source. The impacts from each category are summed together, with equal weighting, to derive the environmental and social costs of the program relative to the NSO.

#### Environmental cost categories

**Air Quality:** The monetary value of the human health, agricultural productivity, and structural damage caused by emissions generated by oil and gas activity.

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<sup>17</sup> Percentages in this table can be interpreted as “5% of the reduced production from the selection of the NSO in a program area will be replaced with coal.”



- Emissions are calculated based on activity levels and the environmental and health effects are determined by the dispersion and monetization done by the Air Pollution Emission Experiments and Policy (APEEP) analysis model.<sup>18</sup>
- A summary of the methodology is found in the section titled *OECEM Air Emissions Modeling*.

**Ecological:** Restoration cost for habitats and biota injured by oil spills.

- Consistent with the standard economic view of natural resources as assets that provide flows of services, ecosystems are understood to provide a flow of ecosystem services. These services are valued by society, as demonstrated by the willingness to pay for their protection.
- Changes in the quality or quantity of these services (e.g., due to ecosystem injuries caused by oil spills) have implications in terms of the value of the benefits they provide.
- The model uses a habitat equivalency analysis (HEA) approach in which the cost of creating the equivalent habitat area measures the dollar damages assigned to the lost ecosystem services.
- A summary of the considerations included in this estimate is found in the section titled *OECEM Ecological Modeling*.

#### Social cost categories

**Recreation:** The loss of consumer surplus that results when oil spills interfere with recreational offshore fishing and beach visitation.

- Estimates are based on the use value of recreational fishing and beach visitation because they capture the primary recreational services of coastal and marine resources that would be affected by OCS activity.
- These are the services for which relevant data are generally available on a consistent, national basis.

**Property Values:** Impacts of the visual disturbances caused by offshore oil and gas platforms and losses in the market value of residential properties caused by non-catastrophic oil spills.

- Impact is defined as the annual loss in potential rent from residential properties that result from visual disturbances from platforms as well as from damage from oil spill events.
- The property damage from oil spills is calculated as the product of the property value per linear meter of beach, the after tax discount rate, the fraction of year taken up by the event, and the length of oiled shore.

**Subsistence Harvests:** The replacement cost for marine subsistence species members killed by non-catastrophic oil spills in Alaska.

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<sup>18</sup> Available at <https://seguecommunity.middlebury.edu/view/html/site/nmuller/node/2367900>

- The model assesses the impact of OCS oil and gas activities on Alaska harvests by estimating oil spill-related mortality effects among general subsistence species.
- The model assumes that all organisms killed by oil spills would have been harvested for commercial or subsistence purposes, determines the subsistence component of this lost harvest, and calculates a replacement cost.

**Commercial Fisheries:** The loss from extra fishing effort imposed by area pre-emption due to the placement of oil and gas infrastructure (platforms and pipelines).

- The model assumes that there will be buffer zones around platforms. In most cases the buffer zones will be a circle with a radius of 805 meters (0.5 miles).
- The model also assumes that the total amount harvested is unaffected by oil and gas infrastructure since nearly all fisheries in OCS waters are managed with annual catch limits set below the harvestable biomass. But the buffer zones force the harvest activities to less efficient fishing areas.
- Non-catastrophic oil spill impacts are likely to result in only temporary fishery closures. Since most fisheries are managed through catch limits, a temporary closure will still give the industry ample opportunity reach the catch limit.

The OECM uses the parameters set forth in the E&D scenario to estimate annual oil production and location of occasional non-catastrophic spills associated with each platform group. The OECM feeds this information into the Oil Spill Impact Modeling Program (SIMAP) which uses regressions to estimate the physical damage from oiling.<sup>19</sup> Then, using impact equations developed for the cost categories of recreation, property values, subsistence use, and ecological effects, the OECM employs the SIMAP regression outputs and anticipated spill size and location data to estimate costs. Due to the unique characteristics of the air quality and commercial fishing cost categories, the OECM employs the output from external modules to estimate non-catastrophic oil spill effects associated with OCS production in these two categories. Table 3 shows the OECM estimates for the six environmental and social cost categories that make up the external costs for the mid-price case of the Central GOM program area.

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<sup>19</sup> SIMAP is an oil spill impact modeling system providing detailed predictions of the three-dimensional trajectory, fate, impacts and biological effects of spilled oil.

**Table 3: OECM Cost Categories for Central GOM**

|                            | Program Costs | No Sale Option Costs |
|----------------------------|---------------|----------------------|
|                            | \$ millions*  |                      |
| <b>Environmental Costs</b> |               |                      |
| <b>Air quality</b>         | 5,681         | 17,193               |
| <b>Ecological impacts</b>  | 3.76          | 10.83                |
| <b>Social Costs</b>        |               |                      |
| <b>Recreation</b>          | 259           | 229                  |
| <b>Property values</b>     | 0.11          | 0.24                 |
| <b>Subsistence use</b>     | 0.00          | 0.01                 |
| <b>Commercial fishing</b>  | 0.17          | 0.00                 |

All values are discounted at a real discount rate of 3 percent.

\* These values are the OECM results for the mid-price case with prices of \$110 per barrel and \$7.83 per mcf.

The OECM is not designed to represent impacts from global climate change, catastrophic events, or impacts to unique resources such as endangered species. In the case of global climate change, BOEM would anticipate little differential effect compared to the NSO. For catastrophic events and impacts on unique resources, it is worth mentioning that such events and impacts are plausible in the NSO as well and their rarity make it problematic to develop statistical representations for them comparable to those for the other environmental effects modeled in OECM. In any case, the Final Five Year EIS (BOEM 2012a) discusses program relevant aspects of global climate change, catastrophic events, and impacts on unique resources. The impacts of catastrophic spills are discussed in the section entitled Catastrophic Oil Spill Analysis. The separate report, *Inventory of Environmental and Social Resource Categories Along the U.S. Coast* discusses information on resources at risk and potential impacts from a catastrophic oil spill (Industrial Economics, Inc., 2012d).

Because the largest social and environmental costs modeled for the 2012-2017 proposed program decision document are from OCS oil spills and air emissions and because assessing ecological values is not a widely understood topic, BOEM includes additional discussion below of how the OECM model handles these categories.

### **OECM Oil Spill Modeling**

The general public views oil spills as the most serious threat posed by the OCS program. The environmental effects of oil spills and the costs associated with those effects vary widely depending on variables such as the amount and type of oil spilled, the location of the spill, whether the spill hits shore, the sensitivity of the ecosystem affected, weather, season, and so forth. While it is not possible to deal with all these variables, information on the environmental and social costs associated with past oil spills have been relatively well documented so there is a reasonable basis for oil-spill risk and cost modeling in the literature.<sup>20</sup>

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<sup>20</sup> Oil spill information for the Arctic is based on SIMAP and earlier type A models which can be designed for both cold and warm water (French et al. 1996).

The risk of an oil spill includes both the probability of spill incidents of various types occurring and the consequences of those incidents.

$$\textit{Spill risk} = \textit{probability of spill} \times \textit{impacts of spill}$$

The probability of a spill is a combination of both the likelihood a spill will occur and the sizes of spills that do occur. The likelihood of a spill is measured as the historic ratio of the amount spilled to the amount produced. The analysis performed for the proposed program uses aggregate estimates for all the spills that the model suggests are likely from the E&D scenario and anticipated production. The model also includes the oil spill risk from tankers transporting oil from offshore to onshore and from Alaska to the West Coast in measuring the impacts of the program. For tankers carrying oil imported to the U.S under the NSO, the analysis applies the same spill risks as used for tankers transporting crude oil from Alaska to the West coast of the contiguous 48 states. The spill rates and sizes used in the model are based upon OCS spills from 1996-2010 of less than 100,000 barrels (Anderson, McMahon, and LaBelle, 2012). Data from that period captures the non-catastrophic spill rates experienced during the modern deepwater era of offshore drilling. New technologies and safety procedures make the oil spill rates from 1996-2010 more representative of future activity than those calculated over a longer historical period.

Impacts of a spill depend on the spill size, oil type, environmental conditions, present and exposed resources, toxicity and other damage mechanisms, and population/ecosystem recovery following direct exposure. OECM uses the existing and well-documented SIMAP (French-McCay, 2004 and French-McCay, 2009), to project consequences associated with a matrix of potential conditions. Region-specific inputs include habitat and depth mapping, winds, currents, other environmental conditions, chemical composition and properties of the oils likely to be spilled, specifications of the release (amount, location, etc.), toxicity parameters, and biological abundance.

Spills could occur in the context of OCS oil and gas exploration and development or in the context of imports that might serve as substitutes to OCS production. The SIMAP summarizes data that quantify areas, shore lengths, and volumes where impacts would occur with regression equations to simulate spills of varying oil types and sizes in each of the planning areas under a wide range of conditions. The results of these equations are then applied within the OECM. The oil spill modeling approach cannot and does not try to measure the effects of any individual spill.

The spill rates and sizes in the OECM also do not include huge, catastrophic spills such as the one from the *Deepwater Horizon*. The OECM is not designed to address catastrophic spills because the oil spill modeling that forms the basis of the OECM is conducted through SIMAP which models smaller surface releases. Subsurface releases likely in a catastrophic spill would have very different oil behavior and fate than what is currently modeled. As a result, if a catastrophic spill volume was included in the model, the model would treat the large volume spilled as a series of smaller spills thereby producing an unrealistic estimate. Doing so would mask the cost of the smaller, more

probable events. To allow both types of spills to be accurately calculated, the potential effects of catastrophic spills related to the Proposed Final Program are discussed in the section titled Catastrophic Oil Spill Analysis.

### **OECM Air Emissions Modeling**

The OECM estimates the level of air emissions associated with drilling, production, and transportation for any given year based on the 2012-2017 proposed program E&D scenarios and schedule.<sup>21</sup> Oil and gas exploration and development will lead to emissions of sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), volatile organic compounds (VOCs), particulate matter (PM), and other air pollutants that may adversely affect human populations and the environment. To account for these effects, the OECM includes an air quality module that calculates (1) the emissions—by pollutant, year, and planning area—associated with a given E&D scenario and production rate and, (2) the monetary value of the environmental and social damage caused by these emissions, estimated on a dollar-per-ton basis. The model estimates emissions based on a series of emissions factors derived from BOEM data, models the dispersion of these air emissions for planning areas along the coast of the contiguous United States, and converts the modeled emissions to monetized damages using a modified version of the APEEP developed by Muller and Mendelsohn (2006).<sup>22</sup>

Emissions factors for GOM activity were derived from the BOEM Gulfwide Offshore Activities Data System (GOADS) software. For Alaska, the emissions are estimated based on the manufacture and the Environmental Protection Agency emissions estimates for the equipment expected to be used. Emissions are scaled based on continual activity for the maximum amount of time the equipment might be in use. For tankers carrying oil imported to the U.S. under the NSO, the analysis applies the same emission factors used for tankers transporting crude oil from Alaska to the West coast of the contiguous 48 states. Emission factors for onshore oil and gas production for the contiguous United States under the NSO scenario are based on the Western Regional Air Partnership's (WRAP) 2002 emissions inventory for oil and gas activities in twelve western states. These states include Alaska, Arizona, California, Colorado, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, and Wyoming (WRAP, 2009). Because the WRAP inventory does not separate onshore and offshore emissions and the database is being used specifically for calculating onshore emissions, Alaska and California were excluded. Emission factors were developed for onshore oil and gas production by dividing the emissions estimates from the WRAP inventory (with some adjustments) by Department of Energy estimates of onshore oil and gas production in the ten states analyzed.

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21 The Net Benefits analysis does not include the environmental and social costs of the downstream impacts of consuming oil and natural gas. This analysis considers only actions within the Secretary's authority. Furthermore, most of the downstream emissions will stay approximately the same regardless of whether or not there is a new program.

22 The model monetizes damages associated with emissions in Alaska Planning Areas by scaling estimates of the monetized damages from APEEP estimates of damages per ton of emissions for the Oregon-Washington Planning Area. The emissions were scaled for both distance from shore and population.

The specific air pollution impacts that the OECM examines and monetizes include:

- Adverse human health effects associated with increases in ambient PM<sub>2.5</sub> and ozone concentrations;
- Changes in agricultural productivity caused by changes in ambient ozone concentrations; and
- Damage to physical structures associated with increases in SO<sub>2</sub>.

Because human health effects generally dominate the findings of more detailed air pollution impact analyses (EPA, 2010), excluding emissions-related changes in visibility, forest productivity, and recreational activity from the analysis is unlikely to have a significant effect on the results.

### **OECM Ecological Modeling**

The OECM treatment of ecosystem service losses covers some but not all such effects.<sup>23</sup> An appropriate evaluation of ecological and ecosystem service values involves analyzing the change in ecological and ecosystem service values of the program relative to the NSO. As in the other categories, OECM applies this conceptual approach in its evaluation of ecological and ecosystem service values for the program relative to the NSO by accounting for changes in ecological and ecosystem service values for several categories including ecological losses from oil spills, air quality, commercial fishing, recreational offshore fishing, beach use, property values and aesthetics, and subsistence harvest.

OECM does quantify certain ecosystem service losses. For the program costs it uses the probability of oil spills from new oil platforms and pipeline installations to estimate the associated ecosystem service losses. For the NSO it uses the increased probability/frequency of oil spills due to increased oil imports transported by tankers to estimate the likely associated loss of ecosystem services. In both instances, ecological losses are calculated via habitat equivalency analysis (HEA) within the framework of a natural resource damage assessment where the cost of restoration that equates ecological losses from the oil spill to ecological gains from restoration is used as the monetary measure of ecological damages.

OECM does not quantify other identifiable ecological and ecosystem service losses. For example, the Net Benefits analysis does not measure the effects of habitat disturbances from project footprints associated with new oil platforms, pipeline installations, drilling rigs, and any other new infrastructure (beyond incremental air emissions) on the OCS nor passive use losses for marine mammals and other threatened, endangered, and sensitive species adversely affected under the Proposed Final Program. But it also does not count ecosystem service losses (beyond incremental air emissions) that would occur under the

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<sup>23</sup> Following the definition given by the Millennium Ecosystem Assessment, ecosystem services can be classified into four categories: Provisioning services – goods produced from ecosystems such as food, timber, fuel, and water (i.e., commodities); Regulating services – benefits from regulation of ecosystem processes such as flood protection, disease control, and pollination; Cultural services – nonmaterial benefits from ecosystems such as recreational, aesthetic, and cultural benefits; and Supporting services – services necessary for production of other ecosystem services such as nutrient cycling and soil formation.

NSO. Such losses would arise from incremental habitat disturbances for development of additional onshore oil and gas, renewable energy, and coal resources. Passive uses associated with terrestrial mammals and other threatened, endangered, and sensitive species would also be adversely affected due to incremental development of onshore energy substitutes for offshore oil and gas not developed.

In general, the OECM estimates several types of use values associated with ecological and ecosystem services resulting either from direct or indirect use.<sup>24</sup> While OECM attempts to quantify the primary categories of ecological and ecosystem service values, it is not designed to represent impacts to unique resources such as endangered species. Such values would be associated with nonuse or passive use values.<sup>25</sup>

Evidence of nonuse values can be found in the trade-offs people make to protect or enhance environmental resources that they do not use. Nonuse or passive use values could be apparent under both the program and the NSO. Overall, an evaluation of nonuse or passive use values would involve determining the trade-offs made by the public between ecological and species impacts resulting from the incremental oil and gas development under the program versus the ecological and species impacts that would occur onshore from the incremental development of onshore oil, gas, and coal resources under the NSO.

An evaluation of the net change in ecological and ecosystem service values can be accomplished with a variety of economic methods. The most comprehensive approach to evaluating the economic value of ecological and ecosystem service impacts associated with the program versus the NSO would involve administering a nation-wide Stated Preference (SP) survey to determine the trade-offs made by the public. However, SP surveys have their strengths and weaknesses, and require a significant investment in time and resources to conduct from start to finish. Several other factors complicate the ability to implement an SP survey, such as uncertainties about locations of oil and gas development both offshore and onshore, types and extent of habitat disturbances, and types and extent of species impacts that are likely to occur.

Absent the ability to conduct a sound new study, the application of benefits-transfer technique can provide a reasonable approximation of various economic values. In general, the OECM utilizes benefits-transfer to estimate economic values associated with several categories of ecological and ecosystem services. The magnitude of those values

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24 Direct use involves human physical involvement with the resources, where direct use can be either consumptive use (e.g., activities that involve consumption or depletion of resources, such as logging or hunting) or non-consumptive (e.g., activities that do not involve resource depletion, such as bird watching). Indirect use involves the services that support the quality of ecosystem services or produced goods used directly by humans (e.g., climate regulation, flood control, animal and fish refugia, pollination, and waste assimilation from wetlands).

25 Nonuse values capture individuals' preferences for resources that are not derived directly or indirectly from their use. As such, nonuse values can accrue to members of the public who value resources regardless of whether they ever consume or use them. Factors that give rise to nonuse values could include the following: desire to preserve the functioning of specific ecosystems; desire to preserve the natural ecosystem to maintain the option for future use; feeling of environmental responsibility or altruism towards plants and animals

not captured by the OECM is difficult to determine without additional research. However, BOEM believes that the OECM provides a representative comparison of the relative size between the program and the NSO for most of the ecological and ecosystem service impacts likely to occur.

### Net Environmental and Social Costs for a Program Area

Returning to the calculation outlined in row 3 of Figure 1, in order to obtain the most accurate representation of the differential costs between a program area and the NSO, BOEM must estimate the environmental and social costs for both cases, with the difference in these costs from the program option and the NSO reflecting the net environmental and social costs of each program area. If OCS oil and, to a lesser extent, natural gas are not produced, imports of foreign oil will increase substantially. Most of this oil would be imported by tanker, entailing risks of oil spills and attendant environmental and social costs. Subtracting the environmental and social costs associated with these increased imports from the same category of costs related to OCS production yields the net environmental and social costs that BOEM attributes to new OCS activities. MarketSim quantifies the supply and demand side substitutions for offshore oil and gas production in the absence of lease sales in each of the areas. Then OECM calculates the environmental and social costs from both the program and the NSO for each proposed area.

### Net Social Value Results from the OECM and MarketSim

The net environmental and social costs in program area  $i$ ,  $NE_i$ , equal

$$NE_i = \sum_{k=1}^s \sum_{t=1}^n \left[ \frac{E_{ikt}}{(1+r)^t} \right] - \sum_{k=1}^s \sum_{t=1}^n \frac{A_{ikt}}{(1+r)^t}$$

where:

$NE_i$  = the net environmental and social costs in program area  $i$ .

$E_{ikt}$  = the cost to society of the  $k^{\text{th}}$  environmental externality occurring in program area  $i$  in year  $t$ .

$A_{ikt}$  = the cost to society of the  $k^{\text{th}}$  environmental externality occurring in program area  $i$  in year  $t$  from substitute production and delivery with the No Sale Option.

$r$  = social discount rate

For program area  $i$ , the net environmental and social costs  $NE_i$  are subtracted from  $NEV_i$  to obtain that program area's net social value,  $NSV_i$  associated with OCS production. The NSV does not include consumer surplus benefits resulting from changes in the market price of oil and gas due to the program, which are added in the next stage of the Net Benefits analysis.

Table 4 shows the net external costs BOEM estimates for each program area. The costs associated with the NSO in Table 4 attribute the costs to the program area in which the



NSO was selected. For example, NSO impacts listed for the Chukchi Sea would not actually occur in the Chukchi Sea, but rather along the contiguous U.S. coasts and onshore in places of oil, gas, or coal production. The environmental and social costs of the NSO are distributed to program areas in Table 4 based on the expected production from each program area. If benefits and costs are not allocated to the area of production, it would be impossible to link a decision to lease in a specific program area to the full costs and benefits likely to result from that decision. The environmental and social costs per barrel of the NSO are roughly the same in each of the program areas, but may vary based on whether the program area is more oil or gas prone. Areas with more expected production will have higher NSO environmental and social costs.

**Table 4: Environmental and Social Costs**

|                             | Program        |           |            | No Sale Option** |           |            | Net       |           |            |
|-----------------------------|----------------|-----------|------------|------------------|-----------|------------|-----------|-----------|------------|
|                             | (\$ billions)* |           |            |                  |           |            |           |           |            |
|                             | Low Price      | Mid-Price | High Price | Low Price        | Mid Price | High Price | Low Price | Mid-Price | High Price |
| <b>Central GOM</b>          | 3.47           | 5.94      | 6.94       | 10.08            | 17.43     | 20.26      | -6.61     | -11.49    | -13.32     |
| <b>Western GOM</b>          | 1.27           | 1.89      | 2.13       | 2.73             | 4.42      | 4.76       | -1.45     | -2.53     | -2.63      |
| <b>Eastern GOM (2 Sale)</b> | ***            | 0.06      | 0.07       | ***              | 0.11      | 0.17       | ***       | -0.05     | -0.10      |
| <b>Chukchi Sea</b>          | 0.04           | 0.08      | 0.15       | 0.24             | 0.43      | 1.03       | -0.20     | -0.36     | -0.89      |
| <b>Beaufort Sea</b>         | 0.02           | 0.02      | 0.03       | 0.05             | 0.58      | 2.30       | -0.03     | -0.56     | -2.27      |
| <b>Cook Inlet</b>           | 0.01           | 0.01      | 0.02       | 0.03             | 0.07      | 0.10       | -0.02     | -0.07     | -0.09      |

All values are discounted at a real discount rate of 3 percent.

\* The low-price case represents a scenario under which inflation-adjusted prices are \$60 per barrel for oil and \$4.27 per mcf for natural gas throughout the life of the program. Prices for the mid-price case are \$110 per barrel and \$7.83 per mcf. Prices for the high-price case are \$160 per barrel and \$11.39 per mcf.

\*\* Selection of the No Sale Option for any program area would result in greater reliance on other sources of energy (“energy substitutes”) to meet the demand that would have been satisfied with OCS oil and gas production anticipated from the proposed sale(s) for that area. These energy substitutes would also impose significant costs on society. See discussion above.

\*\*\* Given current information, no production is expected from the Eastern GOM Program Area at the low-price case; therefore environmental and social costs, whether from one or two sales, are assumed to be zero, as are the costs of replacing foregone OCS production with substitute sources of energy. If exploration occurs without subsequent production, the costs attributed to the sale(s) would be positive.

As shown in Table 4 for all program areas, the environmental and social costs of relying on the substitute sources of energy exceed those from producing the program area resources.<sup>26</sup> The difference between the costs of the energy market substitutes without a

26 BOEM notes the effects estimated by the OECM may be construed as substantial in absolute terms but fairly small in relative terms. For example, the OECM estimates environmental costs for the air emissions associated with a given E&D scenario. Although this is a large figure in monetary terms, these costs are small relative to the environmental costs associated with air pollutant emissions for the entire United States.

program area and the costs of each program area proposal is almost entirely due to two effects of the NSO. When oil from the new program is not available, increased onshore production of oil, gas, and other energy sources such as coal generates new air emissions. Also, replacement imports of oil cause corresponding increases in air emissions and oil spill risks from increased tanker operations along the U.S. coastal areas receiving the oil. Moreover, these added oil imports, along with additional onshore gas production, generate air emissions closer to population centers than occur with OCS oil and gas production. These discharges create a greater exposure influence on human health than do air emissions often many miles offshore. These extra external effects from replacement supplies are greater than those saved by the modest reduction in overall fossil fuel consumption anticipated under the NSO.

This positive environmental effect of the program omits several conceivable added external benefits. First, environmental and social costs resulting from foreign oil and gas production for export to the United States and from transportation of oil and gas to U.S. waters or borders are excluded from the model. Air emissions including greenhouse gases associated with increased ocean shipments adds to global if not U.S. environmental effects from oil production. Second, more coal usage in place of gas in electricity generation under the NSO would create further adverse environmental consequences. However, these downstream effects are omitted from our analysis. Third, part of the fiscal proceeds from OCS production serves as a funding source for environmental enhancements through the Land and Water Conservation Fund. Replacement fuel from private or foreign sources under the NSO does not support such efforts. An expanded discussion of some of these impacts is included in the section entitled Unmonetized Impacts.

The larger message of the discussion in the Net Social Value section is that a careful effort to assess the full range of environmental and social effects of the program indicates that they are not a burden imposed by the program and in fact appear to reinforce its other benefits.

### **Net Benefits Derived from a Program Area**

The last stage in the Net Benefits analysis is to add the net consumer surplus to the NSV. This is a surplus primarily because of the societal benefits derived from lower resource prices, and it is a net value because lost domestic producer surplus that would have been generated under the NSO at higher resource prices is deducted. Virtually all of the increase in net consumer surplus from the program occurs because the added OCS oil and gas production lowers the price consumers pay for imports of oil and gas products compared to the NSO situation. Only a small fraction (i.e., 0.52%) of the net consumer surplus is associated directly with the added OCS production. This is the case primarily because the added OCS production supplies only a small fraction of total domestic consumption. The measure of net consumer surplus is calculated using the MarketSim software model.

## **Estimation of Consumer Surplus in MarketSim**

To assess changes in the welfare of U.S. consumers under a given E&D scenario, MarketSim estimates the change in consumer surplus for each of the end-use energy markets included in the model. For a given energy source, changes in consumer surplus occur as a result of changes in both price and quantity relative to baseline conditions. In the OCS case the consumer surplus gains come almost entirely from the price reduction or pecuniary effects of increasing OCS oil and gas production. For that reason it is important to measure that change as accurately as possible. In addition to the direct effect of an increase in supply (rightward shift of the supply curve) measured by the own-price elasticity in the oil and the gas markets, MarketSim incorporates two other useful relationships in estimating this pecuniary gain.

First, the proposed Five Year Program would increase the amount of offshore oil and gas production supplied to the economy. The new oil and gas supply will affect other segments of the U.S. energy markets which create echo effects in the oil and gas market. For example, increased offshore gas production would reduce gas price which leads to a reduction (leftward shift) in coal demand. While reduced coal demand would in turn lower the equilibrium coal price, the gas demand curve as specified in the model already includes this feedback effect. Specifically, MarketSim incorporates these indirect effects through the use of cross-price elasticity arguments in the primary (e.g., gas in this example) market demand curve which generally plays out in a smaller equilibrium gas price reduction and gas quantity increase than indicated by the own-price elasticity alone. More detail on how MarketSim handles these effects is found in the model's documentation (Industrial Economics, Inc., 2012b).

Second, in addition to price elasticity effects, MarketSim uses a technique that bases the amount of energy consumed and produced in a given year partially on the quantity consumed and produced in the prior year. That relationship is supported by two aspects of fuel demand. One is that income levels, which drive much of fuel demand, change only gradually from year to year. The other is that fuel is consumed to a large extent in conjunction with durable capital equipment to produce goods or services. Thus, in MarketSim, the existing level of income and the size of the capital stock are responsible for influencing a certain level of oil and gas consumption that is independent of resource price effects. Therefore, determination of where equilibrium resource prices settle across multiple markets, and hence estimation of changes in consumer surplus associated with the Five Year Program, involve careful consideration of market factors other than only the traditional demand and supply elasticities.

## **Netting out Domestic Producer Surplus**

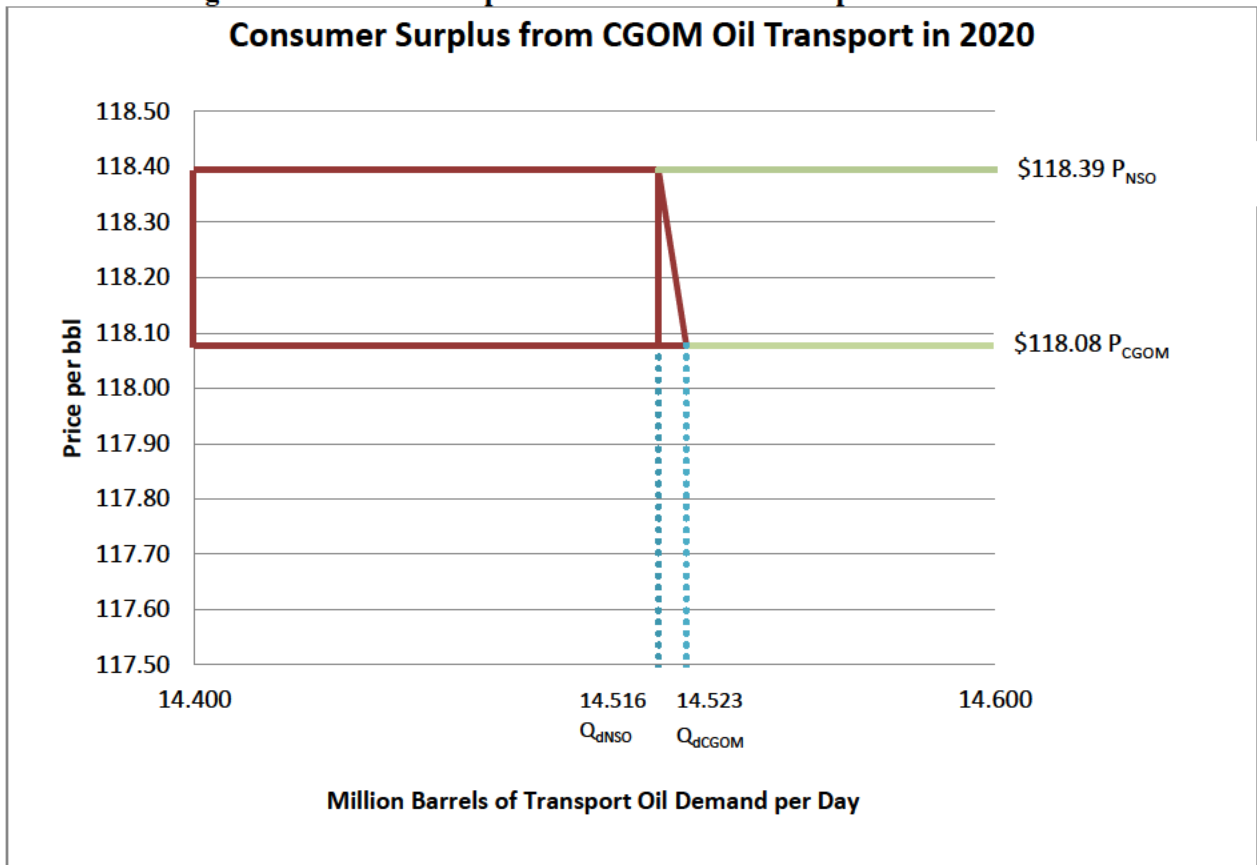
The equilibrium change in the consumer surplus of the oil, gas, coal, and electricity markets overstates the national change in social welfare. Most of this surplus is not a net gain to society as a whole, but only a transfer from producer surplus. Producer surplus occurs when producers receive more than the amount they need to recover their actual and opportunity costs and hence be willing to produce and sell the good. In other words, this surplus is a measure of their economic profit. In the case of the Five Year Program, the additional OCS production lowers the market price for oil and gas, thus increasing

consumer surplus. However, as prices fall, all producers receive a smaller price for every unit of production, thus lowering their producer surplus.

This Five Year Program analysis focuses on gains and losses within the U.S., so only the domestic portion of this lost producer surplus represents an offsetting loss of national welfare. To the extent that new OCS oil and gas would displace imports, all of the consumer surplus benefits which derive from the lower market price and are directly associated with this portion of domestic production represent a net consumer surplus benefit as well. Further, MarketSim computes and compiles the net consumer surplus associated with all of the non-U.S. supplied quantities of oil and gas so as to exclude these domestic producer surplus losses from the domestic consumer surplus gains attributed to the program.

To illustrate the consumer surplus calculations, the following example outlines how MarketSim calculates net domestic consumer surplus in one of the 15 sectors it models. The chart in Figure 2 shows the change in consumer surplus in the transportation sector for the amount of oil produced from the new CGOM leases under the program in 2020, outlined in red. The calculated consumer surplus has two pieces. The first piece is the benefits that derive from having a lower price being charged for every unit of consumption that would have occurred at the higher price. This piece is simply a transfer from producers to consumers. These are the pecuniary gains associated with consumer surplus. The second piece of consumer surplus is the welfare gain from the small amount of additional consumption that occurs as the result of the lower oil price. The rectangular portion of the red trapezoid is the pecuniary gains and the additional welfare gains are the triangular portion.

**Figure 2: Consumer Surplus from CGOM Oil Transport in 2020**



With the NSO option, the MarketSim base case oil price in 2020 is \$118.39. If the CGOM sales option is selected, the new equilibrium oil price falls to \$118.08. The quantity demanded in the transportation sector with the selection of the NSO and the original price of \$118.39/bbl is 14.516 million barrels per day, whereas with the CGOM sales, the quantity demanded increases by 7,000 barrels per day to 14.523 million barrels.<sup>27</sup> The first piece of consumer surplus is found by multiplying the price change of 31 cents ( $\$118.39 - \$118.08$ ) by the entire quantity that would have been consumed at the original price (14.516 million barrels per day) to calculate a total (undiscounted) pecuniary benefits of \$4.5 million per day transferred from producers to consumers.

Since the pecuniary gains are transferred from producers to consumers, only the consumer surplus gain on foreign production belongs in the domestic Net Benefit value. To exclude the producer surplus losses on domestic production from the pecuniary gains, MarketSim uses the percentage of U.S. oil consumption projected to be filled by foreign sources in 2020. Continuing the example for 2020, MarketSim with the new CGOM production under the program anticipates that 52% of U.S. oil consumption will be provided by non-U.S. sources, meaning that 7.55 million barrels per day ( $0.52 \times 14.516$ ) come from outside the U.S. and the remaining 6.97 million barrels per day come from domestic production. To calculate the net domestic benefit from the new CGOM production, MarketSim multiplies the equilibrium price change for that year only by

<sup>27</sup> The total increase in CGOM production in 2020 in all sectors is approximately 163,000 barrels per day.

foreign production resulting in a domestic pecuniary gain of \$2.34 million per day (7.55\*0.31).

The welfare gain or triangle portion of consumer surplus is a complete benefit to the U.S. The triangle piece of consumer surplus equals one-half the change in price (31 cents) times by the additional quantity consumed with CGOM (14.523-14.516 = 0.007), or \$1,085 [(0.31\*.007)/2]. In this example, the net domestic consumer surplus benefit is \$2.342 per day or \$854.5 million (about \$675 million present value in 2012) attributable to new production in 2020 in the CGOM resulting from the Proposed Final Program.

The net domestic consumer surplus measures from production due to the program, aggregated over all the program years and consumption sectors, are shown in Table 5 for each of the program areas at the three sets of stipulated resource price levels.

**Table 5: Net Domestic Consumer Surplus**

|                     | Net Domestic Consumer Surplus |           |            |
|---------------------|-------------------------------|-----------|------------|
|                     | \$ Billions*                  |           |            |
|                     | Low Price                     | Mid-Price | High Price |
| <b>Central GOM</b>  | 19.37                         | 35.14     | 44.52      |
| <b>Western GOM</b>  | 5.08                          | 8.32      | 10.28      |
| <b>Eastern GOM</b>  | **                            | 0.37      | 0.58       |
| <b>Chukchi Sea</b>  | 2.66                          | 7.54      | 25.00      |
| <b>Beaufort Sea</b> | 1.03                          | 1.51      | 5.54       |
| <b>Cook Inlet</b>   | 0.57                          | 0.59      | 1.39       |

All values are discounted at a real discount rate of 3 percent.

\* The low-price case represents a scenario under which inflation-adjusted prices are \$60 per barrel for oil and \$4.27 per mcf for natural gas throughout the life of the program. Prices for the mid-price case are \$110 per barrel and \$7.83 per mcf. Prices for the high-price case are \$160 per barrel and \$11.39 per mcf.

\*\* Given current information, no production is expected from the Eastern GOM Program Area at the low-price case, whether from one or two sales; therefore consumer surplus is assumed to be zero.

As we've discussed, consumer surplus is driven by resource price changes as a result of adding new OCS leasing. Since oil prices are determined by the world market, OCS leasing does not have a large impact on prices. In fact, the greatest oil price change in any one year is \$1.17<sup>28</sup> as a result of the new production. Even though this price change is small, to calculate the consumer surplus for the program, it is multiplied by every imported barrel domestically consumed (9.82 MMbbl/day)<sup>29</sup> which results in the large amounts of consumer surplus.<sup>30</sup>

Finally, it may appear at first glance that our inclusion of consumer surplus in the measure of net benefits results in an overestimation of program welfare to U.S. citizens,

28 In year 18 of the mid-price case of \$110/bbl, this represents only a 1% price drop from the baseline.

29 Calculated in year 18 of the mid-price case of \$110/bbl.

30 For more detail, see the Industrial Economics, Inc., 2012b, BOEM 2012-024.

by inadvertently including that part of consumer surplus which is associated with the export of refined petroleum products. But, that observation would be incorrect. The Net Benefit measures rely heavily for inputs on Energy Information Agency (EIA) data outputs and definitions, which are directly employed in MarketSim. In the EIA market accounts, and hence in these calculations, the demand for oil and gas for export (almost all of which is for refined products as opposed to crude oil) is not included on the U.S. market demand side, but instead is on the supply side. In that sense, market demand is purely domestic demand for oil and gas. Thus, as a result of the omission of exported oil refined products from domestic demand in both the EIA output tables and hence in the model calculations, the Net Benefits analysis properly reflects the consumer surplus only for U.S. citizens from production of OCS crude oil.

### **Net Benefits Summary for All Program Areas**

The sum of the NSV and the net domestic consumer surplus benefits constitutes the total net benefits associated with the program area resources projected to be leased, discovered, and produced in the Five Year Program. Figure 3 illustrates each step in this process using the mid-price case calculations for Central GOM program area in the same format as Figure 1 in the *Methodology* section.

**Figure 3: Net Benefits Analysis Result for Central GOM Mid-Price Case (\$ billions) \***

|                                                                                                        |   |                                                                                                                                                                                                                                                                                               |   |                                                     |
|--------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------|
| Anticipated Production<br><b>3.77 BBO</b><br><b>16.41 tcf</b><br>(Table 9)                             | x | Assumed Oil and Gas Price Levels<br><b>\$110/bbl and \$7.83/mcf</b> (Table 8)                                                                                                                                                                                                                 | = | Gross Revenue<br><b>275.66**</b>                    |
| Gross Revenue<br><b>275.66**</b>                                                                       | - | Private Costs of Program<br><b>122.07**</b>                                                                                                                                                                                                                                                   | = | Net Economic Value (NEV)<br><b>153.59</b> (Table 1) |
| NEV<br><b>153.59</b> (Table 1)                                                                         | - | Environmental and Social Costs of Program Proposal<br><b>5.94</b> (Table 4)<br><i>less</i><br>Environmental and Social Costs of Energy Substitutes (Selection of the No Sale Option)<br><b>17.43</b> (Table 4)<br><i>equals</i><br><b>Net Environmental and Social Costs -11.49</b> (Table 4) | = | Net Social Value (NSV)<br><b>165.08</b> (Table 6)   |
| NSV<br><b>165.08</b>                                                                                   | + | Consumer Surplus Benefits<br><i>less</i><br>Lost Domestic Producer Surplus Benefits<br><b>= 35.14</b>                                                                                                                                                                                         | = | Net Benefits<br><b>200.23</b>                       |
| *All values are discounted at a real discount rate of 3 percent.<br>**From internal model calculations |   |                                                                                                                                                                                                                                                                                               |   |                                                     |

In this case the external costs from the No Sale Option exceed those under the recommended option, so the net environmental and social effects add benefits equal to about 7 percent to the NEV of the proposed program. The estimated net domestic consumer surplus from the pecuniary effects of the program, mostly from lower gas prices, adds benefits equal to about 23 percent of that NEV.

Table 6 shows the estimates of these components of the Net Benefit analysis for all the available program areas in the Proposed Final Program options and the EIS alternatives for each of the three price cases.



**Table 6: Net Benefits**

|                     | Net Social Value |           |            | Net Domestic Consumer Surplus |           |            | Net Benefits |           |            |
|---------------------|------------------|-----------|------------|-------------------------------|-----------|------------|--------------|-----------|------------|
|                     | (\$ billions)*   |           |            |                               |           |            |              |           |            |
|                     | Low Price        | Mid-Price | High Price | Low Price                     | Mid-Price | High Price | Low Price    | Mid-Price | High Price |
| <b>Central GOM</b>  | 43.27            | 165.08    | 300.48     | 19.37                         | 35.14     | 44.52      | 62.64        | 200.23    | 344.99     |
| <b>Western GOM</b>  | 11.77            | 41.26     | 72.19      | 5.08                          | 8.32      | 10.28      | 16.83        | 49.59     | 82.47      |
| <b>Eastern GOM</b>  | **               | 2.35      | 5.42       | **                            | 0.37      | 0.58       | **           | 2.73      | 6.00       |
| <b>Chukchi Sea</b>  | 5.22             | 31.41     | 136.25     | 2.66                          | 7.54      | 25.00      | 7.88         | 38.95     | 161.26     |
| <b>Beaufort Sea</b> | 0.18             | 4.25      | 18.84      | 1.03                          | 1.51      | 5.54       | 1.20         | 5.75      | 24.38      |
| <b>Cook Inlet</b>   | 1.58             | 3.77      | 12.39      | 0.57                          | 0.59      | 1.39       | 2.15         | 4.37      | 13.78      |

All values are discounted at a real discount rate of 3 percent.

\* The low-price case represents a scenario under which inflation-adjusted prices are \$60 per barrel for oil and \$4.27 per mcf for natural gas throughout the life of the program. Prices for the mid-price case are \$110 per barrel and \$7.83 per mcf. Prices for the high-price case are \$160 per barrel and \$11.39 per mcf.

\*\* Given current information, no production is expected from the Eastern GOM Program Area at the low-price case, whether from one or two sales; therefore net benefits are assumed to be zero. If exploration occurs, net benefits could be either negative—if no production results—or positive—if successful exploration leads to production. The estimated value of Eastern GOM resources is highly sensitive to changes in information, so placing a second sale on the schedule would provide flexibility to adapt to such changes.

### ***Revisions for the Proposed Final Program Analysis***

Numerous changes were made to the Net Benefits analysis for the Proposed Final Program analysis. One change to the entire analysis was the change in discount rate from a nominal seven percent to a real three percent. Upon further consideration of OMB Circular A-4, BOEM determined that the three percent social discount rate was more applicable for our analyses than the seven percent private rate. This caused all the values in the Net Benefits analysis to increase as future values were not discounted as greatly as they were previously. To make cost assumptions consistent with the flat real price scenarios, the Proposed Final Program analysis eliminated the three percent inflation that was used in the Proposed Program and now assumes zero inflation.

There were also adjustments made to different pieces of the analysis. The most important of these changes are discussed below.

#### **Net Economic Value**

BOEM determined that an adjustment factor should be included to take into account foreign profits that would not be spent domestically. As described in the Net Economic Value Derived from a Program Area section, BOEM assumed that five percent of the NEV would flow outside the U.S. and thus deducted it from our analysis. See the latter part of the section entitled Net Economic Value Derived from a Program Area for the rationale behind this assumption.

### **Environmental and Social Costs**

The oil spill rates used in the environmental and social costs calculations from the OECM were changed to consider historical data from 1996-2010. This new study period includes recent trends and makes the Proposed Final Program analysis consistent with the Programmatic EIS.

The air emission factors were updated for the OECM. These new factors were based on a more in-depth analysis of the air quality data. In addition, the model now also calculates round-trip emissions for tankers carrying both imports and Alaskan oil to the continental U.S. The model also includes separate emissions factors to account for differences in impacts between platforms and caissons. Tables of the emissions factors are included in the OECM documentation (Industrial Economics, Inc. et al., 2012a).

### **Consumer Surplus**

The MarketSim model was adjusted to net out all consumer surplus that represents a transfer from domestic producer surplus for each of the modeled fuels. This is discussed in the section titled Netting out Domestic Producer Surplus.

The MarketSim documentation is being published along with this document. The documentation provides more technical information on the elasticities and how price changes, energy market substitutions, and reduced demand are calculated (Industrial Economics, Inc., 2012b).

### ***Unmonetized Impacts***

The Net Benefits analysis captures the important costs and benefits associated with new OCS leasing that can be reliably estimated. However, there are other potential impacts that cannot be monetized which are discussed below.

### **Greenhouse Gas Emissions**

The OECM monetizes air emissions factors for six different pollutants (NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, and VOCs), but it does not apply a monetary value on the damages of greenhouse gas (GHG) emissions. The model does calculate the level of emissions that would be emitted under both the program and the NSOs for carbon dioxide, methane, and nitrous oxide. Most of the GHG effect will occur with consumption rather than production of oil and gas which changes little between the program and NSO scenarios.

Moreover, because GHG are global pollutants, an estimate of discharges stemming from the NSO includes emissions from the production of oil and gas that is imported to the U.S. and from the round-trip tanker voyages that are necessary to transport the oil to the U.S. Table 7 shows the estimates of GHG emissions by program area for the mid-price case. As shown in the table, the emissions for carbon dioxide and nitrous oxide are greater under the NSOs than from the program. However, there is more methane from the program than the NSOs. Though these impacts are not monetized, they are not identical between having an OCS program and having the impacts of the NSOs.

**Table 7: Greenhouse Gas Emissions**

|                          | Program Emissions |                 |                  | NSO Emissions   |                 |                  | Difference      |                 |                  |
|--------------------------|-------------------|-----------------|------------------|-----------------|-----------------|------------------|-----------------|-----------------|------------------|
|                          | thousands of tons |                 |                  |                 |                 |                  |                 |                 |                  |
|                          | CO <sub>2</sub>   | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O |
| Central GOM              | 79,907            | 867             | 2.22             | 234,080         | 157             | 2.42             | -154,173        | 711             | -0.20            |
| Western GOM              | 21,410            | 285             | 0.53             | 54,164          | 36              | 0.56             | -32,755         | 249             | -0.02            |
| Eastern GOM<br>(2 Sales) | 615               | 9               | 0.02             | 2,939           | 2               | 0.03             | -2,324          | 7               | -0.01            |
| Chukchi Sea              | 4,324             | 28              | 0.11             | 57,760          | 40              | 0.62             | -53,436         | -12             | -0.51            |
| Beaufort Sea             | 1,485             | 11              | 0.03             | 11,570          | 8               | 0.12             | -10,086         | 3               | -0.09            |
| Cook Inlet               | 760               | 6               | 0.02             | 5,240           | 4               | 0.06             | -4,480          | 2               | -0.04            |

\* These values are the OECM results for the mid-price case with prices of \$110 per barrel and \$7.83 per mcf.

## Unmonetized Costs

### Passive Use Values

In general, the Net Benefits analysis includes cost estimates of many types of use values, but does not include some values that would be associated as nonuse or passive use values. Evidence of nonuse values can be found in the trade-offs people make to protect or enhance environmental resources that they do not use. Nonuse or passive use values exist under both the program and under the energy substitutes that would be necessary under the NSO.

Within the Net Benefits analysis, certain passive-use or nonuse values are not qualitatively captured. The various types of nonuse values are:

- Option value means that an individual’s current value includes the desire to preserve the opportunity to use a resource in the future.
- Bequest value refers to an individual’s value for having an environmental resource available for his or her children and grandchildren to experience. It is based on the desire to make a current sacrifice to raise the well-being of one’s descendants. Bequest value is not necessarily equivalent to the value of any information gained as a result of delaying leasing activities.
- Existence value means that an individual’s utility may be increased by the knowledge of the existence of an environmental resource, even though the individual has no current or potential direct use of the resource.

Altruistic value occurs out of one individual’s concern for another. A large body of literature discusses studies of these values. However, the extent to which these estimates are transferrable to the BOEM context is probably quite limited. The values were developed using stated preference techniques and the results from such analysis are often highly dependent on the resource and specific context (which would include resource conditions, possible improvements or degradation as a result of policy changes, payment vehicles, etc.). If one were interested in evaluating the extent to which households or individuals hold nonuse values (or a bequest value in particular) for OCS oil and gas

resources, original empirical research would need to be conducted because a benefits transfer approach would not be appropriate given the importance of the specific context for stated preference studies. Total economic value studies (nonuse values are part of total economic value) are time consuming and expensive to conduct. These types of studies are most appropriate to conduct in situations where the resources under consideration are unique, where a set of defined changes to the resource can be easily identified, and where the resource(s) are not typically bought and sold in markets. It is not clear this is the case for OCS resources. OCS oil and gas resources are not unique and they are readily bought and sold in markets.

More discussion on the ecological components not included in the Net Benefits analysis is in the section titled OECM Ecological Modeling.

### **Catastrophic Oil Spills**

Given the difficulties in determining expected costs of a catastrophic oil spill because of the very unlikely nature of an event, the estimated impacts are not included in the Net Benefits analysis. In order to provide some sense of the potential impacts that could be derived from a catastrophic spill, BOEM quantifies the risk and monetizes the costs below in the section titled Catastrophic Oil Spill Analysis.

### **Unmonetized Benefits**

The OECM does not include any values of certain benefits from OCS oil and gas activities because a credible assessment of a monetized impact cannot be made in the areas of geographic interest owing to a lack of available data. While an important component of the monetized benefits is the avoided environmental and social costs of production from the OCS, rather than from any of the NSOs, there may be additional environmental and social benefits stemming from oil and gas leasing activity that impact stakeholders. Several categories of these unmonetized benefits can be evaluated and are discussed qualitatively below.

### **Recreational Fishing and Diving**

Oil and gas platforms provide recreational and commercial fishing and diving boats with easily identifiable areas with which to navigate to in open waters. In the GOM, where the seafloor consists mostly of soft mud and silt, artificial reefs and platforms can provide additional hard-substrate areas for a variety of benthic species (Lindquist, Shaw, and Hernandez, 2005). These platform and artificial reefs can serve as fish hiding spots or as grounds for increased predation, support important nursery environments for certain types of fish, and may increase the abundance, density, and composition of fish species around platforms as compared to natural reef sites (Stanley and Wilson, 2000).

Gulf Coast states have recognized the potential importance of such aquatic structures to marine species and local activities. The artificial reef programs in these states, as part of the Rigs-to-Reefs (RTR) program, have worked to facilitate the permitting, navigational requirements, and liability transfer for decommissioned and reefed rigs in federal and state OCS waters. The reduction in pressure on natural surrounding reefs and the impact on local industries, and to a certain extent, the greater economy, illustrates the potential environmental and social benefits artificial reefs may provide. The leasing from this Five

Year Program is expected to increase the number of platforms in the GOM, providing increased gathering areas for commercial and recreational fishermen and steering reefing activities towards artificial reef locations that tend to decrease navigational and commercial fishing burdens while increasing the attractiveness of sites for recreational and commercial use.

### **Natural Oil Seepage**

Naturally occurring oil seeps are a significant source of hydrocarbon gas (methane) and liquid (oil and tar) leaking into the environment. Natural seeps are fed by pools of oil and natural gas that form under sedimentary rock layers of the Earth's crust. Oil and gas is pushed to the surface by pressure from the resulting rock layers and these seeps occur on land and in marine environments. Oil leaking from hydrocarbon seeps can be a large source of the total oil entering into the environment every year, and some of the greatest hydrocarbon marine seepage areas throughout the world are located off the coasts of the United States, most notably in the Pacific (Santa Barbara Channel) and the Gulf of Mexico (Macdonald, Ackleson, Duckworth, and Brooks, 1993).

Man-made processes involved with oil and gas exploration and development may potentially reduce the amount of hydrocarbons naturally seeping into the environment by reducing the reservoir pressure beneath natural seeps (Homafius, Quigley, and Luyendyk, 1999). The effects of such a reduction in pressure from reservoir development and ultimately natural seepage could have significant positive effects on water quality which are likely large enough to offset any lost ecosystem value of natural seeps.

### **National Energy Security**

Over the last fifty years, U.S. oil and gas demand, supply, and prices have increasingly shaped U.S. national energy policy concerns and national security issues. As crude oil is used as a source of energy for many goods, services, and economic activities throughout the U.S. economy, supply disruptions and increases in energy prices are felt by nearly all U.S. consumers.

Concerns over energy security stem from the importance crude oil and more recently, natural gas, have on the functionality of U.S. economic markets and the energy supply disruptions that can frequently occur due to the characteristics and behavior of the global crude oil supply market. The externalities associated with oil supply disruptions – economic losses in GDP and economic activity – have been shown to be greater for imported oil than domestically produced oil. Increased domestic oil production can boost the share of stable supplies in the world market while increased oil imports, often from unstable regions, can have the opposite effect (Brown and Huntington, 2010). Increased oil and gas production from the federal OCS can help mitigate the impact of supply disruptions and spikes in oil prices on the U.S. economy, mitigating economic downturns as well as the amount of U.S. dollars sent overseas from purchases of crude oil imports.

### **U.S. Trade Deficit**

In recent years, a growing percentage of the U.S. trade deficit has been related to energy expenditures. As crude oil is an essential part of many goods, services, and economic

activities, sustained high energy prices can alter the composition of the U.S. trade deficit (Jackson, 2011). Increases in energy expenditures represent an increase in overseas payments to foreign producers for imported oil and a transfer of wealth from the U.S. to oil producers. Large expenditures on crude oil imports in the face of recent high energy prices can stifle economic activity and slow down domestic economic growth, as well as impact the rate of U.S. inflation and reduce the real discretionary incomes of U.S. consumers (Jackson, 2011). Domestic production of oil from the OCS reduces the amount of oil that must be imported from abroad, and because oil demand tends to be inelastic thereby curtails the effect high energy expenditures may have on the U.S trade deficit.

### ***Assumptions and Input Data***

Considerable uncertainty surrounds future production from the OCS and resulting impacts on the economy. A broad range of future conditions can result from a lease sale schedule. To be useful an analysis must be both specific and realistic, which is difficult in the face of uncertainty. Price expectations play an especially important role in estimating the value of the proposed program. For instance, the industry will be much more likely to develop hydrocarbon resources in frontier areas if it expects future oil prices to remain high. Despite a broad range of future conditions that can result from activities associated with the program, BOEM strives for consistency by using standard input assumptions in calculating each component of the economic analysis. The analysis in the Programmatic EIS that accompanies the program decision document uses the same set of assumptions as the Net Benefits analysis. Six subsets make up the full assumption set for the economic analysis.

For the proposed program analysis, the assumption set is:

- oil and natural gas prices
- finding and extraction cost assumptions
- the discount rate
- anticipated production
- production profiles
- exploration and development scenarios

### **Oil and Natural Gas Price-Level Assumptions**

Leasing from the 2012-2017 program enables new exploration, development, and production activity for a period of 40 to 50 years. Although oil prices can experience a high degree of volatility during this period, BOEM assumes three level-price scenarios in which the inflation-adjusted, or “real,” prices for oil and gas remain constant to allow decision makers to more easily envision and compare the range of possible production, benefits, and costs if prices rise or fall. Use of variable prices in the analysis would make it difficult for the decision makers to separate out the impacts of forecast price changes from the underlying differences in program areas. For this reason, the proposed program analysis includes resource and net benefit estimates for each of the three level price scenarios shown in Table 8.

**Table 8: Proposed Program Price Scenarios**

|            | <b>Oil (per bbl)</b> | <b>Gas (per mcf)</b> |
|------------|----------------------|----------------------|
| Low Price  | \$60                 | \$4.27               |
| Mid-Price  | \$110                | \$7.83               |
| High Price | \$160                | \$11.39              |

### **Cost Assumptions**

If resource prices increase significantly, their impact on oil and gas activities are not immediately felt due to long lead times needed to explore for resources and new infrastructure required to support higher activity levels. In addition, large increases in resource prices create additional competition for existing drilling rigs and investment dollars from other parts of the world which raises the cost of exploration, development, and production which in turn dampens the production boost from increased resource prices. Based on a historical analysis, BOEM assumes a cost-price elasticity of 0.5 to calculate the NEV for each planning area price scenario. In other words, BOEM assumes the costs of oil and gas exploration and development change in half the proportion as the change in oil prices across the scenarios (e.g., \$60/bbl oil prices are 45% lower than \$110/bbl oil prices, so costs that are 22.5% lower in the \$60/bbl scenario than the costs used in the \$110/bbl oil scenario are used).

### **Discount Rate**

Based on guidance from OMB Circular A-4, a real discount rate of three percent is used for determining the present value of all Net Benefit calculations. A discount rate of three percent is considered the appropriate rate by OMB for the “social rate of time preference.” This simply means the rate at which "society" discounts future consumption flows to their present value. All values are discounted back to 2012 dollars. In the case of determining applicable economically recoverable resource amounts, various private rates of return were employed consistent with the level of risk in each program area to estimate the amount of oil and gas resources that would be profitable for the private sector to lease and explore.

### **Anticipated Production**

Anticipated production is the estimated quantity of oil and natural gas expected to be produced as a result of the lease sales included in the proposed program. The Net Benefit analysis as summarized in the proposed program document at part IV.C, *Comparative Analysis of OCS Planning Areas*, uses anticipated production as a key empirical input to calculate the NEV of future production streams.

Undiscovered economically recoverable resource (UERR) estimates from the 2011 National Assessment form the basis for anticipated proposed program OCS production. The Five Year Program’s incomplete exploration activity over entire planning areas is insufficient to discover the entire resource endowment. The National Assessment models the undiscovered, technically and economically recoverable oil and natural gas resources located outside of known OCS oil and gas fields. The assessment considers recent

geophysical, geological, technological, and economic information and uses a play analysis approach to resource appraisal.<sup>31</sup>

In mature areas like much of the GOM, BOEM bases an estimate of the anticipated production share of the UERR under the program on sale specific production trends and recent leasing and drilling activity. BOEM also considers BOEM's internal 10-year production forecast which includes reserves, announced finds and expected production from undiscovered resources. The GOM has experienced a downturn in leasing and drilling activity over the past five-plus years, especially in the Western GOM. This decline in activity led us to adjust downward the anticipated GOM production from this proposed program compared to the 2007-2012 program. BOEM expects this program to yield anticipated production of about fourteen percent of the UERR in the Central GOM and about seven percent in the Western GOM.

In frontier areas like the Alaska Arctic, BOEM bases anticipated production on judgments regarding the level of industry leasing and exploration activities that could lead to the discovery and development of new commercial fields consistent with the corresponding price assumptions. The estimates shown in Table 9 for Alaska Arctic areas are conditional on the assumption that initial development occurs on current leases and future OCS projects are produced through this infrastructure. With that proviso, BOEM expects this program to yield anticipated production of about eight percent of the UERR in the Chukchi Sea and about four percent in the Beaufort Sea.

Table 9 shows anticipated production estimates for program areas included in the Proposed Final Program decision document.

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31 See <http://www.boem.gov/Oil-and-Gas-Energy-Program/Resource-Evaluation/Resource-Assessment/Methodology.aspx> for a complete description of the national resource assessment methodology.



**Table 9: Proposed Program Production Estimates\***

|                      | Oil (billion barrels) |           |            | Gas (trillion cubic feet) |           |            | BBOE      |           |            |
|----------------------|-----------------------|-----------|------------|---------------------------|-----------|------------|-----------|-----------|------------|
|                      | Low Price             | Mid-Price | High Price | Low Price                 | Mid-Price | High Price | Low Price | Mid-Price | High Price |
| <b>Central GOM</b>   | 2.24                  | 3.77      | 4.34       | 9.47                      | 16.41     | 19.07      | 3.92      | 6.69      | 7.73       |
| <b>Western GOM</b>   | 0.56                  | 0.86      | 0.97       | 2.63                      | 4.07      | 4.59       | 1.03      | 1.58      | 1.79       |
| <b>Eastern GOM**</b> | 0.00                  | 0.05      | 0.07       | 0.00                      | 0.11      | 0.16       | 0.00      | 0.07      | 0.10       |
| <b>Chukchi Sea</b>   | 0.50                  | 1.00      | 2.15       | 0.00                      | 2.50      | 8.00       | 0.50      | 1.44      | 3.57       |
| <b>Beaufort Sea</b>  | 0.20                  | 0.20      | 0.40       | 0.00                      | 0.50      | 2.20       | 0.20      | 0.29      | 0.79       |
| <b>Cook Inlet</b>    | 0.10                  | 0.10      | 0.20       | 0.00                      | 0.04      | 0.68       | 0.10      | 0.11      | 0.32       |

\* After publication of the January 2009 Draft Proposed Program decision document, BOEM completed a subsequent resource assessment (2011 assessment) resulting in revised estimates of unleased, undiscovered economically recoverable resources. The new estimates are reflected in the anticipated production numbers in this table. The low-price case represents a scenario under which inflation-adjusted prices are \$60 per barrel for oil and \$4.27 per mcf for natural gas throughout the life of the program. Prices for the mid-price case are \$110 per barrel and \$7.83 per mcf. Prices for the high-price case are \$160 per barrel and \$11.39 per mcf.

\*\* Current information does not indicate that the number of sales would affect anticipated production for the Eastern GOM. The two-sale option allows the Secretary to consider any new information that might arise from exploration on existing leases subsequent to his decision on the program, when deciding whether to hold a second sale.

## Production Profiles

Production profiles or schedules show the distribution of anticipated production by year over the life of program related activity in each program area. Generally, production begins earlier in established, shallower, near-shore areas in the GOM. Deepwater and frontier areas production schedules begin later and the activity tends to stretch over longer periods. BOEM uses time periods of either 40 or 50-years for each lease sale to model the E&D activity. While production related to leasing in the 2012-2017 program may extend beyond the activity period with secondary recovery techniques, new technology, or growth in reserve/resource estimates, the models provide results for 40 years in the GOM and 50 years in Alaska following a lease sale in this proposed program.

## Exploration and Development Scenarios

Associated with various production levels in each program area are the activities required for exploration and development of OCS oil and gas resources. The list of these activities and facilities is called an exploration and development (E&D) scenario. These factors of production and activities yield the hydrocarbon resources and cause environmental and social impacts. The timing of production and revenue streams as well as social and environmental cost factors depend on the specified schedule of the various E&D activities. Table 10 shows the summary level E&D scenario for the Mid-price case attributable to each program area. The E&D scenarios for the Low- and High-price cases include corresponding though not linear well, facility, and pipeline activity levels.

**Table 10: Proposed Program E&D Scenario  
Mid-Price Case \$110/bbl, \$7.83/Mcf**

|                                            | Gulf of Mexico |         |         | Alaska     |              |             |
|--------------------------------------------|----------------|---------|---------|------------|--------------|-------------|
|                                            | Central        | Western | Eastern | Cook Inlet | Beaufort Sea | Chukchi Sea |
| <b>No. of sales</b>                        | 5              | 5       | 2       | 1          | 1            | 1           |
| <b>Anticipated Production (BBOE)</b>       | 6.69           | 1.58    | 0.07    | 0.11       | 0.29         | 1.44        |
| <b>Years of activity</b>                   | 40             | 40      | 40      | 40         | 50           | 50          |
| <b>Exploration &amp; Delineation Wells</b> | 1,388          | 380     | 12      | 4          | 6            | 12          |
| <b>Development &amp; Production Wells</b>  | 1,725          | 476     | 10      | 42         | 40           | 100         |
| <b>Subsea</b>                              | 9              | 1       | 1       | 0          | 10           | 36          |
| <b>Platforms</b>                           | 274            | 86      | 0       | 1          | 1            | 2           |
| <b>Pipeline miles</b>                      | 3,979          | 1,149   | 37      | 50         | 60           | 100         |

## Catastrophic Oil Spill Analysis

In the aftermath of the *Deepwater Horizon* event in April 2010, BOEM is making consideration of the potential impact of low-probability/high-consequence oil spills more explicit in its assessments of future exploration, development, and production activities on the OCS. A decision as to whether or not to proceed with proposed lease sales necessarily carries with it the risk, however slight, of a catastrophic oil spill, regardless of the decision. This document primarily addresses environmental and social resources and activities that could be affected by a catastrophic oil spill resulting from OCS oil and gas activities anticipated from proposed lease sales. However, a decision not to lease also carries with it the risk of a catastrophic oil spill resulting from tankers carrying imported oil to replace OCS production if the NSO is selected for one or more program areas.

The potential costs to society in quantitative or monetary terms are highly dependent upon the circumstances of the event and its aftermath. The wide and unpredictable nature of factors that alone or in combination can influence a catastrophic oil spill's impact include, but are not limited to, human response, spill location, reservoir size and complexity, response and containment capabilities, meteorological conditions, and the type of oil spilled. This makes determining the severity of a large oil spill's impact and makes the quantification of costs far less reliable than other measures developed for the Net Benefits analysis. Nevertheless, BOEM estimates the social and environmental costs of the EIS catastrophic spill sizes and presents them separately from the results of the Net Benefits analysis. The assumptions reflect an unpropitious scenario with regard to location and season when the social and environmental impacts are likely to be higher.

A "catastrophic" spill is not expected, and would be considered well outside the normal range of probability despite the inherent risks of oil production-related activities expected from the Five Year Program. Recently implemented safeguards including additional subsea BOP testing, required second downhole mechanical barriers, well containment systems and additional regulatory oversight make such an event much less likely. Given the range of variables that can affect the severity of a catastrophic oil spill, the same initial event could cause very different impact trajectories, making it difficult to predict

what the consequences of future events would be other than to say they *could be* very large in human, economic, and environmental terms. The potential for “catastrophe” is not solely a function of the quantity of oil released, as the uncontrolled release of a certain size at a particular location even within the same program area and at a particular time of year could have more significant economic or environmental effects than a release of considerably more barrels under different circumstances relating to precise location and season (Industrial Economics, Inc., 2012d).

### ***Approach for Quantifying the Possible Effects of a Catastrophic Spill***

This analysis identifies and estimates the environmental and social costs should there be a potentially catastrophic oil spill in any of the BOEM planning areas. This section supplements the Section 18 Net Benefits analysis found earlier in this document and in part IV of Proposed Final Program decision document where the costs of expected smaller sized oil spills are considered. Additional analysis related to an inventory of resources that could potentially be affected by a catastrophic discharge event can be found in the Programmatic EIS (U.S. Department of the Interior/BOEM, 2012a) and the supporting document *Inventory of Environmental and Social Resource Categories Along the U.S. Coast* (Industrial Economics, Inc., 2012d).

For purposes of this analysis, a catastrophic OCS event is defined as any high-volume, long-duration oil spill from a well blow-out, regardless of its cause (e.g., a hurricane, human error, terrorism). In this analysis, to capture some of the worst possible effects, a catastrophic spill is placed close to vulnerable assets at a point in time when weather and other factors inhibit prompt containment and cleanup efforts. The National Oil and Hazardous Substances Pollution Contingency Plan further defines such a catastrophic event as a “spill of national significance,” or one that “due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge” (40 CFR 300, Appendix E) (Industrial Economics, Inc., 2012d).

This assessment of the potential costs of a catastrophic oil spill of national significance does not mean that a catastrophic event can be pinned down to an expected cost measure comparable to other values estimated for OCS activity. With a few OCS catastrophic oil spill data points, statistically predicting a catastrophic blowout event that produces an oil spill consistent with the programmatic analysis for the EIS and data from both U.S. OCS and international offshore drilling history is beset with unknowns. An effort to calculate the frequency of a catastrophic oil spill is described in the section Detailed Frequency Calculations and discussed in the section Statistical Frequency of a Catastrophic Oil Spill. While the risk is not zero, a catastrophic spill is anticipated neither from this Five Year Program nor from the energy substitutes the market would supply if the NSO were selected in any or all program areas. Consistent with Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* BOEM uses “(2.iv) the best available science and knowledge to inform decisions affecting the ocean, our coasts, and

the Great Lakes . . .” This analysis attempts to estimate the costs of a hypothetical catastrophic spill in each of the Five Year Program areas.

### **OCS Catastrophic Oil Spill Sizes**

For consideration of potential environmental and social costs that might result from catastrophic events, BOEM adopts the hypothetical catastrophic oil spill size specifications, by program area, used for the Programmatic EIS (U.S. Department of the Interior/BOEM, 2012a). The catastrophic spill analysis estimates the social and environmental costs for both a low and high volume catastrophic spill occurring in a vulnerable location and season for each program area. The defined spill sizes, duration, and important factors are shown in Table 11.

**Table 11: Catastrophic Oil Spill Size Specifications<sup>32</sup>**

From the Five Year Programmatic DEIS

(U.S. Department of the Interior/BOEM, 2012a)<sup>33</sup>

(GOM Program Areas split between shallow and deep areas)<sup>34</sup>

| Program Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Volume (million bbl) | Duration (days) | Factors Affecting Duration                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|------------------------------------------------------------------------------------|
| Central and Western Gulf of Mexico, (shallow) <sup>35</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.9–3.0              | 30–90           | Water depth                                                                        |
| Central, Western, Eastern Gulf of Mexico (deep) <sup>36</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.7–7.2              | 90–120          | Water depth                                                                        |
| Chukchi Sea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.4–2.2              | 40–75           | Timing relative to ice-free season and/or availability of rig to drill relief well |
| Beaufort Sea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.7–3.9              | 60–300          |                                                                                    |
| Cook Inlet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.075–0.125          | 50–80           | Availability of rig to drill relief well                                           |
| <p>The Gulf of Mexico OCS region has specified the discharge rate, volume of a spill, and the extent and duration for a catastrophic spill event for both shallow and deep water (in part) based on information gathered and estimates developed for the Ixtoc (1979) and the <i>Deepwater Horizon</i> (2010) events. The Alaska OCS region has developed a catastrophic oil spill scenario based on a reasonable, maximum flow rate for each OCS program area, taking into consideration existing geologic conditions and information from well logs. The number of days until a hypothetical blowout and resulting oil spill could be contained was also specified. These are discharge volumes and spill duration do not account for decreases in volume from containment or response operations (U.S. Department of the Interior/BOEM, 2012a).</p> |                      |                 |                                                                                    |

32 The catastrophic oil spill parameters developed in the Programmatic EIS are intended to provide a scenario for a low-probability event with the potential for catastrophic consequences (U.S. Department of the Interior/BOEM, 2012a). Past oil spills that may be relevant include the non-OCS program related Exxon Valdez oil spill of 262,000 bbl in Prince William Sound of south central Alaska and the Ixtoc oil spill of 3,500,000 bbl in Mexican waters in western GOM as well as the OCS *Deepwater Horizon* event of 4,900,000 bbl in the northern GOM (McNutt et al., 2011).

33 Modified Table 4.4.2-2: Catastrophic Discharge Event Assumptions (U.S. Department of the Interior/BOEM, 2012a)

34 For consistency with the E&D scenario data, this analysis defines deepwater for the GOM as greater than 200 meters (654 feet). The potentially available Eastern GOM area is entirely in the deepwater. Prospective Alaska program area acreage is entirely in shallow water depths.

35 For this analysis, an uncontrolled flow rate of 30,000 barrels per day is specified for a catastrophic oil spill from a blowout in shallow water. This rate is based upon the results of well tests in shallow water and the maximum flow rate from the 1979 Ixtoc blowout and oil spill, which occurred in shallow water. In addition to the spill rate shown above, it is assumed that any remaining diesel fuel from a sunken drilling rig would also leak (U.S. Department of the Interior/BOEMRE, 2011, Section 3.1.3.1).

36 For the purposes of this analysis, an uncontrolled flow rate of 30,000-60,000 barrels per day is specified for a catastrophic blowout and oil spill in deep water. This flow rate is based on well test results, and the maximum expected flow rate of the 2010 *Deepwater Horizon* event, which occurred in deep water. In addition to the spill rate shown above, deepwater drilling rigs hold a large amount of diesel fuel (10,000-20,000 barrels). Therefore, it is assumed that any remaining diesel fuel from a sunken drilling rig would also leak and add to the spill (U.S. Department of the Interior/BOEMRE, 2011, Section 3.1.3.2).

## Statistical Frequency of a Catastrophic Oil Spill

In order to calculate the *risked* social and environmental costs from a catastrophic spill that could, but is not expected to occur in this program, the BOEM developed a frequency estimate based on historical analysis of the likelihood of a well blowout that would result in an oil spill of a catastrophic size. The historical statistical frequency exceedance value used in this analysis is likely significantly higher than the actual future frequency due to the proactive actions of the government and industry to reduce the chance of another blowout and catastrophic oil spill. These risk reduction measures are discussed below in the section entitled Risk Reduction Efforts. However, absent data regarding the frequency of catastrophic oil spills under the new regulatory regime, BOEM uses historical exceedance frequency values derived from U.S. OCS drilling and blowout data from 1964-2010.<sup>37</sup> Even using all available historical data in the data set, there are still problems with a small sample size based on the limited number of blowouts and even smaller number of blowouts leading to oil spills. From 1964-2010 over 48,000 wells were drilled with only 283 loss of well control instances.<sup>38</sup> Of the loss of well control instances, only 61 resulted in an oil spill. Almost all oil spills resulting from loss of well control instances were very small. Including the *Deepwater Horizon* event, the median spill size of these 61 events is only two barrels. The frequency used in each of the program areas for both a high and low volume spill is given in Table 12.

Using the historical data, the frequency estimates are developed for the risk that there will be a loss of well control event accompanied by a spill of a certain size category. The larger the size of a spill, the smaller is the frequency of a loss of well control event producing a spill of that size or greater. Information on how these frequencies were developed is given in the section titled Detailed Frequency Calculations.

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<sup>37</sup> Despite changes in technology and the move into deeper water, rate of loss of well control incidents has remained fairly constant over this period, making it appropriate for our analysis. One likely reason for this is that as drilling challenges increase, companies develop corresponding technology to address well control and other issues.

<sup>38</sup> As defined in BSEE regulations for incident report, Loss of Well Control means:

- Uncontrolled flow of formation or other fluids. The flow may be to an exposed formation (an underground blowout) or at the surface (a surface blowout);
- Flow through a diverter;
- Uncontrolled flow resulting from a failure of surface equipment or procedures.

See <http://www.boemre.gov/incidents/blowouts.htm>

**Table 12: Estimated Catastrophic Oil Spill Frequency**

|                        |                           | Approximate Frequency |                      | Approximate Frequency<br>1 in X wells |                      |
|------------------------|---------------------------|-----------------------|----------------------|---------------------------------------|----------------------|
|                        |                           | Low Volume<br>Spill   | High Volume<br>Spill | Low Volume<br>Spill                   | High Volume<br>Spill |
| <b>Central<br/>GOM</b> | <b>Shallow (&lt;200m)</b> | 0.000033              | 0.000024             | 31,000                                | 41,000               |
|                        | <b>Deep</b>               | 0.000025              | 0.000020             | 40,000                                | 50,000               |
| <b>Western<br/>GOM</b> | <b>Shallow (&lt;200m)</b> | 0.000033              | 0.000024             | 31,000                                | 41,000               |
|                        | <b>Deep</b>               | 0.000025              | 0.000020             | 40,000                                | 50,000               |
| <b>Eastern GOM</b>     |                           | 0.000025              | 0.000020             | 40,000                                | 50,000               |
| <b>Chukchi Sea</b>     |                           | 0.000029              | 0.000026             | 34,000                                | 38,000               |
| <b>Beaufort Sea</b>    |                           | 0.000028              | 0.000023             | 36,000                                | 43,000               |
| <b>Cook Inlet</b>      |                           | 0.000059              | 0.000052             | 17,000                                | 19,000               |

\*The approximate frequency estimate is based on an exceedance value. The frequency of 1 in X wells is the frequency of having a loss of well control incident and an oil spill of the catastrophic volumes defined in OCS Catastrophic Event Spill Sizes or greater.

No single type of accident automatically results in a multi-million-barrel release of oil. Greater volumes result only from a greater number of failures in redundant systems and other safeguards and from delays in stopping the flow of oil. Because each safeguard and response mechanism has its own probability of success, the cumulative probability of failure is lower for larger volumes (just as the probability of rolling a die and getting the same number 10 times in a row is much less likely than getting the same number only the first four times the die is rolled). Therefore, the “must exceed” risked cost (estimated cost times estimated probability) is greater for the lower-probability high-volume spills than for the low-volume spills.

## **Estimated Program Area Results**

The calculated statistical frequency of a catastrophic oil spill can be used in conjunction with program area specific costs of a spill to determine the impact of a catastrophic spill. The environmental and social costs considered in this analysis are described in detail by region in the section below entitled Detailed Cost Calculations. There the seven cost categories considered: natural resource damages, subsistence harvest, recreation impacts, commercial fishing, oil and gas production, the value of life and non-fatal injury, and oil spill containment and clean-up. Using the costs described later and the statistical frequency of a catastrophic spill, the potential effects of a catastrophic oil spill are summarized in the following sections. BOEM presents three separate ways to consider the costs of a catastrophic spill: conditional costs, risked costs, and break-even costs.

### **Conditional Costs**

The conditional costs of a catastrophic oil spill are simply the estimated costs should the spill occur. Table 13 shows the estimated spill costs of a catastrophic spill for each program area. While a catastrophic oil spill is not expected in this program, if a spill were to occur, Table 13 provides an estimate of what these costs might be. However, as discussed earlier, there are many factors that influence the effects of a catastrophic oil

spill. These conditional costs vary with a program area based solely on the size of the spill, but in practice they can vary as well by specific location of the spill, season of the year, wind conditions, etc. These estimates were made using assumptions that would result in a more severe outcome than can be expected to happen at random. The components of the cost estimates for each of the program areas are discussed in the section entitled Detailed Cost Calculations.

**Table 13: Conditional Catastrophic Spill Costs**

|                     |                           | <b>Conditional Undiscounted Spill Costs</b><br>\$ billions |                          |
|---------------------|---------------------------|------------------------------------------------------------|--------------------------|
|                     |                           | <b>Low Volume Spill</b>                                    | <b>High Volume Spill</b> |
| <b>Central GOM</b>  | <b>Shallow (&lt;200m)</b> | 3.52                                                       | 11.08                    |
|                     | <b>Deep</b>               | 10.00                                                      | 26.19                    |
| <b>Western GOM</b>  | <b>Shallow (&lt;200m)</b> | 3.52                                                       | 11.08                    |
|                     | <b>Deep</b>               | 10.00                                                      | 26.19                    |
| <b>Eastern GOM</b>  |                           | 10.00                                                      | 26.19                    |
| <b>Chukchi Sea</b>  |                           | 10.07                                                      | 15.75                    |
| <b>Beaufort Sea</b> |                           | 12.16                                                      | 27.77                    |
| <b>Cook Inlet</b>   |                           | 1.59                                                       | 2.55                     |

While Table 13 shows the conditional costs of a catastrophic oil spill, these values are not comparable to the results in the Net Benefits analysis. The Net Benefits analysis shows the discounted value of benefits expected from each program area. To be consistent with the Net Benefits analysis, the conditional spill costs should be discounted over the 40-50 year life of the program. Even discounted, conditional spill costs are not comparable since they do not represent a risked value. To discount the conditional costs, BOEM distributed the conditional cost of a spill over time based on the number of wells drilled in each program area in each year to approximate the concentration of the risk of a spill.<sup>39</sup> The results are then discounted back to 2012 at three percent and summed. These results are shown in Table 14.

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<sup>39</sup> Using the timing of all wells drilled in the mid-price E&D scenario.



**Table 14: Discounted Conditional Catastrophic Spill Costs**

|                     |                           | <b>Conditional Discounted Spill Costs</b><br>\$ billions |                          |
|---------------------|---------------------------|----------------------------------------------------------|--------------------------|
|                     |                           | <b>Low Volume Spill</b>                                  | <b>High Volume Spill</b> |
| <b>Central GOM</b>  | <b>Shallow (&lt;200m)</b> | 2.43                                                     | 7.65                     |
|                     | <b>Deep</b>               | 6.25                                                     | 16.38                    |
| <b>Western GOM</b>  | <b>Shallow (&lt;200m)</b> | 2.44                                                     | 7.67                     |
|                     | <b>Deep</b>               | 6.53                                                     | 17.11                    |
| <b>Eastern GOM</b>  |                           | 6.77                                                     | 17.73                    |
| <b>Chukchi Sea</b>  |                           | 6.15                                                     | 9.62                     |
| <b>Beaufort Sea</b> |                           | 7.62                                                     | 17.41                    |
| <b>Cook Inlet</b>   |                           | 0.93                                                     | 1.50                     |

\*All values are discounted at a real discount rate of 3 percent.

### Risked Costs

While the conditional costs show valuable information on the impacts if a catastrophic spill did happen, a catastrophic spill in any of the program areas from this Five Year Program is highly unlikely. To take into consideration the chance of a catastrophic spill in making the cost estimates, BOEM uses the statistical frequencies of a catastrophic spill per well drilled from Table 12 and multiplies them by the number of wells expected to be drilled in each year, as given in the applicable E&D scenarios.<sup>40</sup> The resulting figures represent the expected number of catastrophic spills in a given year in each program area. This number is much less than one even if summed over all years and all program area scenarios. The expected number of catastrophic spills is then multiplied by the cost of a catastrophic spill.<sup>41</sup> These risked, annual costs results are discounted back to 2012 at three percent and summed to obtain the risked present value catastrophic spill costs. The magnitudes of these discounted and risked spill costs are shown in Table 15.

**Table 15: Estimated Risked Catastrophic Spill Costs**

|                     |                           | <b>Risked Spill Costs</b><br>\$ billions |                          |
|---------------------|---------------------------|------------------------------------------|--------------------------|
|                     |                           | <b>Low Volume Spill</b>                  | <b>High Volume Spill</b> |
| <b>Central GOM</b>  | <b>Shallow (&lt;200m)</b> | 0.12                                     | 0.28                     |
|                     | <b>Deep</b>               | 0.22                                     | 0.46                     |
| <b>Western GOM</b>  | <b>Shallow (&lt;200m)</b> | 0.04                                     | 0.09                     |
|                     | <b>Deep</b>               | 0.06                                     | 0.12                     |
| <b>Eastern GOM</b>  |                           | 0.00                                     | 0.01                     |
| <b>Chukchi Sea</b>  |                           | 0.03                                     | 0.04                     |
| <b>Beaufort Sea</b> |                           | 0.01                                     | 0.02                     |
| <b>Cook Inlet</b>   |                           | 0.00                                     | 0.00                     |

\*All values are discounted at a real discount rate of 3 percent.

40 Using all wells drilled in the mid-price E&D scenario.

41 Essentially calculating the statistical “expected value” of a catastrophic oil spill.

## Break-Even Analysis

There is much uncertainty surrounding both the probability of a catastrophic oil spill and the costs associated with one. Rather than looking at the costs of a catastrophic spill with only one set of assumptions on costs and on probability, its impacts can also be viewed from a “break-even” perspective. The break-even analysis shows the combination of oil spill probabilities and costs from a catastrophic oil spill at which the risked costs would cancel out the net benefits of the program.

Table 16 shows what the probability would need to be under both the low and high volume catastrophic spill scenarios, given the costs shown in Table 13, to cancel out the net benefits from the program. For example, as shown in Table 16, the probability of a catastrophic spill in the shallow water CGOM would have to be 1 in 100 wells drilled in order for the net benefits of the program to be erased by the risked cost of a catastrophic oil spill. The conservatively estimated frequency of a spill in the CGOM shallow water is 1 in approximately 30,000.

**Table 16: Break Even Analysis on Spill Risk**

|                     |                           | Approximate Probability must exceed 1 in X for risked costs to exceed Net Benefits | Approximate Probability must exceed 1 in X for risked costs to exceed Net Benefits |
|---------------------|---------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                     |                           | Low Volume Spill                                                                   | High Volume Spill                                                                  |
| <b>Central GOM</b>  | <b>Shallow (&lt;200m)</b> | 100                                                                                | 310                                                                                |
|                     | <b>Deep</b>               | 60                                                                                 | 140                                                                                |
| <b>Western GOM</b>  | <b>Shallow (&lt;200m)</b> | 100                                                                                | 320                                                                                |
|                     | <b>Deep</b>               | 60                                                                                 | 150                                                                                |
| <b>Eastern GOM</b>  |                           | 50                                                                                 | 130                                                                                |
| <b>Chukchi Sea</b>  |                           | 20                                                                                 | 40                                                                                 |
| <b>Beaufort Sea</b> |                           | 70                                                                                 | 160                                                                                |
| <b>Cook Inlet</b>   |                           | 10                                                                                 | 20                                                                                 |

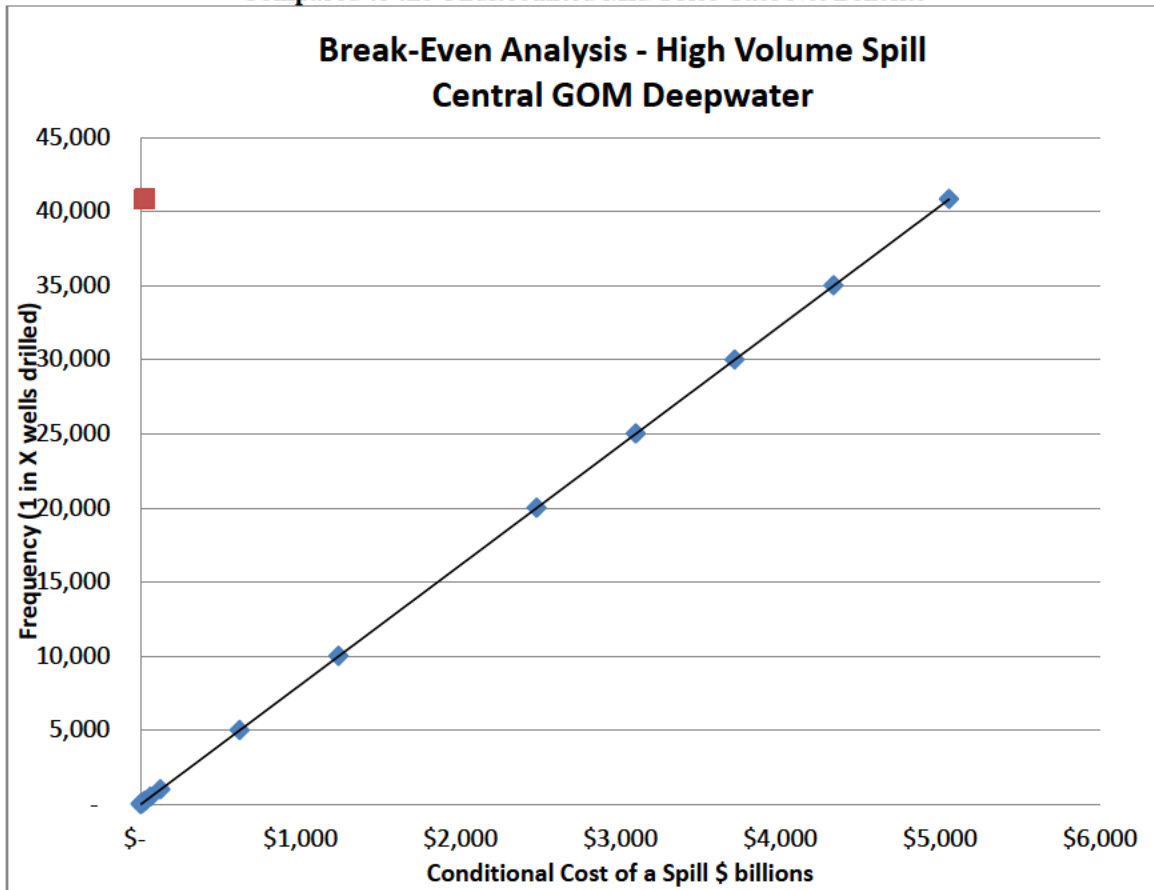
An alternate way to conduct the break-even analysis is to break-even given the calculated frequency of a spill, but varying spill costs. These results are shown in Table 17. As shown in the table, given a frequency of a catastrophic spill of a little over 1 in 30,000 wells drilled, the cost of a catastrophic spill in the CGOM shallow water would have to be over \$1 trillion in order for the risked value of a spill to erase the net benefits of the area. BOEM’s estimate of a catastrophic spill in shallow water CGOM is approximately \$3.5 billion (as shown in Table 13).

**Table 17: Break Even Analysis on Spill Costs**

|                     |                           | Approximate Spill Costs must exceed this (in \$ billions) for costs to exceed Net Benefits | Approximate Spill Costs must exceed this (in \$ billions) for costs to exceed Net Benefits |
|---------------------|---------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|                     |                           | Low Volume Spill                                                                           | High Volume Spill                                                                          |
| <b>Central GOM</b>  | <b>Shallow (&lt;200m)</b> | 1,100                                                                                      | 1,450                                                                                      |
|                     | <b>Deep</b>               | 7,300                                                                                      | 9,250                                                                                      |
| <b>Western GOM</b>  | <b>Shallow (&lt;200m)</b> | 1,100                                                                                      | 1,400                                                                                      |
|                     | <b>Deep</b>               | 6,900                                                                                      | 8,700                                                                                      |
| <b>Eastern GOM</b>  |                           | 7,700                                                                                      | 9,800                                                                                      |
| <b>Chukchi Sea</b>  |                           | 15,000                                                                                     | 16,500                                                                                     |
| <b>Beaufort Sea</b> |                           | 6,200                                                                                      | 6,500                                                                                      |
| <b>Cook Inlet</b>   |                           | 2,600                                                                                      | 2,550                                                                                      |

In addition to considering the break-even analysis results separately on both the probability of a spill and the potential costs from the spill, graphing the two variables can clarify the improbability that the risked cost of a catastrophic oil spill would be greater than the net benefits of a program area. Figure 4 shows the breakeven set of frequency and cost points in the diagonal line for a high-volume catastrophic spill in the mid-price case of the deepwater Central GOM program area. All points below or to the right of this line show costs and frequencies where the risked cost of a spill would be greater than the net benefits. However, all the points above or to the left represent combinations of frequencies and costs which, even considering the risked value of a catastrophic oil spill, would still leave positive net benefits in the program area. The point near the y-axis is the estimated frequency (1 in approximately 40,000 wells) and the estimated cost (approximately \$26 billion) for a catastrophic oil spill in the deepwater Central GOM. This point is clearly very far above the break-even line. Of course, a catastrophic oil spill is a binary event, so in the unexpected event of a catastrophic oil spill, the conditional costs in Table 13 would be the ones actually experienced. Similar graphs (not presented here) were constructed for each of the program areas, and they all show estimated costs and frequencies far to the left of the break-even line.

**Figure 4: Break-Even Analysis of a High Volume Spill in the Central GOM Deepwater Compared to the Undiscounted Mid-Price Case Net Benefits**



Absent a new OCS Five Year Program, the substitute energy sources also contain risk of a catastrophic event. These events are discussed in the section entitled Catastrophic Risks of the No Sale Options and the costs of a tanker spill in the GOM are described in the section entitled Estimated Cost of a Catastrophic Tanker Oil Spill.

**Recent Risk Reduction Efforts**

The historical statistical analysis period from 1964 to 2010 includes many regulatory, process and technological advances in the offshore oil and gas industry. Moreover, the frequency analysis of historical spill rates itself does not account for concerted efforts since the *Deepwater Horizon* event that further reduce the risk of a catastrophic spill. The programmatic EIS provide an extensive discussion on risk reduction efforts in Section 4.3.3 (U.S. Department of the Interior/BOEM, 2012a).

Industry and government have adopted significant steps to both reduce the likelihood of well control incidents and prevent an incident from developing into a catastrophic spill. These efforts address a spectrum of factors throughout the OCS exploration and development process. The Bureau of Safety and Environmental Enforcement (BSEE) has initiated a series of recent reforms aimed at strengthening existing regulations to prevent spills, including the Drilling Safety Rule, Workplace Safety Rule, and additional

inspection and compliance efforts (U.S. Department of the Interior/BSEE, 2011). The Drilling Safety Rule implemented more rigorous standards for well design, casing and cementing practices, and blowout preventers. The Workplace Safety Rule requires companies to implement and maintain Safety and Environmental Management System (SEMS) programs. SEMS is a performance-based system for offshore drilling and production operations focusing on hazard analysis and mitigating risks. BSEE has also proposed a follow-on SEMS rule that further expands required training and requires third-party, independent audits of operators' SEMS programs. The Gulf of Mexico region has added 46 new inspectors with plans to add even more.<sup>42</sup> BSEE inspectors now witness far more activity on drilling rigs than before the *Deepwater Horizon* event, including critical tests of blowout preventers. Further reducing the likelihood of a well control incident developing into a catastrophic oil spill, BSEE now requires operators to have access to a well containment system before approving a drilling permit.

In addition to these regulatory and procedural reforms, government agencies and industry have expanded and refocused a number of research and development efforts aimed at improving technologies for spill prevention, containment and response, many that pre-date the *Deepwater Horizon* event:

- BSEE Technology Assessment and Research (TA&R) Program: The program has funded over 700 research projects since the 1970's related to oil, gas, and renewable energy development and is increasingly focused on safety issues associated with operations in the Arctic environment.<sup>43</sup> BSEE also operates the Ohmsett, the National Oil Spill Response Research and Renewable Energy Test Facility in Leonardo, New Jersey. This is the only facility where full-scale oil spill response equipment testing, research, and training can be conducted in a marine environment with oil under controlled environmental conditions (waves and oil types).<sup>44</sup>
- Department of Energy's Ultra-Deepwater (UDW) Research Program:<sup>45</sup> This is a joint government-industry R&D program run by the Department of Energy and originally focused generally on R&D related to deepwater oil and gas production. Since the *Deepwater Horizon* event the program has shifted its emphasis to assessing and mitigating risk associated with drilling operations. The Ultra-Deepwater Advisory Committee (UDAC), which advises DOE on the UDW Program, has also recommended research on human factors related to drilling safety.<sup>46</sup>

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42 As of May 2012. See:

[http://www.bsee.gov/uploadedFiles/BSEE/BSEE\\_Newsroom/Speeches/2012/Speech-OTC%20Breakfast%20Keynote-05-01-2012.pdf](http://www.bsee.gov/uploadedFiles/BSEE/BSEE_Newsroom/Speeches/2012/Speech-OTC%20Breakfast%20Keynote-05-01-2012.pdf)

43 See <http://www.bsee.gov/Research-and-Training/Operational-Safety-and-Engineering.aspx>

44 See <http://www.bsee.gov/uploadedFiles/Fact%20Sheet-Ohmsett%20FINAL.pdf>

45 The full title of the program is the Ultra Deepwater and Unconventional Natural Gas and Other Petroleum Resources Program. See

[http://www.fossil.energy.gov/programs/oilgas/ultra\\_and\\_unconventional/2011-2012\\_Committees/Draft\\_2012\\_Annual\\_Plan\\_1-10-12.pdf](http://www.fossil.energy.gov/programs/oilgas/ultra_and_unconventional/2011-2012_Committees/Draft_2012_Annual_Plan_1-10-12.pdf)

46 See [http://www.fossil.energy.gov/programs/oilgas/advisorycommittees/UDAC\\_2012\\_Report\\_-\\_Final\\_-\\_03-08-12\\_Revi.pdf](http://www.fossil.energy.gov/programs/oilgas/advisorycommittees/UDAC_2012_Report_-_Final_-_03-08-12_Revi.pdf)

- Interagency Coordinating Committee on Oil Pollution Research (ICCOPR): The ICCOPR is a 14-member interagency committee established under the Oil Pollution Act of 1990. The purpose of the Interagency Committee is twofold: (1) to prepare a comprehensive, coordinated Federal oil pollution research and development plan; and (2) to promote cooperation with industry, universities, research institutions, State governments, and other nations through information sharing, coordinated planning, and joint funding of projects. Since the *Deepwater Horizon event*, the ICCOPR has focused on updating its research and technology plan to help align and inform the R&D efforts of its government member agencies.
- Ocean Energy Safety Advisory Committee (OESC): The OESC is a public federal advisory body of the nation’s leading scientific, engineering, and technical experts. The group consists of 15 members from federal agencies, the offshore oil and gas industry, academia, and various research organizations. The Committee provides critical policy advice to Secretary of the Interior through the BSEE Director on improving all aspects of ocean energy safety.<sup>47</sup>
- The oil and gas industry has assembled four Joint Industry Task Forces (JITFs) of industry experts to identify best practices in offshore drilling operations and oil spill.<sup>48</sup> These task forces’ outcomes and recommendations include:
  - **Procedures JITF:** This task force developed guidelines for the Well Construction Interface Document (WCID), which will address drilling contractor’s Health, Safety, and Environmental (HSE) plans and the operator’s SEMS and safety and risk management considerations on a well-by-well basis.
  - **Equipment JITF:** This task force reviewed current BOP equipment designs, testing protocols, and documentation. Their recommendations were designed to close any gaps or capture improvements in these areas. The JITF recommendations are being incorporated into an updated version of API RP 53 *Recommended Practices for Blowout Prevention Equipment Systems for Drilling Wells*, which is referenced in the BSEE drilling safety rule.
  - **Subsea Well Control and Containment JITF:** This task force developed recommendations for enhancing capabilities to capture and contain hydrocarbons quickly after a well blowout. This capability was achieved through the establishment of two collaborative containment companies – the Marine Well Containment Company (MWCC) and Helix Well Containment Group (HWCG). These two companies house the equipment and technology needed to quickly and effectively respond to loss of well control events.
  - **Oil Spill Preparedness and Response JITF:** This task force identifies potential opportunities for improving oil spill response.<sup>49</sup> The recommendations were subsequently addressed by the American Petroleum

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47 See <http://www.doi.gov/news/pressreleases/Ocean-Energy-Safety-Advisory-Committee-to-Hold-First-Meeting.cfm>

48 See <http://www.api.org/oil-and-natural-gas-overview/exploration-and-production/offshore/api-joint-industry-task-force-reports.aspx>.

49 See <http://www.api.org/~media/Files/Oil-and-Natural-Gas/Exploration/Offshore/OSPR-JITF-Project-Progress-Report-Final-113011.ashx>

Institute (API) Oil Spill Preparedness and Response Subcommittee (OSPRS). The OSPRS developed an industry-funded, multi-year work program with projects in seven different work areas including: planning, dispersants, shoreline protection and cleanup, oil sensing and tracking, in-situ burning, mechanical recovery, and alternative technologies.

While catastrophic spill risks can never be completely eliminated, significant government and industry efforts continue to reduce the likelihood of an OCS catastrophic oil spill. Human error is usually at least a contributing factor in low probability/high consequence accidents, and the greater focus on human factors including the SEMS hazard analysis and the MWCC/HWCG rapid response containment systems should greatly reduce the likelihood that a loss of well control event will evolve into a catastrophic oil spill as discussed in this analysis.

### ***Catastrophic Risks of the No Sale Options***

Any analysis of the risks of OCS exploration and development must also be balanced with the increased risk of other catastrophic events in the absence of the Five Year Program. BOEM analysis of energy markets under any of the No Sale Options indicate that there would only be a small decrease in overall energy demand as a result of the higher oil and gas prices in the absence of new OCS oil and gas development. The vast majority of foregone OCS production would be made-up by non-OCS oil and gas, or from other energy market substitutes such as coal, nuclear, or renewable energy sources. Most of these energy substitutes also entail some degree of catastrophic risk. It is difficult to quantify the extent catastrophic risks for producing energy substitutes would increase in the absence of OCS production, but the discussion below highlights the potential risks of these energy substitutes.

The most direct result of selecting the NSO would be increased production of domestic onshore oil and gas and increased foreign oil imports. While onshore oil production does not incur the risk of catastrophic well blowouts, the blowouts that could occur can still impose intense local damage. Further, substituting domestic oil with foreign oil effectively shifts most, but not all, of the oil spill risk from the United States to other countries. While many countries have extremely rigorous safety standards and regulatory regimes for oil and gas operations, other countries have significant gaps in addressing spill risk. In fact, devastating offshore oil spills have occurred worldwide. Notable examples include the 1979 IXTOC I well blowout that spilled a reported 10-30,000 barrels of oil per day into the Gulf of Mexico for nine months (NOAA's Office of Response and Restoration); and the 1988 Piper Alpha platform fire in the North Sea that killed 167 personnel (Paté-Cornell, 1993). Similarly, increased imports of oil via tanker increase the risk of major spills nearer sensitive areas and population centers as tankers can carry several million barrels of oil at a time. Multiple hull tanker designs have dramatically reduced the risk of a tanker losing its entire cargo, but likely worst case discharge scenarios for tanker accidents are still in the range of several hundred thousand barrels of oil (Etkin, 2003), and tankers tend to have more accidents close to shore, where the impacts are much more severe.

Other types of catastrophic impacts can occur even with energy substitutes to OCS oil and gas. Severe impacts may happen throughout the energy chain leading from the extraction of raw materials to the production of fuels to the end-use of energy for heating, transportation, or power production. In some cases, as in offshore oil and gas extraction, catastrophic accidents can occur upstream in the energy chain. In other cases, there is potential for catastrophic accidents in downstream activities such as power production.

Examples include:

- Nuclear Power: The high-profile disasters at Chernobyl and Fukushima highlight the risks of worst-case nuclear power plant accidents. Nuclear reactors also produce radioactive waste, creating the potential for environmental contamination and proliferation.
- Coal: Upstream mining involves the risk of mine accidents and severe environmental damage from acid runoff into groundwater. Downstream power generating activities produce fly ash, which must be contained and disposed of to avoid environmental contamination. In 2008, a fly ash storage pond breach in the Tennessee Valley Authority's (TVA's) Kingston, Tennessee, power plant resulted in the release of 5.4 million cubic yards of fly ash. Cleanup costs are estimated at \$1.2 billion.<sup>50</sup>
- Hydropower: Dam failures can have severe localized consequences for nearby communities. According to the Federal Emergency Management Agency (FEMA) and Army Corps of Engineers, there are more than 80,000 dams in the United States (2,200 of which are used for hydropower).<sup>51</sup> Approximately one third of all U.S. dams pose a "high" or "significant" hazard to life and property if failure occurs (U.S. Department of Homeland Security, 2011).
- Wind and Solar Power: While not generally subject to large catastrophic accidents during use, wind turbines and solar cells may use specialty metals whose processing often involves the use of hazardous chemicals and may occur in countries with much less stringent environmental standards than in the U.S. Rare earth elements – used extensively in wind turbines – are often mined from deposits co-located with radioactive thorium. Production of these materials could lead to severe long term environmental impacts.

It is difficult to quantitatively compare risk and impact of one energy source over another, and calculate incremental increases in risk from energy substitutions. However, these examples reiterate the fact that energy production is never risk-free.

### ***Detailed Cost Calculations***

Notwithstanding the extenuating considerations discussed in the previous two sections, BOEM proceeded to undertake calculation of the potential environmental and social costs of a catastrophic oil spill. This section describes the methodology and assumptions used in making those estimates. Results are reported in 2012 dollars. As discussed, the many factors that determine the severity of a catastrophic oil spill's impact can lead to large ranges of possible costs. Due to the unpredictability in the many factors driving effects

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50 See <http://www.bloomberg.com/news/2011-11-03/coal-ash-disaster-lingers-in-tennessee-as-regulation-fight-rages.html>.

51 See <http://geo.usace.army.mil/pgis/f?p=397:5:0::NO>.



from an unexpected future catastrophic OCS oil spill, the cost calculations are far less reliable than other measures developed for the Net Benefits analysis. In order to apply some cost value to a hypothetical catastrophic spill, BOEM estimates variations in cost measures based only on varying spill sizes. Other factors which influence cost, such as distance from shore, season of occurrence, and variability in ocean currents, are normalized at levels designed to produce a higher end of effects from a given spill size. Accordingly, the results estimated below represent a more severe outcome than can be expected to happen on average or at random.

## Methodology

As described above, a catastrophic oil spill event is assumed to be characterized by the release of a large volume of oil over a long period of time from a well control incident. However, the volume and duration of the release are only two of the factors that will influence the nature and severity of the event's impacts. Other factors, that alone or more likely in combination can influence a catastrophic oil spill's impact, include but are not limited to human response, spill location, reservoir size and complexity, response and containment capabilities, meteorological conditions, and the type of oil spilled. Rather than account for each of these variables and adjust the impacts and costs accordingly, BOEM uses a benefit transfer approach based only on spill size with the major cost categories serving as a rough approximation of the largest foreseeable environmental and social costs of a catastrophic spill in each planning area. The spill sizes are consistent with the Programmatic EIS spill size assumptions summarized in OCS Catastrophic Event Spill Sizes. The benefits transfer approach is a method that applies values obtained from previous studies or historical data to a new situation where primary data has not been collected.

The economic cost of a catastrophic oil spill for this analysis is the value of the resources used or destroyed as a result of the spill. The economic cost of a spill may differ from the amount of compensation paid by responsible parties to those affected. Compensable damage is dependent upon particular legal statutes in place in the affected countries and may or may not include all aspects of the economic cost of a spill.

The report from Industrial Economics, Inc. titled *Inventory of Environmental and Social Resource Categories Along the U.S. Coast* (2012d) describes the challenges to estimating the costs for a potential catastrophic oil spill:

- When describing the potential impacts associated with a catastrophic event, it is important to distinguish between changes in economic *value* and changes in regional economic *activity*. Value, more specifically net economic value or consumer surplus, is measured by what individuals are *willing to pay* for something above and beyond what they are required to spend. This concept of value is recognized as the appropriate measure to compare the costs and benefits of policy alternatives and measure damages resulting from injury to natural resources.<sup>52</sup> Alternatively, economic activity reflects commercial revenues,

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<sup>52</sup>See U.S. Environmental Protection Agency's *Guidelines for Preparing Economic Analyses* (2010) and U.S. Department of the Interior Natural Resource Damage Assessment Regulations (43 CFR Part 11).

employment, tax receipts, etc. and is generally driven by consumer expenditures. Large restitution or transfer payments are often more representative of the activity changes not the value changes associated with an oil spill.

- One of the most difficult economic costs of an oil spill to measure is the non-use value of the damaged ecosystem. Measuring the impact of a catastrophic spill event or tanker spill in monetary terms is increasingly dependent on the use of “equivalency analyses” such as habitat equivalency analysis or resource equivalency analysis. These techniques are replacing efforts to try to estimate social welfare values for natural resources for which there is no “market price,” using stated preference surveys which estimate consumer surplus through the creation of hypothetical markets. In general, equivalency analyses determine the necessary scale of actions to restore the habitat and the time it would take to deliver a quantity of natural resource services equal to the reduction in ecosystem services over time. The magnitude of these equivalency costs can vary considerably based on the location, scale, and complexity of the resources.

Where market prices are non-existent it becomes necessary to assess the cost of damages using other, somewhat less direct methods. This analysis considers both the direct, market-based components of the economic cost (e.g., spill containment and clean-up, commercial fishing) and the non-market value of damages for resources not exchanged in markets (e.g., recreational activities, natural resources). Ideally, survey-based data would be collected for the non-market valuation. However, as in this analysis, when it is not feasible to undertake an original study to obtain the non-market values, the benefit transfer approach is used.

### **Potential Effects**

In the broadest terms, as described in *Inventory of Environmental and Social Resource Categories* a catastrophic event in any of the program areas would have the potential for direct impacts on (1) physical and biological resources, and (2) the public’s use and enjoyment of these physical and biological resources, as well as (3) direct and indirect impacts on regional economic activities, many of which are dependent upon healthy physical and biological resources and (4) clean-up and containment costs. Each of these four categories of impacts is described briefly below (Industrial Economics, Inc., 2012d). The Programmatic EIS (Department of the Interior/BOEM, 2012a) and *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d) provide a broad analysis of the impact categories that could be impacted from a catastrophic oil spill.

The discussion on physical and biological, public use, and economic activity resources below comes from the report *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d). This report contains information on the current level of resources and activities in each of the program areas.

## **Physical and Biological Resources**

In all program areas, each phase of a catastrophic oil spill has the potential to result in adverse impacts to coastal or marine habitats and wildlife. The impact on physical and biological resources resulting from a spill of imported oil from a tanker would be largely the same as those resulting from a catastrophic oil spill from a well control incident. The exception would be that in the case of a tanker spill, the potential for acute and chronic effects on biological organisms in the water column is reduced, but not impacts on the ocean surface.

The impact on physical and biological resources in each of the program areas as a result of a catastrophic spill are shown below as natural resource damages (NRD).

## **Public Use of Resources**

Coastal areas offer numerous opportunities for the public's use and enjoyment of coastal and marine resources. These include beach use, hunting, subsistence harvests, wildlife viewing, and other recreational activities, and recreational fishing. A catastrophic oil spill or tanker spill would result in a decrease in the number of trips taken by the public for the purpose of engaging in one or more of these activities, whether due to the imposition of use restrictions, or simply the public's perception of the quality and availability of natural amenities in the event's aftermath. If a catastrophic event or tanker spill were to occur during, or just prior to, the peak coastal use season (as assumed in these calculations), the number of foregone trips for public use or subsistence harvests would be particularly high.

The costs analyzed in this analysis for the potential effects on public use of resources are subsistence harvests and coastal recreation.

## **Economic Activity**

Measures of changes in social welfare or consumer surplus are appropriate in the context of cost-benefit analyses and assessments of natural resource damages, but an alternative way of considering the impact of a catastrophic OCS or tanker oil spill is to assess its effect on regional economic activity in terms of jobs, labor income, and value added. In many, but not all coastal areas, regional economies tend to be dominated by tourism and recreation, commercial fishing, commercial shipping, and oil and gas production. Though not considered in detail here as this analysis attempts to study a national rather than regional approach, the national or regional economic context in which a catastrophic event occurs could have an effect on its impact. For example, during a recession or other period of low economic growth, workers who lose their jobs as a direct or indirect result of a catastrophic event may have greater than usual difficulty finding new employment, thereby increasing the severity of the economic effect (Industrial Economics, Inc., 2012d). On the other hand, some workers and/or owners in some businesses, such as commercial fishing, are likely to be hired to assist with containment/cleanup efforts or to house cleanup workers. Further information on the potential economic impacts can be found in *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d).

The economic activity costs included in this analysis are the lost profits from commercial fishing, life and non-fatal injuries, and the value of the oil and gas that is spilled, not the lost wages, etc. of factors of production that can find alternative employment.

### **Cleanup and Containment Costs**

Clean-up and containment costs often represent the bulk of compensable damages resulting from marine oil spills. Clean-up costs can vary widely and are generally related to several factors including: the type of oil spilled, the physical characteristics of the spill location, water and weather conditions, the volume of spilled oil and the time (season). Economic resources dedicated to clean-up efforts represent losses to the economy, even if they often provide an injection of funds into the disrupted local economies, since they cannot be used in other constructive activities. Clean-up costs including labor, materials, and contracts are valued at their market prices in 2012 dollars for this analysis.

In addition to hired labor, volunteer, military, and government labor are often used in cleanup efforts around the world. These efforts represent an opportunity cost of clean-up because the individuals' efforts could have been used in other productive enterprises. Due to the presence of both volunteer and other non-wage labor and market distortions, the explicit financial cost and the true economic cost of clean-up activities may differ.

Cleanup costs used in this analysis may include some transfer payments. To the extent that clean-up cost estimates reflect real resources employed to conduct remediation activities, the cost component is a real social outlay. However, there may be payments to local communities or interests that are made for reasons other than the direct clean-up work. To the extent that our estimates reflect payments other than these real clean-up costs, they are transfer costs. Because of the uncertainty of the fund sources and payment types for cleanup and containment costs, this analysis considers all containment and cleanup costs in our cost estimate for a catastrophic spill.

A number of statutes, including the Clean Water Act (33 U.S.C. 1321(b)(7)), and the Outer Continental Shelf Lands Act (43 U.S.C. 1350) provide for fines against the parties responsible for an oil spill or for violations related to an oil spill. In the context of this analysis for a catastrophic spill, fines and other penalties not specifically for natural resource damages or other social and environmental costs incurred by society are considered "transfer payments." These transfer payments simply move funds from the responsible party to the government or other entity. Transfer payments do not involve real resource costs and are therefore excluded from this analysis.

### **The Gulf of Mexico Program Areas**

Expanding upon the description of impacts presented in the previous section, this section details the specific Gulf of Mexico (GOM) resources and activities for which BOEM estimates environmental and social costs from a catastrophic event in the GOM program areas. For information on the resources that could potentially be damaged by a catastrophic oil spill, see *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d).

The social, environmental and oil spill clean-up cost factors in this analysis are generally estimated for the Central GOM, but are applied to catastrophic spill volumes in both the Eastern and Western GOM program areas. The only difference is that the Central and Western GOM program areas use values for both the shallow and deepwater while the Eastern GOM program area only uses the deepwater cost estimates.<sup>53</sup> While there are some differences in the coastal resources among planning areas, the many uncertainties in the factors that can determine spill severity (e.g., location, oil spill trajectory, time of year) a single GOM estimate serves the purpose of this analysis for a catastrophic spill.

Much of the analysis for potential GOM catastrophic spill costs is taken from the Regulatory Impact Analysis (RIA) for the Drilling Safety Rule published in 2010 (U.S. Department of the Interior/BOEMRE, 2010). The benefit-cost analysis for that rulemaking considered the environmental and social costs of a catastrophic spill event similar to the *Deepwater Horizon* event. Except for the spill containment and clean-up costs, the cost values for a catastrophic GOM oil spill are taken from this analysis.

The following sections will outline the different cost categories evaluated in the determination of a catastrophic oil spill cost in the GOM program areas.

### **Physical and Biological Resources**

For information on the natural resources along the coast of the GOM, see *Inventory of Environmental and Social Resource Categories* (Industrial Economics., Inc., 2012d). The avoided costs for natural resource damages (NRD) depend on the particular circumstances associated with an oil spill. Natural resource damages from prior oil spills (excluding the *Deepwater Horizon* event) were used to inform this analysis.<sup>54</sup> Information on natural resource damage settlements was collected on coastal oil spills under the authority of the Oil Pollution Act. The values contained in the legal settlement documents represent the best source of available information on the monetary value of the natural resource damages associated with coastal oil spills. Settlement amounts reflect compromises based on factors other than the actual amount of damages, such as litigation risk with respect to legal issues in the case or the ability of parties to support protracted, complex litigation. Further, although this information is useful for the purpose of this analysis, it should not be relied on to determine the amount of natural resource damages associated with any particular oil spill, including the *Deepwater Horizon* event. Additional information on the spill dataset, assumptions, and other information on the GOM NRD settlements used in this analysis can be found in the Drilling Safety Rule RIA (U.S. Department of the Interior/BOEMRE, 2010).

Summary information on the seven previous small spills used for the benefit-transfer is reported in Table 20. The average damages across these spills were **\$642 per barrel** in 2012 dollars, which BOEM uses as a conservative estimate for the cost calculations.

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53 The Eastern GOM program area is the limited area being offered for leasing in the Five Year Program. The Eastern Planning Area encompasses the entire OCS administrative area offshore Florida.

54 *Deepwater Horizon* Natural Resource Damage Assessments have not yet been settled and thus are not included in this analysis.

Since the average costs used for this analysis are based on spills much smaller than a catastrophic spill, they may have poor predictive capability for the NRD costs of catastrophic spills. Similarly, a future catastrophic spill could result in a significantly higher natural resource damage value per barrel spilled, depending on the circumstances of the spill. For example, in the Exxon Valdez oil spill, which resulted in a release of approximately 262,000 barrels of oil, natural resource damages plus assessment costs averaged \$5,405 per barrel in 2012 dollars, though in a much different climate and ecological context than the GOM.<sup>55</sup> Absent better data, the NRD assessment per barrel values estimated from seven previous GOM spills are used in each GOM program area, regardless of water depth.

**Table 20: Seven Gulf Coast Spills: Natural Resource Damages<sup>56,57</sup>**

| Event                                                 | Volume spilled (bbls) | NRD Assessment Costs \$/bbl \$2012 | Injured Resources                                                                                                                                                                                                                                      |
|-------------------------------------------------------|-----------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OCEAN 255/B-155/BALSA 37 Spill                        | 8,619                 | 1,367                              | 366 birds, 2117 sea turtles, 5.5 acres mangroves, 255 acres seagrasses, 0.85 acres salt marshes, 0.22 acres oyster beds, 20 linear miles seawalls, surface waters, 1.34 acres bottom sediments and 39,827 cubic yards of oiled sands (13 linear miles) |
| Blake IV and Greenhill Petroleum Corp. Well 25        | 2,905                 | 1,192                              | Intertidal marshes, marine and estuarine fish, bottom dwelling species, birds, sediments                                                                                                                                                               |
| Equinox Cockrell-Moran #176 well                      | 1,500                 | 947                                | 1,221 acres saltmarshes, birds/wildlife, 12 acres mangroves, 21 acres subtidal sediments, recreational activities                                                                                                                                      |
| Chevron BLDSU #5, West Bay Field                      | 262                   | 368                                | 200 acres fresh water marsh vegetation, birds/wildlife                                                                                                                                                                                                 |
| Ocean Energy/Devon Energy North Pass Storage Facility | 300                   | 451                                | 120 acres freshwater marsh                                                                                                                                                                                                                             |
| Texaco Pipeline Company Lake Barre oil spill          | 6,548                 | 116                                | 4,237 acres of marshes, 7,465 finfish and shellfish, 333 birds,                                                                                                                                                                                        |
| M/VWestchester                                        | 13,095                | 52                                 | Oiled shoreline and surface waters; lost recreational use of the Mississippi River.                                                                                                                                                                    |
| <b>Average per Event</b>                              |                       | <b>\$642/bbl</b>                   |                                                                                                                                                                                                                                                        |

The estimates of natural resource damages on a per barrel basis include several assumptions and caveats:

<sup>55</sup> The Exxon Valdez spill was a (non-OCS) case of a tanker spill close to shore and is probably more comparable to the risks that may be presented by activities in Cook Inlet or by tankering of imports in place of foregone OCS production. A discharge of the same amount of oil more than 100 miles from shore could have NRD costs much lower than \$5,405 per barrel.

<sup>56</sup> This estimate of natural resource damage per barrel is used as a proxy for catastrophic oil spills, but is not relevant in calculating damages for any particular oil spill, including the *Deepwater Horizon* event.

<sup>57</sup> Department of the Interior/BOEMRE, 2010

- For this analysis, BOEM assumes that total damages for a given hypothetical event are a linear function of the amount spilled. While the costs associated with an oil spill are not directly proportional to the volume spilled (i.e. the cost per unit volume spilled is not constant), absent available data for catastrophic spills, BOEM assumes a linear relationship. The damages ultimately depend on the characteristics of an individual spill as noted earlier in the reference to the Exxon Valdez spill.
- The average damage value is not adjusted to account for distance to shore, evaporation, degradation, dispersion, containment, etc. It is assumed that reported natural resource damage values already incorporate these effects to the extent the incidents are comparable.
- The injured resources for the cases in the dataset are similar to the resources potentially damaged from a large GOM spill in the future.

### **Subsistence Use**

Some communities and households in the GOM region depend on coastal natural resources for basic subsistence, but data on subsistence use is unrecorded and research is virtually nonexistent (Industrial Economics, Inc., 2012d). Based on the lack of data, valuing the subsistence use is extremely difficult (National Oceanic and Atmospheric Administration, 2006). Consequently, BOEM does not estimate lost subsistence use for the GOM program areas.

### **Coastal Recreation**

Recreation activities are often affected when oil spills result in contamination of coastal or ocean resources. These damages can result in value losses to consumers who are either unable or choose not to participate in a given recreation activity due to the contamination or who do participate but have a lower quality experience than if there was no contamination. In order to arrive at a value of lost recreation, BOEM obtained the number of recreation trips (or days) lost and average value for each particular type of recreation trip.

In this section, benefit transfer is used to produce estimates of the value of lost recreation associated with a catastrophic oil spill event in the Gulf of Mexico for recreational fishing and beach recreation. Other recreational activities such as scuba diving, snorkeling and boating are likely to be affected as well, but estimates for those activities are not included in this analysis due to lack of information about the impacts and potential overlap among activities. In order to arrive at an estimate of the impact of a catastrophic oil spill, several assumptions are required about the size, duration, and location of the spill within the GOM program areas. In addition, this analysis does not account for the substitution of less desirable or more costly recreation sites for those that are affected by the spill.<sup>58</sup>

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<sup>58</sup> Since this analysis is from a national perspective, if people chose not to go to beaches in the GOM and instead go elsewhere, they would still receive some consumer surplus from their trip. As a result, this analysis should net out the substitute consumer surplus. However, due to increasing complexities and the desire to develop costs from the upper end of a range, BOEM does not consider this substitute effect. As a result, the estimated consumer surplus losses are likely greater than they would be from a national perspective.

### **Recreation Fishing**

Similar to other GOM estimates, recreational fishing social costs are taken from the RIA for the 2010 Drilling Safety Rule (U.S. Department of the Interior/BOEMRE, 2010). Benefit transfer was used to value the lost recreational fishing trips. Consumer surplus estimates (in dollars per activity day) were obtained from the same previous non-market valuation studies of recreational fishing used in the RIA (U.S. Department of the Interior/BOEMRE, 2010).<sup>59</sup>

All values in the seven studies were converted to current (2012) dollars, which resulted in an average value of \$57.89 per day. This value was multiplied by the number of trips estimated to be lost from both State waters and the Federal exclusive economic zone (EEZ) to arrive at total estimated consumer surplus over the three-month period.<sup>60</sup> The total recreation value lost over the period is estimated to be **\$118.8 million** in 2012 dollars.

### **Beach Recreation**

The detailed analysis for valuing GOM beach recreation losses can also be found in the RIA for the Drilling Safety Rule (U.S. Department of the Interior/BOEMRE, 2010). Ideally, the number of recreation days lost would be calculated from beach surveys or flight surveys conducted during the affected period compared with data from the same time the previous year. In the absence of actual visitor counts, certain assumptions were made to estimate the recreation days lost. Using the *Deepwater Horizon* event as a data point, the percentage of oiled shoreline in each state as of July 22, 2010, was used to approximate the percentage of recreation days in each state that was affected. This calculation may underestimate lost beach days for much of the area because the total shoreline used to calculate the percentage of area affected includes areas that are not used for beach recreation.

Although most beaches along the Gulf Coast may remain open after a catastrophic oil spill, decreased visitation and a reduction in experience quality, ignoring possible offsetting gains from reduced crowding, for those that still participate in beach recreation are likely to occur. In this analysis, BOEM assumes that all beaches remain open, with a decrease in recreation days of 20% compared to historic levels. BOEM also assumes that remaining visitors experience a loss in consumer surplus due to decreased quality of the recreation activity. BOEM assumes a 20% loss in quality for each recreation day affected, following Chapman and Hanemann (2001).

Consumer surplus values for beach recreation per activity day were obtained from eight studies conducted in the Gulf Coast region.<sup>61</sup> The consumer surplus values averaged \$94 per activity day. This value was then multiplied by the number of recreation days in each state to arrive at a total consumer surplus value for beach recreation during the three

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59 See Table 17 on page 56 of the RIA (Department of the Interior/BOEMRE, 2010).

60 The number of trips lost is based on data from the *Deepwater Horizon* event. The lost fishing trips are estimated on page 53 of the RIA (Department of the Interior/BOEMRE, 2010).

61 These studies are shown on page 56 in Table 17 of the RIA (U.S. Department of the Interior/BOEMRE, 2012).



month period. Using these values, BOEM estimates a loss in the value of beach recreation of **\$80.2 million** in 2012 dollars over the period. These estimates do not explicitly account for the availability of substitute beach sites, or the differences in behavior of local versus out of state visitors. As discussed earlier, if suitable substitutes are available, the decrease in consumer surplus would be smaller than the current assumption of no substitutes.

### **Commercial Fishing**

For this analysis, commercial fishing is separated from recreational and “subsistence” fishing so that the appropriate cost calculations can be made for each group. For commercial fishing, BOEM analyzed the lost fishing profits<sup>62</sup> that would occur as a result of a catastrophic oil spill. One approach to calculating commercial fishing profits requires tallying revenue earned by industry operators, and subtracting operating costs. Operating costs include labor costs, such as wages for harvesting and processing; and non-labor costs such as fuel and supplies. For information on the commercial fishing industry in the GOM program areas, see *Inventory of Environmental and Social Resource Categories Along the U.S. Coast* (Industrial Economics, Inc., 2012d).

The Drilling Safety Rule RIA gathered available data on landings, commercial fishing revenues, and other factors (U.S. Department of the Interior/BOEMRE, 2010). Table 18 shows the data collected from the Drilling Safety Rule RIA on the profits and fishing closures following the *Deepwater Horizon* event. The “days of closure” column shows the effective days of closure of the entire commercial fishing area offshore Louisiana, Mississippi, and Alabama after the *Deepwater Horizon* event. Using the portion of the month that was closed to fishing, the commercial fishing profits were reduced by the percentage of days of effective closure in each month resulting in the lost profits in the final column. The table has been updated since the RIA was published with additional data for August, September, and October.

For this analysis, commercial fishing impacts are calculated based on the potential impact on commercial fishing profits, not because BOEM is estimating individual losses, but because lost commercial fishing profits are used as a proxy to represent welfare value lost to the nation as a result of a catastrophic spill. Welfare value is lost to the nation from smaller harvests, more resources expended for the same harvests, etc. To estimate the loss in profits, BOEM uses the estimated days of closure of fishing area.

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<sup>62</sup> Producers’ profits are used as a proxy for producer surplus.

**Table 18: Estimated Gulf State Profits Lost to Closures<sup>63</sup>**

|                   | <b>Days of Closure</b> | <b>Days in Month</b> | <b>Commercial Fishing Profits (LA, MS, AL) millions (2009\$)</b> | <b>Lost profits, millions (2009\$)</b> |
|-------------------|------------------------|----------------------|------------------------------------------------------------------|----------------------------------------|
| <b>May</b>        | 3.9                    | 31                   | \$6.90                                                           | \$0.90                                 |
| <b>June</b>       | 10.9                   | 30                   | \$12.00                                                          | \$4.40                                 |
| <b>July</b>       | 8.9                    | 31                   | \$8.80                                                           | \$2.20                                 |
| <b>August</b>     | 6.3                    | 31                   | \$10.20                                                          | \$2.09                                 |
| <b>September*</b> | 4.8                    | 30                   | \$10.20                                                          | \$1.64                                 |
| <b>October*</b>   | 2.3                    | 31                   | \$10.20                                                          | \$0.77                                 |
|                   |                        | <b>Total</b>         | <b>\$58.30</b>                                                   | <b>\$12.00</b>                         |

\*Due to lack of available data, August profits were used as an estimate of profits for September and October.

Based on the historical data from the *Deepwater Horizon* event, the lost profits to commercial fisheries due to a catastrophic oil spill in the GOM are estimated to be **\$13.0 million** in 2012 dollars (\$12.0 million in 2009 dollars).

### **Life and Nonfatal Injuries**

As of 2010, two recorded deepwater blowout events resulted in injuries or fatalities. The first event, a 1984 blowout, resulted in four fatalities and three injuries and the second event, the 2010 *Deepwater Horizon* event resulted in eleven fatalities and seventeen injuries. For purposes of estimating costs from a catastrophic spill, BOEM averaged the life and nonfatal injuries in these two cases for the impact of a hypothetical catastrophic blowout. Remaining assumptions on the value of statistical life and nonfatal injuries can be found in the RIA for the 2010 Drilling Safety Rule (U.S. Department of the Interior/BOEMRE, 2010).

For the purpose of calculating the impact of a catastrophic spill, each statistical life is valued at \$8.5 million.<sup>64</sup> Based on the estimated value of eight deaths per incident, and the statistical value of a life at \$8.5 million, the fatality impacts of a catastrophic well control incident are estimated to be *\$68 million* in 2012 dollars.

Workers, on average, value non-fatal injuries on the job somewhere from \$20,000 to \$70,000 per expected job injury (Viscusi, 2005).<sup>65</sup> BOEM estimates an average value of job injuries as the mid-point of this range at \$45,000 per injury. Assuming ten injuries

63 Data collected from the 2010 *Deepwater Horizon* event (U.S. Department of the Interior/BOEMRE, 2010). See *NOAA 2011* for closure data.

64 The \$8.5 million value is the EPA value of statistical life of \$7.4 million updated to current 2012 dollars. Although oil rig workers are involved in an inherently risky occupation, based on the lack of consensus in previous research focused on adjusting estimates of statistical life values for occupational risk, BOEM uses the EPA recommended figure for this analysis.

65 For example, a worker at the high end of this range would require \$2,000 a year to face a one-in-25 chance of being injured that year (Viscusi, 2005).

expected per catastrophic oil spill, the value of non-fatal injuries as a result of a catastrophic spill is \$450,000 in 2012 dollars.

The combined value of fatal and nonfatal injuries is estimated to be **\$68.45 million** in 2012 dollars per catastrophic spill event.

### **Oil and Gas Production**

BOEM is not estimating lost producer and consumer surplus for declines in the OCS oil and gas activity stemming from a catastrophic oil spill because such impacts are speculative. BOEM does, however, count the value of hydrocarbons lost in a well blowout and catastrophic spill at \$100/bbl; an estimate that includes any lost natural gas.

### **Spill Containment and Clean-up**

Spill and Containment costs are taken from the BP *Deepwater Horizon* event of 2010. In a January 31, 2012 fact sheet, BP estimated clean-up and containment costs to be \$14 billion (BP 2012). Using a spill size for the *Deepwater Horizon* event of 4.9 million barrels this yields a clean-up and containment cost of **\$2,857 per barrel** in 2012 dollars.

### **Cost Estimates for a Catastrophic Spill in the Gulf of Mexico**

The environmental and social costs for Gulf of Mexico hypothetical catastrophic oil spills discussed above are summarized in Table 21.

**Table 21: Conditional Environmental and Social Costs for a Catastrophic Oil Spill in the Gulf of Mexico**

| Cost Category (GOM)                                                                                                                                                                       | \$/bbl  | GOM Shallow Catastrophic Spill (bbls) | GOM Shallow Catastrophic Spill (bbls) | GOM Deepwater Catastrophic Spill (bbls) | GOM Deepwater Catastrophic Spill (bbls) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------|---------------------------------------|-----------------------------------------|-----------------------------------------|
| <b>PER BARREL COSTS (\$ millions)</b>                                                                                                                                                     |         |                                       |                                       |                                         |                                         |
| Estimated Spill Size (barrels)                                                                                                                                                            |         | <b>900,000</b>                        | <b>3,000,000</b>                      | <b>2,700,000</b>                        | <b>7,200,000</b>                        |
| Natural Resource Damages (\$/bbl)                                                                                                                                                         | \$642   | \$578                                 | \$1,926                               | \$1,733                                 | \$4,622                                 |
| Value of lost hydrocarbons (\$/bbl)                                                                                                                                                       | \$100   | \$90                                  | \$300                                 | \$270                                   | \$720                                   |
| Spill Containment and Cleanup (\$/bbl)                                                                                                                                                    | \$2,857 | \$2,571                               | \$8,571                               | \$7,714                                 | \$20,571                                |
| <b>PER INCIDENT COSTS (\$ millions)</b>                                                                                                                                                   |         |                                       |                                       |                                         |                                         |
| Recreation (Fishing and Tourism) Loses per incident                                                                                                                                       |         | \$199                                 | \$199                                 | \$199                                   | \$199                                   |
| Commercial Fishing Profit Loses per incident                                                                                                                                              |         | \$13                                  | \$13                                  | \$13                                    | \$13                                    |
| Value of Life and Nonfatal Injury loses per incident                                                                                                                                      |         | \$68                                  | \$68                                  | \$68                                    | \$68                                    |
| <b>TOTAL SPILL COST (\$ millions)</b>                                                                                                                                                     |         |                                       |                                       |                                         |                                         |
| <b>TOTAL:</b>                                                                                                                                                                             |         | <b>\$3,519</b>                        | <b>\$11,077</b>                       | <b>\$9,998</b>                          | <b>\$26,194</b>                         |
| *Impacts not quantified include other health effects, commercial shipping, other impacts to the OCS oil and gas industry, property values, subsistence, and other consumer price impacts. |         |                                       |                                       |                                         |                                         |

## Cook Inlet, Alaska

As the home to more than half the state’s residents, the Cook Inlet area is a key economic center of Alaska (ECONorthwest, 2010). As discussed in *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d), a catastrophic oil spill in the Cook Inlet has the potential to damage wildlife and ecosystems and could have harmful effects on the area’s recreation, commercial fishing, subsistence harvests, and tourism.

### Physical and Biological Resources

For a discussion on the physical and biological resources available in the Cook Inlet, see *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d). The Exxon Valdez incident provides an estimate for the natural resources damages possible in the Cook Inlet. In the Exxon Valdez oil spill, which resulted in a

release of approximately 262,000 barrels of oil, natural resource damages plus assessment costs averaged **\$5,405 per barrel** in 2012 dollars.<sup>66</sup>

### Subsistence Use

Estimates for Native Alaskan Cook Inlet area subsistence use are obtained from the OCS Study *Long-Term Consequences of the Exxon Valdez Oil Spill for Coastal Communities of Southcentral Alaska* (U.S. Department of the Interior/MMS, 2001). In the year after the Exxon Valdez spill, subsistence harvests declined from 9 percent to 77 percent in ten Alaska Native communities of Prince William Sound, lower Cook Inlet, and the Kodiak Island Borough. The primary reason for this decline was subsistence users' fears that oil contamination had rendered the resources unsafe to eat and later, fears that populations of subsistence resources had declined. While the decline in the value of subsistence harvests may be offset by compensation for employment in oil spill clean-up, that offsetting impact is not considered here.

BOEM estimates the subsistence losses of 50 percent of the harvest (taken from Table VII-1, U.S. Department of the Interior/MMS, 2001) in the year of the spill and 25 percent of the harvest (taken from Table VII-2, U.S. Department of the Interior/MMS, 2001) in the year following a spill in the Lower Cook Inlet area. The losses are approximately the subsistence harvest losses experienced for the Lower Cook Inlet area following the Exxon Valdez Spill. The population of Native Alaskans potentially impacted by subsistence harvest is about 4,100 individuals (Table V-5, U.S. Department of the Interior/MMS, 2001) which is also an estimate based on the impacts of the Exxon Valdez spill. The per capita harvest is estimated to be 300 pounds which is slightly below the village average harvest and above that of Native Alaskans living in towns (Table V-17, U.S. Department of the Interior/MMS, 2001). The value of subsistence use of \$105 per kilogram is from the OECM documentation (Industrial Economics, Inc. et al., 2012a).

Table 22 summarizes the calculations for the estimated value of Native Alaskan lost subsistence harvests for a catastrophic oil spill in Cook Inlet.

**Table 22: Estimated Cook Inlet Subsistence Losses**

|                                                                                    | <b>Year of Spill</b> | <b>Year After Spill</b> |
|------------------------------------------------------------------------------------|----------------------|-------------------------|
| <b>Baseline Subsistence Harvest Per Capita (lbs)</b>                               | 300                  | 300                     |
| <b>Subsistence Loss (%)</b>                                                        | -50%                 | -25%                    |
| <b>Per capita harvest loss (lbs)</b>                                               | -150                 | -75                     |
| <b>Estimated Pounds lost, (Based on 4,100 Native Alaskans in Southeast Alaska)</b> | -615,000             | -307,500                |
| <b>Kilograms (2.2 lbs/kg)</b>                                                      | -279,545             | -139,773                |
| <b>Value at \$105/kg</b>                                                           | <b>-\$29,352,273</b> | <b>-\$14,676,136</b>    |

<sup>66</sup> See Appendix B: Natural Resource Damage Data (U.S. Department of the Interior/BOEMRE, 2010)

Summing the impacts of the year of the spill and the next year, the total value of lost Cook Inlet subsistence from a catastrophic oil spill is estimated to be about **\$44 million**.

### **Coastal Recreation**

Information on the types and impacts of tourism in the Cook Inlet region can be found in *Inventory of Environmental and Social Resource Categories Along the U.S. Coast* (Industrial Economics Inc., 2012d).

### **Recreational Fishing**

Most of south-central Alaska's recreational activity is based in the Cook Inlet area (Industrial Economics Inc., 2012d). To calculate the potential recreational fishing losses due to a catastrophic spill, BOEM starts with the average number of trips taken in the area. The Alaska Sport Fishing Survey found that visits from 2006-2010 for Saltwater Fishing in the Cook Inlet averaged 389 trips per day (number of angler-days).<sup>67</sup> BOEM then multiplied the number of trips by the duration of the spill (using the upper end of the range, 80 days). BOEM assumes that all of the trips during the spill period are lost because, unlike in the GOM, it is unlikely that any portion of the Cook Inlet would be untouched by oil in the event of a catastrophic spill. The assumption that 100 percent of the fishing will be lost is likely an upper estimate but is used to capture some of the subsistence value residents other than Native Alaskans in South-Central Alaska may lose.

A 2003 study estimates that the consumer surplus values for recreational fishing in the Cook Inlet had an average value of \$139.75 (in 2012 dollars) after weighting for local, Alaska, and non-resident fisherman. Consumer surplus value per fishing day was taken from the literature (Criddle et al., 2003). The number of fishing trips lost multiplied by the value of a fishing trip results in the total value of fishing trips lost. For the purposes of estimating a the value of losses from recreational fishing, BOEM calculates a 100 percent loss over an 80 day spill to total **\$4.35 million** (in 2012 dollars).

### **Wildlife and Whale Watching**

In summer 2011, over one million people visited southeast Alaska and about 884,000 visited south central Alaska. These figures clearly reflect the fact that individuals are visiting more than one region during their trips. Of the total summer visitors, 52% indicated they engaged in wildlife watching (McDowell Group, 2011)

Some wildlife watching activities in south central Alaska would likely be adversely affected by an oil spill. For the purpose of developing an estimate of the value of the potential wildlife viewing recreation losses that might be associated with a large oil spill, the focus is on visits to south central Alaska.

The average number of visits to south central Alaska from 2006-2011 was 912,411 (McDowell Group 2011). Based on other data from the Fish and Wildlife Survey data, 52% (474,454 visitors) view wildlife and have a value of \$118.65 per day (U.S.

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<sup>67</sup> Ideally BOEM would want monthly data in order to estimate losses for a particular time of year. However, only annual data is available, so the annual value is divided by 365 to get the trips per day value.

Department of the Interior/FWS, 2006). BOEM assumes the worst case duration scenario that the spill occurs in the summer and lasts for 80 days (53% of the summer season). Assuming half the value is lost from a catastrophic spill in the summer season lasting 80 days, the total value is approximately **\$15 million** in 2012 dollars.<sup>68</sup>

### **Commercial Fishing**

As discussed in *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d), a catastrophic oil spill in the waters of Cook Inlet could significantly damage the area's commercial fishing industry. The report goes on to state that, "within the Cook Inlet, salmon (particularly sockeye salmon) accounts for most of the economic value derived by the fishing industry." In 2008, the industry harvested approximately 21 million pounds of salmon with a value of \$22.3 million (Resource Development Council for Alaska, Inc., 2010). Because the Cook Inlet is unlike the fishing areas in the Gulf of Mexico in that there are less likely to be fishing areas not contaminated by oil in the event of a catastrophic spill, this analysis estimates the full single year value of Cook Inlet Salmon Fishing output of **\$22.3 million** would be lost as the result of a catastrophic spill.

More information on the impact of commercial fishing and seafood processing in the Cook Inlet can be found in *Inventory of Environmental and Social Resource Categories Along the U.S. Coast* (Industrial Economics, Inc., 2012d).

### **Spill Containment and Clean-up**

Spill and Containment costs are taken from the 1989 Exxon Valdez spill and adjusted to 2012 dollars. The Exxon Valdez spill was approximately 262,000 bbls and resulted in clean-up costs of \$2.1 billion (in 1991 dollars).<sup>69</sup> Converted to 2012 dollars, this total results in clean-up costs of \$3.57 billion or **\$13,635 per barrel**.

### **Cost Estimates for a Catastrophic Spill in the Cook Inlet**

The values for a catastrophic spill in the Cook Inlet program area are summarized in the Table 23.

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68 Note that the actual impact can vary greatly from the estimated number as all spills may not occur in the summer, no adjustment has been made for partial day visits, all wildlife watching trips may not be in areas impacted by a spill, whale watching is not monetized separately, and the visits of residents are not included.

69 See Exxon Shipping Co. et al. v. BAKER et al.

<http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=US&vol=000&invol=07-219>

Calculation: (\$2,902,410,000/262,000bbls)

**Table 23: Conditional Environmental and Social Costs for a Catastrophic Oil Spill in the Cook Inlet**

| Cost Category (Cook)                                                                                                                                                                      | \$/bbl          | Low Catastrophic Spill (bbls)          | High Catastrophic Spill (bbls) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------|--------------------------------|
|                                                                                                                                                                                           |                 | <b>PER BARREL COSTS (\$ millions)</b>  |                                |
| <b>Estimated Spill Size (barrels)</b>                                                                                                                                                     |                 | <b>75,000</b>                          | <b>125,000</b>                 |
| Natural Resource Damages (\$/bbl)                                                                                                                                                         | <b>\$5,405</b>  | \$405                                  | \$676                          |
| Value of lost hydrocarbons (\$/bbl) <sup>70</sup>                                                                                                                                         | <b>\$100</b>    | \$8                                    | \$13                           |
| Spill Containment, Cleanup and Damage Assessment (\$/bbl)                                                                                                                                 | <b>\$13,635</b> | \$1,023                                | \$1,704                        |
|                                                                                                                                                                                           |                 | <b>PER INCIDENT (\$ millions)</b>      |                                |
| Native Alaskan Subsistence Harvests                                                                                                                                                       |                 | \$44                                   | \$44                           |
| Recreation (Fishing and Tourism) Loses per incident                                                                                                                                       |                 | \$20                                   | \$20                           |
| Commercial Fishing Profit Loses per incident                                                                                                                                              |                 | \$22                                   | \$22                           |
| Value of Life and Nonfatal Injury loses per incident <sup>71</sup>                                                                                                                        |                 | \$68                                   | \$68                           |
|                                                                                                                                                                                           |                 | <b>TOTAL SPILL COSTS (\$ millions)</b> |                                |
| <b>TOTAL (\$Millions):</b>                                                                                                                                                                |                 | <b>\$1,589</b>                         | <b>\$2,546</b>                 |
| *Impacts not quantified include other health effects, commercial shipping, other impacts to the OCS oil and gas industry, property values, subsistence, and other consumer price impacts. |                 |                                        |                                |

## The Chukchi and Beaufort Seas, Alaska

### Physical and Biological Resources

As described in *Inventory of Environmental and Social Resource Categories*, the Arctic Ocean of Alaska’s North Slope is unique among U.S. coastal waters. Ice formation typically begins in October, and does not begin to break up until April or May. The ecological food web in the Arctic consists of primary producers and other microorganisms, benthic invertebrates, fish, marine mammals, and birds. Primary producers rely on sunlight, making seasonal differences critically important to the functioning of Arctic ecosystems (Industrial Economics, Inc., 2012d).

Given the limited information available to estimate the vast range of potential social and environmental costs from a catastrophic spill in the Arctic, BOEM is using a “benefit-transfer” technique.<sup>72</sup>

<sup>70</sup> The same hydrocarbon loss value from the GOM is used for the Cook Inlet.

<sup>71</sup> Taken from the life and nonfatal injury values for the GOM.

<sup>72</sup> Benefit transfer takes the estimated costs from previous studies and transfers them to the current context. In situations where time or resources do not permit extensive data collection or primary research, benefit-transfer may be an appropriate technique for evaluating the magnitude of economic costs of a hypothetical event. There are many caveats that accompany use of this approach, the most important perhaps being the



To estimate the natural resource damages for the Beaufort and Chukchi program areas, BOEM doubles the dollar per barrel factor used for the GOM. The unique nature of Arctic resources do not allow for a benefit transfer from the Cook Inlet. While doubling of the GOM values may appear arbitrary, BOEM believes that damages from a catastrophic oil spill likely are somewhere in-between the Cook Inlet and the GOM per-barrel damages, so doubling the GOM values may overstate the damages in the Arctic, although the costs for any particular spill will vary widely. The doubling the \$642 per barrel natural resource damage cost for the Arctic results in a figure that is close to the two highest dollar per barrel spills in Table 20. Labor, materials, and transportation drive cleanup costs and each of these will be significantly more expensive in the Arctic.

Since no natural resource damage estimates are available for a possible catastrophic oil spill in each of the Arctic planning areas BOEM extrapolates using existing estimates. The GOM planning areas use the NRD settlements from seven historical spills all much smaller than a catastrophic spill. For the Arctic, the sensitivity is lower compared to the biota in the Gulf of Mexico, but the resiliency and recovery is also expected to be lower.<sup>73</sup> The Chukchi and Beaufort planning areas are considered less sensitive to the impact of a catastrophic oil spill due a lower population of plant and animal life. Offsetting that lower sensitivity is the fact that it is likely less resilient due to the longer life cycles and generational recovery time for plants and animals. The generational cycle in the Arctic for many animals may be several years, while the generational cycle in the GOM may be closer to seasons or a year.

Alaska costs as double GOM costs is a relationship used in some other BOEM analyses to estimate oil and gas exploration and development costs in the Arctic. Thus, absent other NRD data, this relationship also is judged appropriate for applying to natural resource damage costs. The \$642 per barrel costs for natural resource damages in the GOM are being doubled to **\$1,284/bbl** in 2012 dollars for both the Chukchi and Beaufort program areas.

### **Subsistence Use**

Most of the population and activity near the Arctic program areas occurs in small subsistence communities (Industrial Economics, Inc., 2012d). The harsh climate and the difficulty of physically accessing the North Slope limit recreational public use in the Arctic (Industrial Economics, Inc., 2012d). For more information on the communities using subsistence harvests in the Arctic, see *Inventory of Environmental and Social Resource Categories* (Industrial Economics, Inc., 2012d).

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extent to which the baseline site or situation from which the values are to be transferred is similar to those in the current study to which those values will be applied.

73 The scaling for the Arctic planning areas generally considers both sensitivity and resilience, but due to lack of data, is just estimated. The term “sensitivity” is the vulnerability of the planning area to the impacts of a catastrophic oil spill. Resilience is comprised of two elements: the planning area’s ecosystems ability to resist change, and ability to recover from significant stress (catastrophic oil spill) that has occurred. While analytical results of sensitivity and resiliency differ, considered together they provide a more comprehensive understanding of how and why program areas could be considered “sensitive” in the context of estimating NRD.

For a catastrophic oil spill, it is assumed that two entire years of Arctic marine mammal subsistence harvests and one and one-half years of Bowhead whale harvests would be lost. Based upon a historical average of the estimated kilograms of bowhead and marine mammal subsistence harvested, BOEM assigns a loss value of **\$20.85 million** in the Beaufort and **\$68.57 million** in the Chukchi program areas regardless of the size of the spill. BOEM recognizes that no monetary value can be placed on the cultural value of subsistence harvests to Native Alaskans, but as a proxy for this cultural value, BOEM uses these estimated monetary values. The values and calculations are summarized in Table 24.

**Table 24: Arctic Harvest Subsistence Values**

|                                                              | Average Whales | Estimated Kilos Harvested | Value of Annual Bowhead Harvest (\$105.00/kg) | Ratio Marine Mammals to Bowhead Whales | Estimated Marine Mammals Harvest (kilos) | Estimated Value of Other Marine Mammals \$105.00/kg | Estimated Value of Fall BW & Annual MM Harvest for Year of Spill (\$105.00/kg) | Estimated Value of All Bowhead Whale & Marine Mammal Harvest for Year Following Spill (\$105.00/kg) |
|--------------------------------------------------------------|----------------|---------------------------|-----------------------------------------------|----------------------------------------|------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Fall Beaufort Harvest:                                       | 3.2            | 36,794                    | \$3,863,388                                   |                                        |                                          |                                                     | \$3,863,388                                                                    | \$3,863,388                                                                                         |
| Spring Beaufort Harvest:                                     | 8.9            | 102,694                   | \$10,782,890                                  |                                        |                                          |                                                     |                                                                                | \$10,782,890                                                                                        |
| Beaufort Marine Mammals                                      |                |                           |                                               | 0.080                                  | 11,147                                   | \$1,170,414                                         | \$1,170,414                                                                    | \$1,170,414                                                                                         |
| Total Beaufort:                                              |                | 139,488                   |                                               |                                        |                                          |                                                     | \$5,033,803                                                                    | \$15,816,692                                                                                        |
| <b>Total Estimated Beaufort Subsistence Loses (1.5 yrs.)</b> |                |                           |                                               |                                        |                                          |                                                     |                                                                                | <b>\$20,850,495</b>                                                                                 |
| Fall Chukchi Harvest:                                        | 7.4            | 85,670                    | \$8,995,352                                   |                                        |                                          |                                                     | \$8,995,352                                                                    | \$8,995,352                                                                                         |
| Spring Chukchi Harvest:                                      | 8.9            | 102,694                   | \$10,782,890                                  |                                        |                                          |                                                     |                                                                                | \$10,782,890                                                                                        |
| Chukchi Marine Mammals                                       |                |                           |                                               | 1.006                                  | 189,527                                  | \$19,900,329                                        | \$19,900,329                                                                   | \$19,900,329                                                                                        |
| Total Chukchi:                                               |                | 188,364                   |                                               |                                        |                                          |                                                     | \$28,895,681                                                                   | \$39,678,571                                                                                        |
| <b>Total Estimated Chukchi Subsistence Loses (1.5 yrs.)</b>  |                |                           |                                               |                                        |                                          |                                                     |                                                                                | <b>\$68,574,252</b>                                                                                 |

**Assumptions:**

- The fall bowhead whale hunt and marine mammal harvest are impacted in the year of the catastrophic spill. Both the spring and fall harvests are forgone in the year following a catastrophic spill.
- The value of the subsistence harvests is \$105 per kilogram value which is from BOEM's OECM model (Industrial Economics, Inc. et al., 2012a). BOEM recognizes that no monetary value can be placed on the cultural value of subsistence harvests by Native Alaskans.
- Beaufort includes the Native villages of Nuiqsut and Kaktovik, Chukchi includes Barrow, Wainwright, and Pt. Hope.
- Values/rates/ratios taken from January 2008 NOAA FEIS for Issuing Annual Quotas to the Alaska Eskimo Whaling Commission (NOAA, 2008) and the NOAA database on Bowhead whale harvests<sup>74</sup>.
- Assume 25,372 pounds per whale harvested (NOAA 2008, Table 3.5-2)
- Average Kilograms per whale 11,533
- Unlike some of the other values which are converted to a dollar per barrel metric, the same seasonal loss is used for both low and high volume catastrophic spill event sizes.

74 See <http://www.fakr.noaa.gov/protectedresources/whales/bowhead/eis0108/EISBowheadSections.pdf>

## **Commercial Fishing**

Based on climate change concerns, as of 2009, the United States government has banned commercial fishing in U.S. waters north of the Bering Strait, so no estimates of commercial fishing values are being made for the Arctic. More information on commercial fishing in the Arctic can be found in *Inventory of Environmental and Social Resource Categories*.

## **Spill Containment and Clean-up**

Rates of oil biodegradation in the Arctic are expected to be lower than temperate environments such as the GOM. While a significant number of vessels are contracted in case of contingency, and clean-up equipment is prepositioned, in the case of a catastrophic spill, significant resources would still need to be moved from other parts of Alaska and the lower 48 states. Sea ice coverage may assist in some oil-spill response techniques, such as in-situ burning and chemical dispersant application, but the results of these techniques are unknown.

Because of the higher costs in the Arctic oil spill response, clean-up, and containment costs are also being doubled from the GOM program areas. Doubling the GOM value of \$2,857 per barrel from Table 21 yields a clean-up and containment cost of **\$5,714 per barrel** in 2012 dollars.

## **Cost Estimates for a Catastrophic Spill in the Chukchi and Beaufort**

The values for a catastrophic spill in the Arctic area are summarized in the Table 25.

**Table 25: Conditional Environmental and Social Costs for a Catastrophic Oil Spill in the Arctic**

| Cost Category (Arctic)                                                                                                                                                                                            | Dollar per Barrel Cost   | Beaufort Catastrophic Spill (bbls) | Beaufort Catastrophic Spill (bbls) | Chukchi Catastrophic Spill (bbls) | Chukchi Catastrophic Spill (bbls) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| <b>PER BARREL COSTS (\$ millions)</b>                                                                                                                                                                             |                          |                                    |                                    |                                   |                                   |
| <b>Estimated Spill Size (barrels)</b>                                                                                                                                                                             |                          | <b>1,700,000</b>                   | <b>3,900,000</b>                   | <b>1,400,000</b>                  | <b>2,200,000</b>                  |
| <b>Natural Resource Damages (\$/bbl)</b>                                                                                                                                                                          | \$1,284                  | \$2,183                            | \$5,008                            | \$1,798                           | \$2,825                           |
| <b>Value of lost hydrocarbons (\$/bbl)<sup>75</sup></b>                                                                                                                                                           | \$100                    | \$170                              | \$390                              | \$140                             | \$220                             |
| <b>Spill Containment, Cleanup and (\$/bbl)</b>                                                                                                                                                                    | \$5,714                  | \$9,714                            | \$22,286                           | \$8,000                           | \$12,571                          |
| <b>PER INCIDENT COSTS (\$ millions)</b>                                                                                                                                                                           |                          |                                    |                                    |                                   |                                   |
| <b>Value of Life and Nonfatal Injury loses per incident (\$million)<sup>76</sup></b>                                                                                                                              |                          | \$68                               | \$68                               | \$68                              | \$68                              |
| <b>Subsistence Harvests (\$million)</b>                                                                                                                                                                           |                          | \$21                               | \$21                               | \$69                              | \$69                              |
| <b>TOTAL SPILL COSTS (\$ million)</b>                                                                                                                                                                             |                          |                                    |                                    |                                   |                                   |
|                                                                                                                                                                                                                   | <b>TOTAL \$Millions:</b> | <b>\$12,156</b>                    | <b>\$27,772</b>                    | <b>\$10,074</b>                   | <b>\$15,753</b>                   |
| *Impacts not quantified include other health effects, commercial shipping, other impacts to the OCS oil and gas industry, property values, recreational and commercial fishing, and other consumer price impacts. |                          |                                    |                                    |                                   |                                   |

### Estimated Cost of a Catastrophic Tanker Oil Spill

As mentioned in the section titled Catastrophic Risks of the No Sale Options, BOEM assumes a catastrophic event could involve an ultra large crude carrier (ULCC) tanker of 550,000 deadweight tonnage and a maximum cargo of 3.52 million barrels grounding within 50 miles of shore and releasing up to 1.76 million barrels of its cargo. ULCCs offload at the Louisiana Offshore Oil Port (LOOP) and it would be highly unlikely that the spill would occur closer than 50 miles to shore. The largest event in the near shore GOM would likely be a spill from an Aframax tanker headed towards the Houston Ship Channel after lightering in the Western or Central GOM. The maximum spill volume in that case would most likely be 384,000 barrels. Therefore the cost estimates for a catastrophic tanker oil spill are applied to an oil spill of 384,000 barrels for the low case and 1.76 million barrels for the high case and are summarized in Table 26.

<sup>75</sup> The same hydrocarbon loss value from the GOM is used for the Arctic.

<sup>76</sup> Taken from the life and nonfatal injury values for the GOM.

**Table 26: Conditional Environmental and Social Costs for a Catastrophic Tanker Oil Spill Offshore in the GOM**

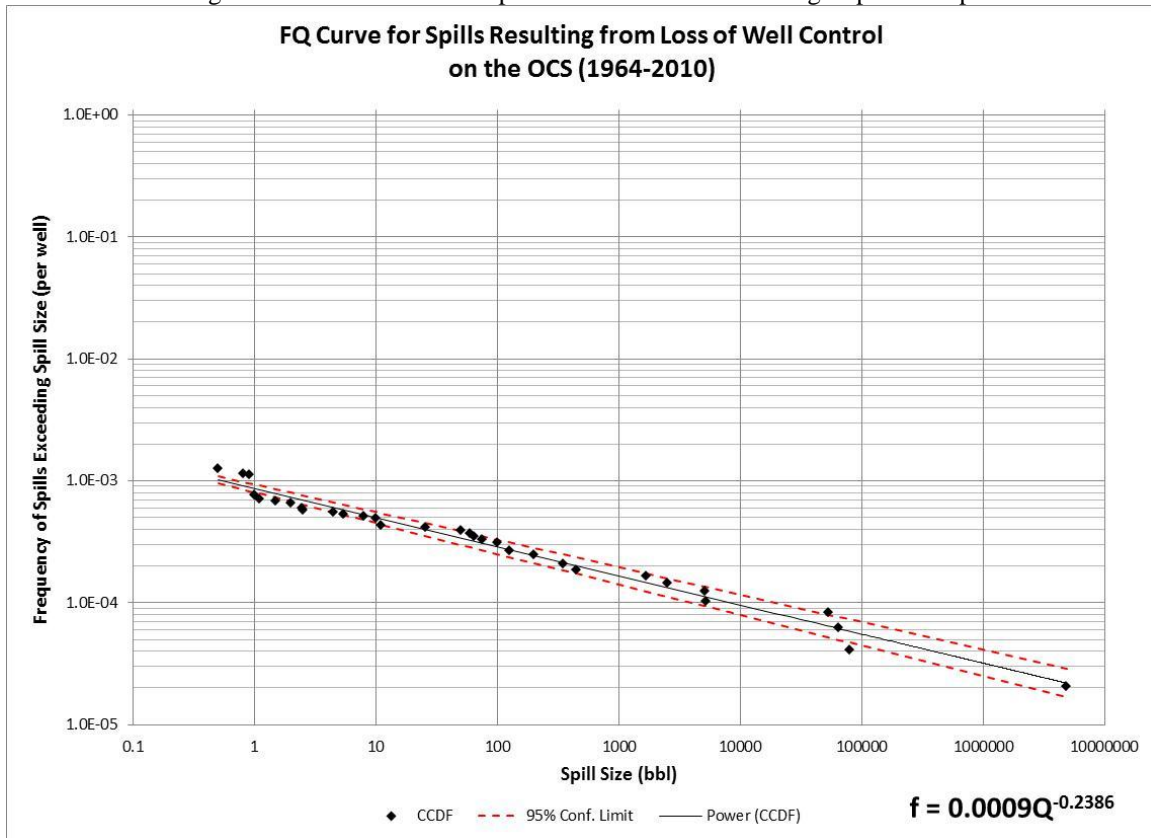
| Cost Category (Tankers)                                                                                                                                                                   | Dollar Per Barrel Costs | Tanker Catastrophic Spill (bbls)        | Tanker Catastrophic Spill (bbls) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|----------------------------------|
|                                                                                                                                                                                           |                         | <b>PER BARREL COSTS (\$ millions)</b>   |                                  |
| Estimated Spill Size (barrels)                                                                                                                                                            |                         | <b>384,000</b>                          | <b>1,760,000</b>                 |
| Natural Resource Damages (\$/bbl)                                                                                                                                                         | \$642                   | \$247                                   | \$1,130                          |
| Value of lost oil (\$/bbl) <sup>77</sup>                                                                                                                                                  | \$100                   | \$38                                    | \$176                            |
| Spill Containment, Cleanup and Damage Assessment (\$/bbl)                                                                                                                                 | \$2,857                 | \$1,097                                 | \$5,029                          |
|                                                                                                                                                                                           |                         | <b>PER INCIDENT COSTS (\$ millions)</b> |                                  |
| Recreation (Fishing and Tourism) Loses per incident (\$million)                                                                                                                           |                         | \$199                                   | \$199                            |
| Commercial Fishing Profit Loses per incident (\$million)                                                                                                                                  |                         | \$13                                    | \$13                             |
|                                                                                                                                                                                           |                         | <b>TOTAL SPILL COSTS (\$ millions)</b>  |                                  |
| <b>TOTAL (\$Millions):</b>                                                                                                                                                                |                         | <b>\$1,594</b>                          | <b>\$6,546</b>                   |
| *Impacts not quantified include other health effects, commercial shipping, other impacts to the OCS oil and gas industry, property values, subsistence, and other consumer price impacts. |                         |                                         |                                  |

### ***Detailed Frequency Calculations***

To make estimates regarding the risked cost of a catastrophic oil spill, an estimate of probability of an event occurring was necessary. However, given a lack of relevant catastrophic oil spill historical data points, any specific spill probability would be questionable. As a rough approximation, the frequency of loss of well control and the resulting size of oil spill was calculated. Figure 5 below shows the frequency of loss of well control experienced per well drilled with an oil spill exceeding a specified size. The equation from this calculation allowed BOEM to use the spill sizes defined in Table 11 to determine the frequency of loss of well control with a spill of low (or high) catastrophic spill volume. After Figure 5, BOEM lists thirteen points from the Programmatic EIS which describe how the frequency calculations were made (U.S. Department of the Interior/BOEM, 2012a).

<sup>77</sup> The same hydrocarbon loss value from the Gulf of Mexico is used for the oil lost in tanker spills.

**Figure 5: Estimated Frequency of OCS Crude and Condensate Spills**  
 Resulting from loss of well control per well drilled and exceeding a specified spill size



1. Figure 5 shows the frequency of loss of well control (LWC) per well exponentially decreases as spill size increases. See note 9 for more detail.
2. The BSEE database on LWC includes incidents from 1956 to the present day. Most records in the BSEE database can be viewed at <http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Listing-and-Status-of-Accident-Investigations.aspx>. The BSEE database also contains a few additional observations besides those available online. As can be expected, the quality of information improves as a function of time. Only the period 1964-2010 is considered herein because of adequate quality of the information. BOEM undertook a substantial effort to quality control data, when possible identifying and confirming for each incident the relevant API well number, bottom OCS lease number, platform and/or rig, etc. This allowed BOEM to check the timing of a particular LWC incident relative to well operations documented in shared BSEE/BOEM information management systems. BOEM successfully validated more than 90% of all records to well type and operational phase in advance of completing this analysis.
3. The sample size of OCS LWC incidents is small, even when including all OCS Regions. No LWC incidents have occurred or have been reported in the Alaska or Atlantic OCS Regions. To obtain a sufficiently large sample size to estimate both historical frequency of LWC and the relative frequency of different sized oil spills (resulting from LWC), 283 incidents between 1964 and 2010 are considered. LWC incidents occurred during exploration drilling/coring (75/2), development

drilling/coring (82/1), completion (21), workover (55), production and shut-in (37; a number during hurricanes), and temporary and permanent abandonment (10) operations. Most historical LWC incidents resulted in the surface release or diversion of natural gas; in fact, the database only includes 61 instances of crude or condensate surface releases since 1964. Moreover, the typical crude or condensate spill size is relatively small; the median spill size, including the DWH event, between 1964 and 2010 was 2 bbl.

4. The MMS changed the definition of and reporting requirements for LWC in 2006; prior to that, there was a reporting requirement for blowouts. This resulted in a detectable difference in LWC frequency after 2006 (see trend discussion below in note 7). It is possible that certain incidents that occurred before 2006 were not historically considered LWC incidents that would be considered such following the 2006 change. The BSEE database also contains records for the Gulf of Mexico OCS that SINTEF's worldwide blowout and well release database does not and vice versa. For example, there is a difference of twelve records in the 1983-2007 period. These differences can be attributed in part to the fact that BSEE and SINTEF use overlapping, but different definitions of LWC.
5. This analysis essentially assumes that wells spudded or drilled is an unbiased exposure variable (in aggregate) to estimate the frequency of LWC from all OCS operations. It is relatively simple to understand and collate and can be readily compared to BOEM's scenario of OCS exploration and development for the Five Year Program. However, BOEM recognizes that number of wells spudded or drilled likely underestimates all exposure over the varied exploration, development, and production operations during which LWC may occur. While the number of wells spudded or drilled works well for drilling-related incidents, the number of well completions, number of well workovers, number of active producing wells or well producing years, and number of temporary and permanent abandonment operations are expected to be comparatively better exposure variables for LWC incidents occurring during those operations. Not including that additional exposure (either in terms of an activity level or time exposure) results in a relatively conservative treatment of frequency estimation. For example, more than 42,000 downhole intervals were completed on wells in the Gulf of Mexico OCS alone during the 1964-2010 time frame, not accounting for injection intervals. Completion may involve a distinct re-entry into the borehole. While BOEM/BSEE has compiled the data for most of these other exposure variables for the historical period (1964-2010), the spill size data for such operational categories cannot be statistically analyzed (using this methodology) due to the small number of crude/condensate spills from LWC in each category.
6. The exposure variable, OCS wells spudded or drilled, includes original boreholes, sidetrack boreholes, and bypass boreholes for both exploration and development wells. No boreholes associated with both surface and bottom state leases are included in the exposure data. Similarly, no relief, stratigraphic test, COST, or other wells are included in exposure data. Approximately 48,450 exploration and development boreholes were spudded or drilled in the Alaska, Atlantic, Pacific, and Gulf of Mexico OCS Regions from 1964 through 2010 (36% exploration / 64% development). Many wells in the Pacific and Gulf of Mexico OCS actually have



numerous boreholes, especially when including bypasses and sidetracks. Approximately 25% of boreholes in the Gulf of Mexico and Pacific OCS Regions are bypasses and/or sidetracks. Note that less than 5,000 boreholes have been spudded or drilled in water depths greater than 200 m in the Gulf of Mexico and Pacific OCS Regions. Injection wells are included in the count of development boreholes. In the Gulf of Mexico OCS, boreholes originally spudded as exploration boreholes are often later completed and eventually produced. In this analysis, if LWC occurred during completion, workover or production operations, such incidents were considered development related.

7. There is no statistically significant trend in the frequency of LWC or LWC with spills (when standardized by wells spudded per year) except after the LWC rule changes introduced in 2006. Incident reporting associated with non-drilling operations increased by a factor of ~2 compared to the historical reporting rate. This suggests that it is likely that equivalent events were unreported prior to 2006. Because of the overall lack of definitive trend, the period from 1964 through 2010 was used in aggregate, despite rather substantial changes in regulation, technology, and industry operations/practices. This allows for the inclusion of some relatively large ( $\geq 1,000$  bbl) oil spills before 1971 when major regulations changes were introduced; otherwise, after 1971, the spill next largest to the DWH event is 450 bbl.
8. LWC frequencies can be standardized by operational phase and well type as is available for the SINTEF database (see DNV, 2011a). The LWC frequency across exploration, development, and production operations is not the same and treating them in aggregate introduces some error/uncertainty because of the lack of treatment of specific exposure. In aggregate, the OCS LWC frequency is 0.006 incidents per well spudded or drilled when accounting for all LWC incidents regardless of operational phase and oil spill occurrence. The OCS LWC frequency for exploration drilling is 0.0044 incidents per well spudded or drilled, whereas the OCS LWC frequency for development drilling is 0.0027 incidents per well spudded or drilled. While it has been suggested that there is greater incidence of kick (a precursor to LWC) in deepwater (defined here as  $>200$  m) (see note 11 below), the frequency for LWC in deepwater is less than shallow water. Of the 283 OCS LWC incidents considered, 21 instances of LWC occurred in  $>200$  m (13 LWC incidents from drilling; 7 of these 13 incidents were exploratory). In fact, only 5 crude/condensate spills (2 during exploration drilling; 2 during exploration well abandonment; 1 during a development well workover) have resulted from LWC incidents in  $> 200$  m. Over the same time period, the total vertical depth and average water depth of boreholes notably increased, especially since the early 1990s as industry moved into relatively deeper water and/or targeted relatively deep gas plays on the shallow Gulf of Mexico shelf. That trend is coincident with a decrease in the number of boreholes being spudded and drilled per year. Similarly, the number of boreholes relative to each well also increased over the time period considered. Despite these notable trends, the actual frequency of LWC in deepwater is less than in shallow water. Although frequency of LWC for wells characterized by HP/HT downhole conditions was not calculated, it is expected to show a comparatively greater incidence (DNV, 2011a).
9. The power law fitting ( $f = \alpha Q^\beta$ ) follows the methodology presented in DNV (2011b). In this equation,  $f$  corresponds to the frequency of crude/condensate spills per well

exceeding spill size  $Q$  (bbl). Alpha ( $\alpha$ ) describes the relative frequency of spill occurrence, whereas beta ( $\beta$ ) defines the power relation between spill size and frequency. For scaling purposes, alpha can be compared to the frequency for all LWC discussed above in note 8. The complementary cumulative density function (CCDF), or sample complementary cumulative frequency distribution, shows the number of spill events per exposure that are greater than or equal to a given spill size. The cumulative density function (CDF) is first estimated by ranking the OCS LWC spill observations by size and counting the observations equal to or less than that spill size. The CCDF essentially reverses the observation count for the CDF. The uncertainty in both the CDF and CCDF must be acknowledged given the limited sample size and relatively few observations in the extreme value tail. In fact, there are no observations between 80,000 bbl and 4,900,000 bbl, and approximately 96% of the cumulative spill volume following LWC is accounted for in a single incident (i.e., DWH event). The power law is fitted to the CCDF using least squares regression. The fit is statistically significant at the 99% level ( $r^2 = 0.98$ ). Confidence intervals at the 95% level were calculated and are displayed above.

10. The power law parameters and confidence limits only offer an approximation of the exceedance frequency of spill sizes related to LWC. The distribution of spill sizes resulting from LWC ( $n=61$ ) could not be definitively shown to follow a power law distribution, so estimates using least squares regression of the power law parameters may be biased (see Clauset et al., 2009). Dozens of other non-normal, extreme value probability distributions (e.g., log normal, exponential, general extreme value, etc.) were also tested against data observations using maximum likelihood estimators, and no distribution could confidently be fitted to the limited LWC spill data observations.
11. Using this method, there is insufficient LWC spill occurrence data to confidently differentiate by well type or operational phase, water depth, downhole parameters, etc., although these variables may contribute to well complexity and LWC risk. For example, Pritchard and Lacy (2011) report that wellbore instability (kick/loss of circulation) occurs as much as 10% of total deepwater time, and, moreover, that kick incidence (fluid influx from formation into the wellbore) is greater in deepwater wells than other “normal” wells. Holand and Skalle (2001) also suggested an increased kick frequency with borehole depth and water depth. The Mechanical Risk Index (MRI) has been suggested as a complementary analytical tool to better characterize well complexity and well control risk, as well as evaluate non-productive time and drilling cost (Pritchard and Lacy, 2011; Skogdalen and Vinnem, 2012). The MRI, described in detail in Kaiser (2007), accounts for the following principal factors: total measured depth, vertical depth, horizontal displacement, water depth, number of casing strings, and mud weight at total depth. The Macondo well has been classified as a particularly complex well according to the MRI criteria. It is important to note that drilling complexity and difficulty does not necessarily equate to frequency of LWC, despite the apparent relationship between kick frequency and certain borehole parameters (Holand and Skalle, 2001). Although certain parameters may contribute to additional risk, the OCS data suggests primary and redundant secondary barriers, newer technology, and better trained personnel (all common to deepwater wells given the investment requirements) may in part contribute to lower LWC frequency.

12. Alternative methods could be used to estimate the likelihood of occurrence of a catastrophic spill from LWC based on an event tree, fault tree, bow tie or modeled approach (DNV 2010a; DNV 2010c). For example, a different means to calculate the expected frequency of LWC could follow this example event tree: frequency of LWC for a specific operational phase, factor adjustment for different incident rates by water depth, factor adjustment for not being a shallow gas blowout, factor adjustment for surface flow as compared to underground flow, factor adjustment for whether the surface release is gas or crude/condensate, factor adjustment for BOP reliability or other barriers, etc. This could then be coupled with stochastic spill size distribution modeling based on historical spill size observations, predictions of worst case discharge, and/or historical/predicted discharge durations. The DNV 2010a analysis provides a recent example in part for exploration drilling in the Canadian Beaufort Sea; following such methods, DNV calculated that the likelihood of uncontrolled flow of oil after considering certain technological barriers was 1 per 100,000 exploration wells drilled. That assessment did not address the reduced expected frequency related to varying spill sizes from an uncontrolled surface flow.
13. This analysis does not account for new risk reducing measures (including those required by new BSEE regulations) which are likely to reduce the likelihood of a blowout (DNV 2010b, c) or control its potential size (e.g., capping, containment and well control technologies). This analysis of historical OCS LWC and crude and condensate spill observations again represents a conservative approach to frame the risk.

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## **The Department of the Interior Mission**

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



## **The Bureau of Ocean Energy Management Mission**

The Bureau of Ocean Energy Management (BOEM) manages the exploration and development of the nation's offshore resources. It seeks to appropriately balance economic development, energy independence, and environmental protection through oil and gas leases, renewable energy development and environmental reviews and studies.

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** Automatic reply: [EXTERNAL] Q re Oral Testimony opportunity & economic analysis

**Date:** Wed, 17 Aug 2022 20:27:32 +0000

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Thank you for your email. I am out of the office. Please reach out to Ben Davis, bdavis@oceana.org if you need an immediate response. Thank you.

**Diane Hoskins | Campaign Director | Oceana**

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: Director Meeting with NGOs/Oceana [external]

**Date:** Mon, 6 Mar 2023 21:00:29 +0000

**Inline-Images:** image001.png

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Hello Diane,

Thank you for following-up on the recommendations the group has about offshore methane emissions.

Both BOEM and BSEE have important roles to play when it comes to measuring, monitoring, and regulating methane emissions from activities on the OCS. I have summarized some of the ongoing work and listed the key points of contact for both BOEM and BSEE below.

BOEM POC: Holli Wecht (Holli.Wecht@boem.gov)

- BOEM conducts emissions inventories every three years. In 2021, we used a new web-based emissions reporting tool called the Outer Continental Shelf Air Quality System (OCS AQS). Operators input activity data into the tool (such as fuel used or volume vented/flared) and the tool will automatically perform QA/QC range checks and calculate the emissions including criteria pollutants, greenhouse gases such as methane, carbon dioxide and nitrous oxides, and hazardous air pollutants. The tool uses EPA Emissions Factors and EPA calculations to estimate the emissions. These emissions estimates are based on operator inputted data (bottom up emissions inventory; similar to EPA's National Emissions Inventory). We expect the final report this spring.
- BOEM has an interagency agreement with Argonne National Laboratory to draft three technical documents for BOEM: a Harm Document that details how BOEM's authorized oil and gas activities do harm to the coastal and marine environment; a document that explores possible offshore oil and gas mitigation opportunities (such as a leak detection and repair program); and a document that details what other onshore agency have drafted as far as methane regulations.
- BOEM has an interagency agreement with NASA to assess the use of satellite technology to monitor offshore criteria pollutants. NASA will fly a carbon mapper instrument to evaluate methane in the summer of 2024 in the Gulf of Mexico, plus sample methane emissions via research vessel. In addition, BOEM is in the NASA GHGSat data evaluation team validating methane data from the GHGSat offshore (targeted sources picked based on the emissions inventory, past carbon mapper flights, and OGOR volumes). This evaluation just started and will take a year to complete.
- BOEM included a lease stipulation ([Stipulation No. 8](#)) in the Final Sale Notice for Lease Sale 259 to address the methane royalty provision in the IRA. on the IRA royalty section.

BSEE POC Ramona Sanders (Ramona.Sanders@bsee.gov)

BSEE is collaborating on potential methods to improve detection, monitoring, measurement, and verification of greenhouse gas emissions from energy activities on the OCS. BSEE is also working on improving its field inspection training and procedures to identify inaccurate records on venting and flaring activities, which contribute to greenhouse gas emissions, and potential violations.

Peace,

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**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Friday, February 24, 2023 4 08 PM  
**To:** Klein, Elizabeth A <Elizabeth.Klein@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>; Annatoyn, Travis J <travis.annatoyn@sol.doi.gov>; Carr, Megan E <megan.carr@boem.gov>; Coffman, Sarah <Sarah.Coffman@boem.gov>; Lewandowski, Jill K <Jill.Lewandowski@boem.gov>; Kaller, Agatha-Marie (Arie) <Arie.Kaller@boem.gov>; Kendall, James J <James.Kendall@boem.gov>; Turner, Eric L <Eric.Turner@boem.gov>; Hammerle, Kelly K <Kelly.Hammerle@boem.gov>; Farmer, Isis U <Isis.Farmer@boem.gov>  
**Subject:** RE: Director Meeting with NGOs/Oceana [external]

Hi all,  
Thank you.

One quick follow up on the authority for the climate screen Q

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**Sent:** Thursday, February 23, 2023 3 24 PM  
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**Subject:** Director Meeting with NGOs/Oceana [external]  
**When:** Friday, February 24, 2023 3 30 PM - 4 00 PM (UTC 05 00) Eastern Time (US & Canada)  
**Where:** Zoom

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Framing the proposals  
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Passcode: (b) (5)

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**To:** "Hammerle, Kelly K" <Kelly.Hammerle@boem.gov>

**Cc:** "Furukawa, Yoko" <yoko.furukawa@boem.gov>, "Thundiyil, Karen A" <Karen.Thundiyil@boem.gov>, "Coffman, Sarah" <Sarah.Coffman@boem.gov>, "Lewandowski, Jill K" <Jill.Lewandowski@boem.gov>, "Kaller, Agatha-Marie (Arie)" <Arie.Kaller@boem.gov>, "Turner, Eric L" <Eric.Turner@boem.gov>

**Subject:** RE: Director Meeting with NGOs/Oceana [external]

**Date:** Tue, 28 Mar 2023 13:42:24 +0000

**Inline-Images:** image001.png

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Thank you, Kelly! No problem for the delay, we're refining our questions and will follow-up in the next couple weeks.

Appreciate it—  
Diane

---

**From:** Hammerle, Kelly K <Kelly.Hammerle@boem.gov>

**Sent:** Monday, March 27, 2023 1:39 PM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

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**Kelly Hammerle** (she/her)

National OCS Oil and Gas Leasing Program Manager

Chief, Program Development and Coordination Branch

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703-787-1613 (office) 703-342-8867 (mobile)

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**Subject:** RE: Director Meeting with NGOs/Oceana [external]

**Date:** Tue, 18 Apr 2023 18:03:02 +0000

**Attachments:** Proposal\_to\_Advance\_Conservation\_Goals\_in\_Public\_Waters.pdf

**Inline-Images:** image002.png; image003.png

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Hi Kelly,

Thank you. Just an update that I have been in touch with BSEE re: our offshore methane questions as they more pertain to BSEE/ONRR.

Also, in case helpful, attaching the background memo shared with Director Klein at the end of February. This is from—

Oceana

LCV

NRDC

Earthjustice

Ocean Defense Initiative

Center for American Progress

Ocean Conservancy

Cook Inlet Keeper

Healthy Gulf

Taproot Earth

Thanks, Diane

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## **PROPOSAL TO ADVANCE CLIMATE AND CONSERVATION GOALS IN PUBLIC WATERS THROUGH OFFSHORE LEASING REFORMS**

We urge the Biden administration to offer the next five-year Outer Continental Shelf (OCS) leasing program with no new leases. The Biden administration has an additional opportunity to ensure that the management of the OCS does not undermine its national climate and environmental justice commitments. The United States must ensure that any leases in the OCS - owned commonly by all Americans - prioritizes a clean energy future, protects the environment, ensures worker safety, and provides a fair return to taxpayers.

We propose that DOI and BOEM use its existing authority and discretion to advance the administration's goals on climate, safety, and the environment at every stage of the oil and gas process, from leasing through development. Our proposals include measures to ensure that companies operating on the OCS will do so responsibly, heighten protections for vulnerable marine mammals and ecosystems, and secure payment of fair market value for leases. We also propose that, consistent with the language of the Inflation Reduction Act (IRA), DOI include a "climate screen" in its planned oil and gas leasing regulations to require that leases can only be issued or developed when doing so is consistent with U.S. climate goals.

### **BEFORE LEASE SALES ARE HELD**

**Heighten competition to ensure a fair return from any lands leased-** BOEM establishes a minimum bonus bid prior to each lease sale. Since 2011, BOEM has used minimum bonus bids of \$25/acre for shallow water leases (<400 meters) and \$100/acre for deep water leases (400+ meters). Raising these minimum bid levels would positively affect OCS leasing by increasing competition on more appealing OCS blocks while reducing bidding on marginal blocks less likely to be developed, as BOEM observed in the 2023-2028 Proposed Five-Year Program.<sup>1</sup> Similarly, a BOEM analysis conducted in 2010 found that raising minimum bid levels by a factor of five would increase bid amounts on some tracts, decrease bidding on marginal tracts that would typically only receive a single bid, and have an insignificant effect on money raised through bids and royalties.<sup>2</sup>

---

<sup>1</sup> 2023-2028 Proposed Five-Year Program, at 9-22 (July 2022) (raising the minimum bid may have a positive impact on competition by "serv[ing] to narrow bidder interest to the more valuable blocks offered in the lease sale, thereby enhancing competition on the better blocks and encouraging bidders to focus their bidding on those blocks that they are most likely to explore and develop.")

<sup>2</sup> OCS Study BOEMRE 2011-014, Final Report: Policies to Affect the Pace of Leasing and Revenues in the Gulf of Mexico Summary Report (Nov. 2010), <https://www.boem.gov/oil-gas-energy/energy-economics/economics-division-studies>.



By raising minimum bonus bids, BOEM could also account for the option value<sup>3</sup> associated with offshore leasing.<sup>4</sup> When BOEM issues a lease, the agency temporarily transfers option value to the lessee. As the agency explained in the 2023-2028 Proposed Five-Year Program, increasing the minimum bonus bid would result in fewer OCS blocks receiving bids.<sup>5</sup> If these “passed-over blocks” are undervalued, then offering them at a subsequent lease sale could “generate option value and higher bonus bids for the retained blocks.”<sup>6</sup> Ultimately, by accounting for option value and increasing competition on the most attractive OCS blocks, raising the minimum bid would help ensure that the oil and gas industry pays the full external cost of leasing and reduce the externalized costs passed to taxpayers.

**Use stricter standards for qualifying bidders and accepting bids** - A “Fitness to Operate” standard would weed out companies with poor environmental and safety records. Making the ability to purchase new leases contingent on finishing decommissioning operations would similarly disqualify negligent companies while encouraging better practices. The Department of the Interior committed to developing a “fitness to operate” standard in its Nov. 2021 report.<sup>7</sup> It should follow through by establishing and codifying strict standards that will eliminate any would-be operators or lease-holders with poor safety, environmental, or reclamation histories, and would ensure all operators and lease-holders have the resources necessary to meet safety, environmental and financial responsibilities, including decommissioning. A potential fitness-to-operate standard for offshore oil and gas operators could include:

- A number of safety and environmental violations permitted (e.g. three ‘strikes’) before an operator is suspended from purchasing additional leases, has existing leases canceled, or is debarred. This type of standard would likely have to weigh the gravity of each accident, such that minor infractions are not counted to the same degree as major spills. This type of standard could also include the potential for reinstatement if a violating operator were to demonstrate fitness through an improved safety plan that is deemed to have resolved the underlying causes of the prior violation(s).
- A requirement that an operator provide a comprehensive safety plan, even without any history of violations, that the BOEM deems sufficient to prevent major spills or discharges. This standard could build upon the framework conceptualized by a team of Western Australia University researchers in 2013, which suggests that an operator’s overall safety capability should be assessed by separately measuring the human, organizational, and social (i.e. “safety culture”) capacity of a given operator.<sup>8</sup>

---

<sup>3</sup> Option value is the value gained by waiting to obtain more information before making a decision. Until BOEM issues a lease, the federal government retains the option to develop the oil and gas within that area. Jayni Foley Hein, *Harmonizing Preservation and Production*, Institute for Policy Integrity, at 13 (2015), <https://policyintegrity.org/publications/detail/harmonizing-preservation-and-production/>.

<sup>4</sup> Hein, *Harmonizing Preservation and Production*, at 13-17; *see also* Rachel Rothschild & Max Sarinsky, *Toward Rationality in Oil and Gas Leasing*, Institute for Policy Integrity, at 26-29 (2021), <https://policyintegrity.org/publications/detail/toward-rationality-in-oil-and-gas-leasing>.

<sup>5</sup> 2023-2028 Proposed Five-Year Program, at 9-22 (July 2022).

<sup>6</sup> *Id.*

<sup>7</sup> Report on the Federal Oil and Gas Leasing Program, Prepared in Response to Executive Order 14008, U.S. Department of the Interior, 12 (Nov. 2021).

<sup>8</sup> *See* Mark A. Griffin et, al, *A conceptual framework and practical guide for assessing fitness-to-operate in the offshore oil and gas industry*, 68 *Accident Analysis and Prevention* 156 (2014).

## CONDITIONS FOR LEASE SALES TO MOVE FORWARD

**Enhance protections for Rice’s whale and other marine mammals** - Offshore oil and gas activities harm marine wildlife not only through oil spills, but by increasing the risk of vessel collisions and introducing high-intensity noise to the marine environment. These activities pose a particular threat to the continued survival of the endangered Rice’s whale—the only great whale resident to the Gulf of Mexico and, *with fewer than 100 individuals*, one of the world’s most endangered marine mammals. The following proposals would enhance protections for Rice’s whale and other species in the Gulf. Except for the exclusion of habitat from new leasing and for the restriction on anchoring and the placement of structures in Rice’s whale habitat under new leases (bullets 1 and 5 below), BOEM should implement these measures through conditions of approval on new permits and plans, along with a notice to lessees (NTL) and lease stipulations for all new leases that memorialize these protections. By issuing an NTL, BOEM can ensure that these measures apply to all OCS operations approved after NTL issuance, not only those under new leases.

- **Prohibit new leasing throughout the full habitat of Rice’s whale.** A recent five-year NOAA study (“RESTORE study”) demonstrated that Rice’s whale’s habitat extends from an area in the upper depths of the De Soto Canyon in the eastern Gulf, along the continental shelf break between the 100m and 400m isobaths, through waters off Louisiana and Texas in the central and western Gulf.<sup>9</sup> This study represents the best available scientific information on Rice’s whale habitat, and BOEM deconflicted for this same habitat in identifying offshore wind lease areas in the central and western Gulf.<sup>10</sup> Similarly, BOEM should exclude this area—and a 10-kilometer (or greater) buffer around it, consistent with the agency’s treatment of the whale’s eastern Gulf habitat in LS 257—from all new oil and gas leasing. Because the whale’s habitat is so narrowly defined, such an exclusion would still easily allow BOEM to meet the 60-million-acre threshold for lease sales in the Inflation Reduction Act.
- **Extend ship-strike prevention measures through Rice’s whale’s full habitat range.** Rice’s whales are particularly vulnerable to collisions with vessels, with at least two whales struck by ships in recent years. BOEM currently requires vessels to follow ship-strike prevention measures in Rice’s whale habitat in the eastern Gulf, including a 10-knot speed limit and a prohibition on transits at night and during low-visibility conditions.<sup>11</sup> BOEM should extend existing ship-strike prevention measures to the entirety of the species’ habitat, as identified by the RESTORE study.

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<sup>9</sup> NOAA provides a detailed overview of the study on its website. See NOAA FISHERIES, *Trophic Interactions and Habitat Requirements of Gulf of Mexico Rice’s Whales*, <https://www.fisheries.noaa.gov/southeast/endangered-species-conservation/trophic-interactions-and-habitat-requirements-gulf-mexico>; see also M.S. Soldevilla et al., *Rice’s whale in the northwestern Gulf of Mexico: Call variation and occurrence beyond the known core habitat*, 48 *Endang. Spec. Res.* 155 (2022) (paper from RESTORE Act study, documenting persistent occurrence of Rice’s whale within the 100-400m isobaths). The area is also defined by NOAA biologists in a published paper that incorporates some of the study’s findings. Nicholas A. Farmer et al., *Modeling protected species distributions and habitats to inform siting and management of pioneering ocean industries: A case study for Gulf of Mexico aquaculture*, 17(9) *PLoS ONE* e0267333 (2022).

<sup>10</sup> See Memorandum from Michael Celata, BOEM, to Amanda Lefton, BOEM (Jul. 20, 2022).

<sup>11</sup> E.g., BOEM, Final Notice of Sale: Gulf of Mexico Oil and Gas Lease Sale 257 Lease Stipulations at stip. 4(B)(1) (2021).

- **Require use of best available noise-reduction technology for deep-penetration seismic surveys.** According to a Cornell University study, noise from seismic surveys dominates the acoustic environment of the Gulf region, chronically elevating noise levels in high-value marine habitats.<sup>12</sup> BOEM should require use of best available noise-reduction technology, such as modified airguns, and other methods, as well as compliance with any noise output standards that BOEM may set in the future, for all deep-penetration seismic surveys taking place in the northern Gulf. Such methods, while presently available and substantial in their noise reduction, are seldom employed by industry in the region. This measure would provide immediate, significant benefits for every cetacean species in the Gulf, including the Rice’s whale and the endangered sperm whale, as well as other marine wildlife.
- **Restrict deep-penetration seismic surveys throughout Rice’s whale habitat.** Acoustic disturbance from seismic surveys has large-scale effects on marine mammals and particularly on baleen whales like Rice’s whale, interfering with foraging and other vital behavior.<sup>13</sup> BOEM should restrict deep-penetration seismic surveys, such that noise from such surveys does not reach or exceed sound pressure levels of 140 dB (re 1 micPa (RMS))<sup>14</sup> anywhere in Rice’s whale habitat, as that habitat is defined in the RESTORE study.
- **Establish restrictions on permitting of other activities in Rice’s whale habitat for new leases.** Through lease stipulation, BOEM should prohibit anchoring and the placement of new structures, drilling rigs, and pipelines in Rice’s whale habitat, as that habitat is defined in the RESORE study, as a condition on all new leases. It is likely, as NOAA stated in listing the whale as endangered, that oil and gas development has contributed to the constriction of the species’ range.<sup>15</sup> These measures would prevent further damage to its limited habitat.
- **Require that industry vessels operating in Rice’s whale habitat meet quiet-vessel standards.** It is well established that vessel noise can disrupt baleen whale behavior, mask their communications, and induce chronic stress.<sup>16</sup> To reduce harmful noise impacts, BOEM should require that all industry vessels operating in or transiting through Rice’s whale habitat receive a quiet-vessel notation from an IACS-member ship-classification society, and that they comply with any vessel-quieting standards that BOEM may establish in future.

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<sup>12</sup> Bobbi J. Estabrook et al., *Widespread spatial and temporal extent of anthropogenic noise across the northeastern Gulf of Mexico shelf ecosystem*, 30 *Endang. Spec. Res.* 267-82 (2016)

<sup>13</sup> See, e.g., Susanna B. Blackwell et al., *Effects of Airgun Sounds on Bowhead Whale Calling Rates: Evidence for Two Behavioral Thresholds*, *PLoS One* (2015); Castellote et al., *Acoustic and behavioural changes by fin whales (Balaenoptera physalus) in response to shipping and airgun noise*, 147 *Biol. Conservation* 115 (2012); Salvatore Cerchio et al., *Seismic Surveys Negatively Affect Humpback Whale Singing Activity off Northern Angola*, 9(3) *PLoS One* e86464 (2014).

<sup>14</sup> This is the threshold at which species “take” begins according to the standard presently applied by NMFS under the Marine Mammal Protection Act.

<sup>15</sup> 84 Fed. Reg. 15,446, 15,459, 15,460, 15,463-64, 15474-75 (Apr. 15, 2019); see also Patricia E. Rosel et al., *Status Review of Bryde’s Whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act* (2016) (NOAA Tech. Memo. NMFS-SEFSC-692).

<sup>16</sup> See, e.g., Hannah B. Blair et al., *Evidence for ship noise impacts on humpback whale foraging behaviour*, 12 *Biol. Lett.* (2016); Danielle Cholewiak et al., *Communicating amidst the noise: modeling the aggregate influence of ambient and vessel noise on baleen whale communication space in a national marine sanctuary*, 36 *Endang. Spec. Res.* 59 (2018); Jennifer Tennessen & Susan Parks, *Acoustic propagation modeling indicates vocal compensation in noise improves communication range for North Atlantic right whales*, 30 *Endang. Spec. Res.* 225 (2016); Rosalind M. Rolland et al., *Evidence that ship noise increases stress in right whales*, 279 *Proc. Royal Soc’y B* 2363 (2012).

### **Revise regulations to ensure catastrophic incidents will be analyzed in environmental review -**

Before the *Deepwater Horizon*, federal regulators were not required to analyze lower-probability, high-risk events. For example, environmental assessments for proposed exploration activities in the Beaufort and Chukchi Seas explained that an extremely large spill from a blowout was “not a reasonably foreseeable event” and therefore was not analyzed as part of the assessment’s “worst-case scenario.”<sup>17</sup> The environmental assessments instead reviewed the potential effects of a small, 48-barrel fuel transfer spill<sup>18 19</sup>. After the *Deepwater Horizon* tragedy, CEQ recommended that BOEM better integrate information on the environmental consequences of a catastrophic oil spill into its NEPA documents, noting that “BOEM should identify potentially catastrophic environmental consequences and accurately assess them as part of its decision making.”<sup>20</sup> Likewise, the National Commission recommended that BOEM “incorporate the ‘worst-case scenario’ calculations from industry oil spill response plans into NEPA documents and other environmental analyses or reviews” to inform the agency’s “estimates for potential oil spill situations in its environmental analyses.”<sup>21</sup>

BOEM should revise its regulations to codify the requirement to analyze relatively low-probability, high-risk events as “effects of the action” under NEPA and the ESA to help ensure that the agency adequately accounts for the risks from these events and that the agency and other stakeholders are prepared to respond. In doing so, the agency should expansively define the assessment to encompass not only certain volume thresholds considered to be “large” or “catastrophic,” but also spills that may have catastrophic effects on the environment because of local conditions or proximity to sensitive habitats, (*e.g.*, the Exxon Valdez spill was 260,000 barrels but had catastrophic effects).

**Exclude the entire Flower Garden Banks National Marine Sanctuary (FGBNMS) from leasing –** In the proposed notice of sale for Lease Sale 259, BOEM proposes to exclude from leasing whole and partial blocks in the FGBNMS “as of the July 2008 *Memorandum on Modification of the Withdrawal of Certain Areas of United States Outer Continental Shelf from Leasing Disposition*.”<sup>22</sup> This exclusion does not cover the 2021 FGBNMS expansion, which added fourteen reefs and banks to the sanctuary and includes essential habitat for fish and habitat for endangered and threatened wildlife.<sup>23</sup> To protect this vital marine

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<sup>17</sup> MMS, Environmental Assessment: Shell Offshore Inc. 2010 Outer Continental Shelf Lease Exploration Plan for Camden Bay, Alaska, Beaufort Sea Leases A-2 (2009); MMS, Environmental Assessment: Shell Gulf of Mexico, Inc. 2010 Exploration Drilling Program, Burger, Crackerjack, and SW Shoebill Prospects Chukchi Sea Outer Continental Shelf A-2 (2009).

<sup>18</sup> See, *e.g.*, MMS, Environmental Assessment: Shell Gulf of Mexico, Inc. 2010 Exploration Drilling Program, Burger, Crackerjack and SW Shoebill Prospects Chukchi Sea Outer Continental Shelf A-2, at 31-32.

<sup>19</sup> BOEM did incorporate a “very large oil spill” risk analysis in its supplemental EISs for Chukchi Sea Lease Sale 193. See BOEM, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 In the Chukchi Sea, Alaska, Final Second Supplemental Environmental Impact Statement, Sec. 4.4 (Feb. 2015); see also BOEM, Final Supplemental Environmental Impact Statement, Oil and Gas Lease Sale 193, Chukchi Sea Planning Area, App. D (2011).

<sup>20</sup> Council on Environmental Quality, Report Regarding the Minerals Management Service’s National Environmental Policy Act Policies, Practices, and Procedures as They Relate to Outer Continental Shelf Oil and Gas Exploration and Development, 26-29 (2010).

<sup>21</sup> National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, 267 (2011).

<sup>22</sup> BOEM, Proposed Notice of Sale for Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sale 259 (2022), at 3-4, <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Proposed-NOS-259.pdf>.

<sup>23</sup> NOAA, *Flower Garden Banks National Marine Sanctuary Triples in Size* (Jan. 2021), <https://sanctuaries.noaa.gov/news/jan21/flower-garden-banks->

area from the impacts of oil and gas activities, BOEM should exclude the entire FGBNMS from leasing in all future Gulf of Mexico lease sales. The agency should also update its Topographic Features lease stipulation by establishing No-Activity Zones (NAZs) with associated buffer 4-Mile Zones around relevant banks of the expanded FGBNMS.<sup>24</sup>

**Protect topographic features with sensitive biological habitat** – BOEM should exclude from leasing all whole or partial blocks containing features that are currently protected by the “Topographic Features” lease stipulation and NTL No. 2009-G39 (“Biologically-Sensitive Underwater Features and Areas”). In the event these important features are not excluded from leasing as we recommend, BOEM should increase the buffer zones provided for in the “Topographic Features” lease stipulation and NTL No. 2009-G39 to a minimum of 1 mile for discharge of cuttings and drilling fluids and 1000 meters for bottom-disturbing activities to protect corals from sediment plumes. Additionally, BOEM should expand the “Topographic Features” lease stipulation and NTL No. 2009-G39 to protect low relief features that host vulnerable mesophotic coral communities based on the best available science, as proposed by Nuttall and co-authors (2022) in a NOAA-BOEM collaborative study.<sup>25</sup> The agency should designate such areas containing low relief features as no activity zones (NAZ) where applicable. In addition, BOEM should change the definition of “potentially sensitive biological features,” which currently includes features “that are of moderate to high relief (about 8 feet or higher)” to include features “of low relief (about 1 foot or higher).”<sup>26</sup>

**Improve financial assurance requirements to ensure lessees and operators meet decommissioning obligations** – Lessees and operators are required to provide financial assurances for their obligation to decommission oil and gas wells. Nevertheless, BSEE estimates that the liability for orphaned infrastructure on the OCS is approximately \$65 million. According to the Department of Interior’s 2021 report, BOEM and BSEE are working to improve financial assurance requirements “to better manage the risks associated with industry activities on the OCS.”<sup>27</sup> The agencies should issue a notice to lessees (NTL) memorializing improved financial assurance requirements as soon as possible.

## LEASE STIPULATIONS

The following mitigation measures should be included as lease stipulations in upcoming lease sales.

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[expansion.html#:~:text=Flower%20Garden%20Banks%20National%20Marine%20Sanctuary%20has%20been%20expanded%20from,the%20sanctuary's%20original%20three%20banks.](#)

<sup>24</sup> BOEM, Proposed Notice of Sale for Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sale 259: Lease Stipulations (“Lease Stipulation No. 5: Topographic Features”) (2022), <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Proposed-NOS-259-Lease-Stipulations.pdf>.

<sup>25</sup> Marissa Faye Nuttall et al., *Do Oil and Gas Lease Stipulations in the Northwestern Gulf of Mexico Need Expansion to Better Protect Vulnerable Coral Communities? How Low Relief Habitats Support High Coral Biodiversity*, *Front. Marine Sci.* 8:780248 (2022).

<sup>26</sup> Minerals Management Service, *Biologically-Sensitive Underwater Features and Areas*, NTL No. 2009-G39, at 2 (2010), <https://www.boem.gov/sites/default/files/regulations/Notices-To-Lessees/2009/09-G39.pdf>.

<sup>27</sup> Dept. of Interior, Report on the Federal Oil and Gas Leasing Program: Prepared in Response to Executive Order 14008, at 12 (Nov. 2021), <https://www.doi.gov/sites/doi.gov/files/report-on-the-federal-oil-and-gas-leasing-program-doi-eo-14008.pdf>.

**Require that all lessees have the capability to deploy the full range of Source Control and Containment Equipment (SCCE) to control or contain a blowout** - All eight SCCE requirements listed in 30 C.F.R. 250.462(b)(1-8) should be mandatory for all lessees.

**Require cement evaluation logs for complex wells and wells in environmentally sensitive locations** - Cement evaluation logs should be required for all offshore wells, and, in particular, for complex wells or wells in environmentally sensitive locations, to determine cement placement and quality and to verify cement repairs.

**Prohibit the use of a blowout preventer (BOP) that is under investigation** - Using a BOP that is under mandatory BSEE-required investigation should be prohibited.

**Exploration, Development, and Production Mitigating Measures** - The following mitigation measures listed in the 2017-2022 GOM Multisale EIS should be *mandatory* lease stipulations:

- **Using Ultra-Low Sulfur Content Fuel.**
- **Stack testing** to verify emission limits are met.
- **Production curtailment** during sulfur recovery unit shutdown.
- **Anchoring approval** for reef protection.
- **Zero discharge** (no muds or cutting discharged).
- **Pipeline corrosion inspection.**
- **Protection** of hard bottoms, pinnacles, and sensitive **biological features.**

**Methane rules** - Recent studies have shown that existing offshore drilling operations in the Gulf of Mexico emit more than double EPA’s previous methane emissions estimates.<sup>28</sup> In June 2022, the Inspector General (IG) found that an offshore company was exceeding venting and flaring requirements, concealed its violations, and manipulated its reporting.<sup>29</sup> The IG reported, “one facility reported venting 36 MCF of gas each day for a period of nearly 2 years, regardless of the production volumes reported. Such consistency is unlikely because gas amounts would naturally fluctuate along with oil production.” BOEM should consider utilizing its waste prevention and/or “necessary and proper” rulemaking authority under OCSLA to restrict venting and flaring.<sup>30</sup> BSEE should enhance oversight and inspections to prevent polluters from cheating and ensure they pay their fair share or take steps to reduce their pollution

## **AFTER LEASES ARE OFFERED**

**A climate screen option for OCS leasing and drilling decisions** - BOEM should adopt regulations that implement a climate screen to require that issuance and development of oil and gas leases conform with U.S. climate goals. These regulations would be consistent with similar components of onshore oil and gas proposals now before the administration. As with onshore leasing, DOI has discretion under OCSLA to

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<sup>28</sup> <https://pubs.acs.org/doi/10.1021/acs.est.0c00179>

<sup>29</sup> <https://www.doi.gov/reports/management-advisory/improvements-needed-bureau-safety-and-environmental-enforcements>

<sup>30</sup> See 43 U.S.C. § 1344(a).

consider protection of the environment, including climate impacts, most immediately<sup>31</sup> in its decisions whether to issue leases, authorize drilling, and in considering whether to suspend or cancel leases already issued.

DOI should promulgate regulations which define how DOI will exercise the discretion it has always had to decide whether it can issue an offshore lease —discretion the IRA only minimally affected by requiring only one lease be issued. The regulations should ensure that DOI issues leases only where doing so is consistent with achieving climate goals, considering existing leases and operations on those leases and future operations on any new lease issued. The regulations can also inform decisions about any production on leases already issued or that may result from future sales, including whether to suspend or cancel leases where production is inconsistent with climate goals.

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<sup>31</sup> A climate screen would also apply at the earlier stages of the OCSLA process discussed above: as a factor as DOI considers whether or how much leasing to include in a five-year program or in subsequently determining whether to offer any individual lease sale proposed in that program.

**From:** Amy Trice <atrice@oceanconservancy.org>

**To:** "Morton, Laura (WDC)" <LMorton@perkinscoie.com>, "Carr, Megan E" <megan.carr@boem.gov>, Ruth Perry <ruth.perry@shell.com>, "Babb-Brott, Deerin S. EOP/OSTP" <(b) (6)> Shannon Stewart <sstewart@invenergy.com>

**Cc:** Josh Kaplowitz <JKaplowitz@cleanpower.org>, Aideen Chapman <achapman@cleanpower.org>, Kisha James <kjames@cleanpower.org>, "Boling, Edward (Ted) (WDC)" <TedBoling@perkinscoie.com>

**Subject:** [EXTERNAL] RE: Session Planning Call for BOEM Marine Spatial Planning Panel

**Date:** Fri, 7 Oct 2022 20:58:39 +0000

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Ideas I shared directly with Laura with caveat that this was my odd assortment of thoughts. Lovely catching up with you all today.

I like the idea of framing that there has been existing work on ocean planning in a number of contexts over the years (Northeast and Mid Atlantic Ocean Plans, various state plans) but for the most part the process of advancing offshore wind has largely run parallel to that of developing ocean plans. Because we have not taken on a comprehensive approach to spatial planning, we are now seeing interest and desire for this in various contexts: PEIS for NY Bight, request from conservation groups for a PEIS upfront in NEPA context, Pacific Fishery Management Council setting up a Marine Planning committee, USCG additional PARS studies. I think you could even argue that the transmission discussions and bills in Congress asking for regional studies on transmission all point to a desire and need for a more comprehensive approach. Couple this with ongoing marine mammal, fisheries, maritime commerce, DOD interests/needs, and need to adapt science surveys and you start to see a real need for this to happen if offshore wind is going to advance post path forward/30 gigawatt by 2030 leases.

We should be clear in our panel that there is no intention of slowing down current 30 gigawatt by 2030 leases but to de-risk future investment and find the best outcomes for both wind and the ocean – comprehensive planning will be critical. This can take a lot of forms and we do not have to have a specific national plan with lines on a map, but we do need to get to a point where agencies are engaging earlier with one another in decision-making, states and Tribes are brought into the conversation earlier, and all regions have the data/information to make informed decisions (can highlight specific recommendations from our wind report). A more robust Northeast Ocean Data Portal but national in focus? OPC has a role in the early, interagency engagement and with states and Tribes (especially now with the Permitting Council part of this). A national sustainable ocean plan is committed to by this administration – can this be a start on how to balance and advance co use? Whatever the solution, it cannot just be that offshore wind wins out and is permitted at the expense of everything else. BOEM has a mission and mandate to site clean energy only but there are other equities and interests out in the ocean. Discussions across all agencies with their missions and mandates is needed to have a vision for how we move forward that maximizes wind, transmission, green hydrogen (?), and all the other existing uses.

Do not want to go too far down this road but the cleanest way to do this would be if there was congressional direction/legislation. Politically that will likely never happen but in the absence of that, we can move forward with regions in different places along a continuum taking this approach on.



---  
Amy Trice  
Director, Ocean Planning  
Ocean Conservancy  
Phone: 202.280.6234

---

**From:** Morton, Laura (WDC) LMorton@perkinscoie.com  
**Sent:** Tuesday, September 27, 2022 7:49 PM  
**To:** Carr, Megan E megan.carr@boem.gov ; Ruth Perry ruth.perry@shell.com ; Babb Brott, Deerin S EOP/OSTP  
<(b) (6)> Amy Trice <atrice@oceanconservancy.org>; Shannon Stewart  
sstewart@invenergy.com  
**Cc:** Josh Kaplowitz <JKaplowitz@cleanpower.org>; Aideen Chapman <achapman@cleanpower.org>; Kisha James  
kjames@cleanpower.org ; Boling, Edward (Ted) (WDC) TedBoling@perkinscoie.com  
**Subject:** RE: Session Planning Call for BOEM Marine Spatial Planning Panel

Hi everyone:

I'm looking forward to our discussion tomorrow morning. In advance of the call (though recognizing the lateness of the hour), I thought it would be helpful to provide a few framing notes and possible questions for the panel, which we can discuss tomorrow. These of course are subject to your comfort level and input.

Broadly, my goals for the panel are as follows.

1. Learn more about the role of the Ocean Policy Committee, its 2022-2023 Action Plan and opportunities for the OPC and subcommittees to partner with agencies, regional ocean partnerships, and stakeholders to deconflict competing ocean uses.
2. Hear the panelists' thoughts on using comprehensive ocean planning and governance as a mechanism to reduce conflicts and deconflict competing uses (e.g., the voluntary plans developed for the Northeast Ocean Plan and the Mid-Atlantic Ocean Plan under the National Ocean Policy or the SAMP utilized in siting the Block Island project)
3. Hear a variety of perspectives on opportunities to use a programmatic approach to permitting, with tiered environmental review of offshore wind projects, and whether it will increase the efficiency and effectiveness of agency authorizations.
4. Understand offshore wind industry perspectives on the benefits or challenges of taking a programmatic approach. Would this be more beneficial for certain regions, e.g., the Atlantic, which already has projects under development, versus areas where leases have not yet occurred, such as the Gulf of Mexico, California, Central Atlantic, or the Gulf of Maine?
5. Learn from BOEM about its goals for the first ever regional programmatic environmental impact statement for the New York Bight. What is BOEM's perspective on applying a similar regional approach to other areas of the country?
6. Learn more from BOEM about the newly announced approach to improving processes for identifying future offshore wind energy that will be applied to ongoing planning efforts in the Gulf of Mexico, Central Atlantic and Gulf of Maine, and off the Oregon coast

Throwing out below some possible questions in no particular order. I've added a couple folks' names in each question as a starting (but not ending) point. For some, you'll see that multiple names are listed because, to be honest, you all could answer all of the questions!

- a. What lessons could be learned from programmatic approaches to onshore development, e.g., the Solar Programmatic Environmental Impact Statement. (Shannon)
- b. How about lessons from the programmatic approach to NEPA for offshore O&G? Is this translatable to the offshore wind environment where technology is constantly evolving? (Ruth)
- c. Are there opportunities for the OPC to play a greater role in the deconfliction of existing uses? What about data needs and tools and resources to support decision-making? (Deerin, Amy)
- d. Would upfront marine spatial planning (e.g., the RI SAMP) advance the ball or are BOEM's existing processes sufficient to deconflict lease areas? What advantage could such planning ultimately provide? Disadvantages (Deerin, Amy, Megan)
- e. What role could regional ocean partnerships provide in informing pre-planning consultation and site assessments? To what extent is there the opportunity for BOEM, NOAA, USCG and other federal agencies to partner with these ROPs? (Amy, Ruth, Megan)
- f. Some organizations have argued that such a programmatic approach should be taken in advance of a lease sale, or even in advance of designating of a Wind Energy Area Pros and cons? (all)
- g. Given the number of planned lease sales and COPs under review, how is BOEM addressing this challenge? Does BOEM have sufficient resources to tackle the upcoming onslaught of projects and reach the Administration's goals? (Megan)
- h. How will BOEM's new planning approach to impact the timeframe for issuing leases in the Gulf of Mexico, Central Atlantic, Gulf of Maine, and Oregon? To what extent does BOEM see this process as resolving the current concerns raised by the fishing and environmental communities and current litigants? Would this approach preclude the need (or desire) for BOEM to conduct a regional PEIS in these areas? (Megan)
- i. What opportunities are there for other agencies, including NOAA and FWS, to take a programmatic approach to consultations? (all)
- j. In the offshore wind context, many would argue that we are in an urgent race against time to address climate change. So in this context, do you have views about the appropriate balance between comprehensive and typically time-consuming environmental assessment and expediting development of OSW? (all)

That's it for tonight! Look forward to iterating on this tomorrow.

Best,

Laura

**Laura Morton | Perkins Coie LLP**

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-----Original Appointment-----

**From:** Kisha James [kjames@cleanpower.org](mailto:kjames@cleanpower.org)

**Sent:** Tuesday, September 27, 2022 9:06 AM

**To:** Kisha James; Morton, Laura (WDC); Carr, Megan E; Ruth Perry; Babb-Brott, Deerin S. EOP/OSTP; Amy Trice; Shannon Stewart

**Cc:** Josh Kaplowitz; Aideen Chapman

**Subject:** Session Planning Call for BOEM Marine Spatial Planning Panel

**When:** Wednesday, September 28, 2022 9:00 AM-9:45 AM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Microsoft Teams Meeting

#### Agenda

Speaker introductions

Overview of the session timing, location, and speaker info

Discussion on the session format, content and themes to cover during the discussion

Next steps?

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**From:** Amy Trice <atrice@oceanconservancy.org>

**To:** "Carr, Megan E" <megan.carr@boem.gov>, "Morton, Laura (WDC)" <LMorton@perkinscoie.com>, "Perry, Ruth L SEPCO-IGN/R/S" <ruth.perry@shell.com>, "Babb-Brott, Deerin S. EOP/OSTP" <(b) (6)> "Stewart, Shannon" <SStewart@invenergy.com>

**Subject:** RE: [EXTERNAL] ACP Photos..

**Date:** Thu, 3 Nov 2022 21:10:32 +0000

**Inline-Images:** image001.png

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Thanks for sharing, Laura It was great being on a panel with you all and look forward to talking ways to keep the conversation going.

---

Amy Trice  
Director, Ocean Planning  
Ocean Conservancy  
Phone: 202.280.6234

---

**From:** Carr, Megan E megan.carr@boem.gov

**Sent:** Thursday, November 3, 2022 12:36 PM

**To:** Morton, Laura (WDC) LMorton@perkinscoie.com ; Amy Trice atrice@oceanconservancy.org ; Perry, Ruth L SEPCO-IGN/R/S <ruth.perry@shell.com>; Babb-Brott, Deerin S. EOP/OSTP <(b) (6)> Stewart, Shannon SStewart@invenergy.com

**Subject:** Re: [EXTERNAL] ACP Photos..

Thank you, Laura I think everyone looks great and completely engaged, well done again team! And yes, always looking forward to keeping the conversation going

Thank you,

**Megan Carr, PhD, CPG**

Chief, Office of Strategic Resources

Bureau of Ocean Energy Management

U.S. Department of Interior

Field Special Assistant to the Secretary

DOI Region 2 South Atlantic/Gulf

Pronouns: she, her, hers

Mobile: (202) 294-3998



---

**From:** Morton, Laura (WDC) <[LMorton@perkinscoie.com](mailto:LMorton@perkinscoie.com)>  
**Sent:** Thursday, November 3, 2022 11:49 AM  
**To:** Carr, Megan E <[megan.carr@boem.gov](mailto:megan.carr@boem.gov)>; Amy Trice <[atrice@oceanconservancy.org](mailto:atrice@oceanconservancy.org)>; Perry, Ruth L SEPCO-IGN/R/S <[ruth.perry@shell.com](mailto:ruth.perry@shell.com)>; Babb-Brott, Deerin S. EOP/OSTP <(b) (6)> Stewart, Shannon <[SStewart@invenenergy.com](mailto:SStewart@invenenergy.com)>  
**Subject:** [EXTERNAL] ACP Photos..

Hi everyone:

So...Apparently the professional photographer failed to take pictures of our panel! But this is what they shared.

I feel so slighted!

Thanks again for your help and let's figure out how to continue the conversation as Ruth suggested, perhaps through Perkins' hosted events.

Talk to folks soon.

Best,

Laura

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Michelle Myers <MMyers@biologicaldiversity.org>, Dustin Renaud <dustin@healthygulf.org>

**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

**Date:** Mon, 12 Apr 2021 22:57:40 +0000

**Inline-Images:** ~WRD0005.jpg

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Hit send too early!

The run-of-show is so exciting with that line-up of speakers! I have a few follow-up questions:

- 1) Will there be a Q&A period with Amanda, or just her presentation?
- 2) Will slides be helpful or just her speaking?
- 3) Is there an expectation for Amanda to remain in a listening role for the entirety of the program? I absolutely want to, just want to manage her time expectations.
- 4) Is there an expectation that the BSEE representative will have a speaking role, or just listen?

Thanks again for all your organizing, I am looking forward to participating in the event.

Peace,

Marissa

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Monday, April 12, 2021 6:52 PM

**To:** Michelle Myers <MMyers@biologicaldiversity.org>; Dustin Renaud <dustin@healthygulf.org>

**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Great, I will let Director Lefton know about signing on early and hopefully all will work out. She is a witness at an EMR hearing directly before, but we're hoping the event will end between 3:30 and 4:00 to give her a break and allow her to sign on early.

Yes, her e-mail is Amanda.Lefton@boem.gov.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Michelle Myers <MMyers@biologicaldiversity.org>  
**Sent:** Monday, April 12, 2021 5:29 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Dustin Renaud <dustin@healthygulf.org>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,

[Here is the draft run of show](#) Is it possible to get on a few moments early? We are doing sound check before the 4:30 pm start of the forum. Is it better to trouble shoot before the audience starts to arrive. I would expect to have folks on the line around 4:25pm, so maybe a 4:20 sound check? Then panelists can go off camera until their speaking part

What is the best email address to be invite Ms. Lefton to join Zoom as a panelist is it [amanda.lefton@boem.gov](mailto:amanda.lefton@boem.gov)? The links are distinct so, I would send you your own if you were going to say a few words or want to appear on the screen, non panelists are all off camera. Did you want to introduce yourself, or just be on as an observer?

Thank you for the BOEM contact. I will reach out.

Best Regards,  
Michelle

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Monday, April 12, 2021 4:22 PM  
**To:** Dustin Renaud <dustin@healthygulf.org>  
**Cc:** Michelle Myers <MMyers@biologicaldiversity.org>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Hello Michelle and Dustin,

Just confirming that we can finalize 4:30 p.m. ET for Director Lefton and myself. BSEE is also interested in attending, and here's the POC:

**TJ Broussard**

Bureau of Safety and Environmental Enforcement Gulf of Mexico OCS Region  
*Regional Environmental Officer - Office of Environmental Compliance*  
Phone: [504-736-3245](tel:504-736-3245) - Cell: [985-722-7902](tel:985-722-7902) - FAX: [504-736-7500](tel:504-736-7500)

Please include me and TJ when you have updated plans and materials to share. Also, to help me and Director Lefton prepare remarks, let us know if there are specific issues or questions you'd like us to address.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Dustin Renaud <dustin@healthygulf.org>  
**Sent:** Thursday, April 8, 2021 8:50 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Michelle Myers <MMyers@biologicaldiversity.org>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

That's great, Marissa

3 30CT/4 30ET works for us We'll send over draft materials as they become available We're hoping to have everyone confirmed by tomorrow, but still have about 4 or 5 outstanding invitations. I'm going to do some personal outreach tomorrow

Thanks for all of your help with this I'm eternally grateful

In solidarity,  
Dustin

On Thu, Apr 8, 2021 at 5:05 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Thanks, Michelle. I want to be respectful of folks on EST, so let's say 4:30 p.m. ET. I will follow up again with BSEE about their attendance.

If you have any new draft materials (schedule, invitation to participate) and details about the purpose of the event and who may attend that you are able to share, that would be very helpful as I need to brief a few folks internally to help prepare the Director.

I'd love to be able to briefly introduce myself, but only need a couple of minutes. I'll plan to be in listening mode most of the time unless I'm responding to questions, of course.

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This is good news

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Was there any interest in staff from BSEE?

We are thinking of inviting select media contacts, but will not be doing a press release for the forum. The forum is part of a broader "Gulf Week of Action", and may be listed on calendar of events given to press Individuals can register to attend the forum and ask questions through the Q &A chat feature, and that will not preclude press



Glad you can be there for the entire forum. Would you like to be on the agenda to make a remark and introduce yourself?

Thank you,  
Michelle

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**Sent:** Wednesday, April 7, 2021 9:03 AM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
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Hello Michelle and Dustin,

I have some good and bad news. The good news is that the speaking and participation request for Director Lefton has been approved. The bad news is that HNR scheduled the hearing for which Director Lefton is a witness for 2:00 p.m. ET on April 20th, which will likely go 2+ hours, and the Director will likely want a short break following.

Is there any flexibility in the schedule for when Director Lefton speaks? I will be able to participate for the full event.

Will the event be open or closed to press?

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Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Tuesday, March 30, 2021 11:22 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

That makes sense Marissa.

We thought the most appropriate invite from EPA would be the environmental justice division. We sent our letter to the general email address listed on the website but really don't know who the contacts are there; perhaps there are seats being filled. The plastics campaign is in conversation with the EPA Region 6 staff about the plastic production work. I am not sure if they would have a role in the offshore extraction realm, but I think some of the speakers will be talking about health impacts, so we may invite them to attend and they can decide.

If you could put some feelers out at BSEE I think that would be very helpful in seeing if there is an opportunity for generative dialogue with the staff, or even if they want to observe they would be welcome to.

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Michelle

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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, March 30, 2021 9:57 AM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Hello Michelle and Dustin,

Director Lefton is still interested in offering some opening remarks, but will likely not be able to stay for the entire event. I will be happy to participate and listen to all the panelists, and perhaps there can be a brief Q&A with the Director while she's there.

As for next steps, there are several layers of review and approval needed for speaking engagements, so I am sharing the details you've given me so far to get that process going. Please don't share or publicize Director Lefton's or BOEM's attendance yet until I have final approval.

BSEE does not yet have any political appointees, but I can ask if someone there is interested in participating. As for EPA, do you have a specific office in mind? I haven't worked with EPA political appointees yet, but can try and find the right name if you know there's a specific office and region, or if you're aiming for the Administrator's office.

Peace,

Marissa

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**Sent:** Monday, March 29, 2021 12:50 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Wonderful thank you Marissa. We were considering also inviting members of BSEE, and the EPA.

Is there anyone in particular from those agencies who you think would be good to include, as a participant even, if not presenting?

Thank you,  
Michelle

---

**From:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Monday, March 29, 2021 11:45 AM  
**To:** Michelle Myers [MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re [EXTERNAL] Information on DWH Anniversary Forum

Thanks for the update, Michelle I will check with the Director and get back to you Depending on the timing, we may have a conflict with April 20th because she has been invited to be a witness for a Congressional hearing that day I should be able to participate regardless

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Monday, March 29, 2021 11:33 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hello Marissa,

After speaking with the planning committee for the forum we would love to have you and Ms. Lefton attend, and would like to invite Me Lefton to make opening remarks. We would like to let other panelists know that their participation is an opportunity to present their understanding of the experience on the ground in the Gulf Coast to officials at BOEM. Please confirm that we are good to bill event in this way by confirming attendance.

Following the format of the forum last week, we could also ask key questions to the panelists, or allow time for you and/ Ms Lefton to ask questions of them directly. Let me know if you would like to have a short call to discuss the format in more detail.

Thank you again for this opportunity to have a more detailed conversation with the Gulf Coast community.

Best Regards,  
Michelle

---

**From:** Michelle Myers  
**Sent:** Thursday, March 25, 2021 4:52 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,

First of all congratulations on a successful forum today.

We really appreciate the offer for either you and/or Director Lefton to speak. I am trying to think through the structure of the panel, moderated Q&A, how to facilitate dialogue between the panelists, and what it would look like to include other agencies. Do you have any suggestions on what would work for you or Director Lefton? Are you willing to take audience questions?

We are convening with local groups at our weekly planning meeting tomorrow. They were thinking of going quite broad and making this a "state of the Gulf" forum, but with the opportunity to speak directly with BOEM officials perhaps we can encourage a more narrow conversation. Dustin and I will talk with the group tomorrow, and confirm this fits their goals for the forum.

Thank you,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Wednesday, March 24, 2021 3:44 PM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thank for this additional information, Michelle. Are you asking if me or Director Lefton is willing to participate on the panel or to give remarks separate from the panel?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Tuesday, March 23, 2021 6:13 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** [dustin@healthygulf.org](mailto:dustin@healthygulf.org) <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** [EXTERNAL] Information on DWH Anniversary Forum

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hello Marissa,

Gulf advocates convened on Friday to discuss the format of the program for the Deepwater Horizon Anniversary Virtual Forum. They would like the forum to focus on the cumulative impacts of fossil fuels, extraction, transport, and processing in the Gulf South, as well as the lingering impacts of the Deepwater Horizon disaster. We are in the process of inviting speakers, but the following people were nominated.

- Monique Verdin of the Houma Nation
- Ms. Sharon Lavigne, Rise St. James
- Wilma Subra, Rike Ott, Dr. Mike Robichaux fishermen from the Gulf affected by the Deepwater Horizon
- Diane Wilson, Fisherfolks in Co-op
- Karen Sokol, Loyola Law
- Juan Mancias of the Carrizo-Comecrudo tribe,
- Yvette Arellano of Frontline Watch or Tejas from Houston,
- John Beard from Port Arthur
- Joanie Steinhaus in Galveston of the Turtle Island Restoration Network
- Fishermen, Vietnamese community fishermen, Black Oystermen Rev. Tryon Edwards Zion Travellers
- Colette Pichon Battle, Gulf Coast Center for Law and Policy
- Kristen Monsel, Center for Biological Diversity expert on offshore drilling safety standards and OCSLA
- Dr. Beverly Wright
- Youth voices from the Sunrise Movement
- Labor representative

The forum will be held over Zoom, on Tuesday, April 20<sup>th</sup> starting at 3pm CT, 4pm ET. It will likely run a little over an hour. We would be happy to consider format recommendations that would allow open dialogue if that is useful for purposes of consultation. Otherwise, I suggest a panel conversation, each speaker presenting for a few moments, followed by a moderated Q&A period at the end. Media may be invited to participate. Let me know if you need any further details.

Thank you,  
Michelle

Michelle Myers  
Oceans Campaigner  
The Center for Biological Diversity  
e: [mmyers@biologicaldiversity.org](mailto:mmyers@biologicaldiversity.org)  
c: (415) 646-6930

--

## Dustin Renaud

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176

**Protect What You Love**

[Redacted]

[Redacted]

[Redacted]

[Redacted]

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Michelle Myers <MMyers@biologicaldiversity.org>, Dustin Renaud <dustin@healthygulf.org>

**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

**Date:** Tue, 13 Apr 2021 21:14:39 +0000

**Inline-Images:** image001.jpg

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Good to know, thanks Michelle.

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Michelle Myers <MMyers@biologicaldiversity.org>

**Sent:** Tuesday, April 13, 2021 5:10 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Dustin Renaud <dustin@healthygulf.org>

**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hey Marissa, one thing we do need is a brief bio and headshot for Amanda. Something that will fit on a slide.

Thanks,  
Michelle

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, April 13, 2021 11:01 AM

**To:** Michelle Myers <MMyers@biologicaldiversity.org>; Dustin Renaud <dustin@healthygulf.org>

**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thanks!

Not sure if you saw these yesterday, but I had a few follow-up questions based on the run-of-show:

- 1) Will there be a Q&A period with Amanda, or just her presentation?
- 2) Will slides be helpful or just her speaking?
- 3) Is there an expectation for Amanda to remain in a listening role for the entirety of the program? I absolutely want to, just want to manage her time expectations.
- 4) Is there an expectation that the BSEE representative will have a speaking role, or just listen?

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**Sent:** Tuesday, April 13, 2021 10 28 AM  
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**Subject:** RE [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,

If she has an assistant who can do the sound check, that would also work

Best,  
Michelle

---

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**Sent:** Monday, April 12, 2021 6:53 PM  
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**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Great, I will let Director Lefton know about signing on early and hopefully all will work out. She is a witness at an EMR hearing directly before, but we're hoping the event will end between 3:30 and 4:00 to give her a break and allow her to sign on early.

Yes, her e-mail is [Amanda.Lefton@boem.gov](mailto:Amanda.Lefton@boem.gov).

Peace,

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Advisor, Bureau of Ocean Energy Management  
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[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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*Regional Environmental Officer - Office of Environmental Compliance*  
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**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
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As for next steps, there are several layers of review and approval needed for speaking engagements, so I am sharing the details you've given me so far to get that process going. Please don't share or publicize Director Lefton's or BOEM's attendance yet until I have final approval.

BSEE does not yet have any political appointees, but I can ask if someone there is interested in participating. As for EPA, do you have a specific office in mind? I haven't worked with EPA political appointees yet, but can

try and find the right name if you know there's a specific office and region, or if you're aiming for the Administrator's office.

Peace,

Marissa

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Monday, March 29, 2021 12:50 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Wonderful thank you Marissa. We were considering also inviting members of BSEE, and the EPA.

Is there anyone in particular from those agencies who you think would be good to include, as a participant even, if not presenting?

Thank you,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, March 29, 2021 11:45 AM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thanks for the update, Michelle. I will check with the Director and get back to you. Depending on the timing, we may have a conflict with April 20th because she has been invited to be a witness for a Congressional hearing that day. I should be able to participate regardless.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Monday, March 29, 2021 11:33 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hello Marissa,

After speaking with the planning committee for the forum we would love to have you and Ms Lefton attend, and would like to invite Me. Lefton to make opening remarks. We would like to let other panelists know that their

participation is an opportunity to present their understanding of the experience on the ground in the Gulf Coast to officials at BOEM. Please confirm that we are good to bill event in this way by confirming attendance.

Following the format of the forum last week, we could also ask key questions to the panelists, or allow time for you and/ Ms. Lefton to ask questions of them directly. Let me know if you would like to have a short call to discuss the format in more detail.

Thank you again for this opportunity to have a more detailed conversation with the Gulf Coast community.

Best Regards,  
Michelle

---

**From:** Michelle Myers  
**Sent:** Thursday, March 25, 2021 4:52 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,

First of all congratulations on a successful forum today.

We really appreciate the offer for either you and/or Director Lefton to speak. I am trying to think through the structure of the panel, moderated Q&A, how to facilitate dialogue between the panelists, and what it would look like to include other agencies. Do you have any suggestions on what would work for you or Director Lefton? Are you willing to take audience questions?

We are convening with local groups at our weekly planning meeting tomorrow. They were thinking of going quite broad and making this a “state of the Gulf” forum, but with the opportunity to speak directly with BOEM officials perhaps we can encourage a more narrow conversation. Dustin and I will talk with the group tomorrow, and confirm this fits their goals for the forum.

Thank you,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Wednesday, March 24, 2021 3:44 PM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thank for this additional information, Michelle. Are you asking if me or Director Lefton is willing to participate on the panel or to give remarks separate from the panel?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Tuesday, March 23, 2021 6:13 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** [dustin@healthygulf.org](mailto:dustin@healthygulf.org) <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** [EXTERNAL] Information on DWH Anniversary Forum

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Marissa,

Gulf advocates convened on Friday to discuss the format of the program for the Deepwater Horizon Anniversary Virtual Forum. They would like the forum to focus on the cumulative impacts of fossil fuels, extraction, transport, and processing in the Gulf South, as well as the lingering impacts of the Deepwater Horizon disaster. We are in the process of inviting speakers, but the following people were nominated.

- Monique Verdin of the Houma Nation
- Ms. Sharon Lavigne, Rise St. James
- Wilma Subra, Rike Ott, Dr. Mike Robichaux fishermen from the Gulf affected by the Deepwater Horizon
- Diane Wilson, Fisherfolks in Co-op
- Karen Sokol, Loyola Law
- Juan Mancias of the Carrizo-Comecrudo tribe,
- Yvette Arellano of Frontline Watch or Tejas from Houston,
- John Beard from Port Arthur
- Joanie Steinhaus in Galveston of the Turtle Island Restoration Network
- Fishermen, Vietnamese community fishermen, Black Oystermen Rev. Tryon Edwards Zion Travellers
- Colette Pichon Battle, Gulf Coast Center for Law and Policy
- Kristen Monsel, Center for Biological Diversity expert on offshore drilling safety standards and OCSLA
- Dr. Beverly Wright
- Youth voices from the Sunrise Movement
- Labor representative

The forum will be held over Zoom, on Tuesday, April 20<sup>th</sup> starting at 3pm CT, 4pm ET. It will likely run a little over an hour. We would be happy to consider format recommendations that would allow open dialogue if that is useful for purposes of consultation. Otherwise, I suggest a panel conversation, each speaker presenting for a few moments, followed by a moderated Q&A period at the end. Media may be invited to participate. Let me know if you need any further details.

Thank you,  
Michelle

Michelle Myers  
Oceans Campaigner  
The Center for Biological Diversity  
e: [mmyers@biologicaldiversity.org](mailto:mmyers@biologicaldiversity.org)  
c: (415) 646-6930

# Dustin Renaud

Communications Director

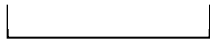
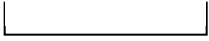
504 525 1528 x214

228 209 2194 (Cell)

PO BOX 2245

New Orleans, LA 70176

**Protect What You Love**



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Michelle Myers <MMyers@biologicaldiversity.org>, Dustin Renaud <dustin@healthygulf.org>

**Cc:** Griselda Olvera <golvera@biologicaldiversity.org>

**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

**Date:** Mon, 19 Apr 2021 19:39:08 +0000

**Inline-Images:** image001.jpg

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Sounds great, thanks for the update, and I think the schedule change is a good idea.

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Michelle Myers <MMyers@biologicaldiversity.org>

**Sent:** Monday, April 19, 2021 3:36 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Dustin Renaud <dustin@healthygulf.org>

**Cc:** Griselda Olvera <golvera@biologicaldiversity.org>

**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hi Marissa,

I followed up with TJ and he said he would not be speaking so I sent him the general registration link, but I am not sure if he has registered. If you both want to appear on camera, then you should use the panelist link. It should be coming directly from Zoom shortly, and will be sent again right before the forum. If you or Amanda do not see that invite before CO, Griselda, who is on this email can assist.

There has been a slight change in the program. Amanda is still near the top of the agenda, but folks felt it was important to ground the day with some local voices first, so Amanda is 4th in the run of show.

Let me know if you or Amanda need anything else.

Thank you,  
Michelle

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Monday, April 19, 2021 2:17 PM

**To:** Michelle Myers <MMyers@biologicaldiversity.org>; Dustin Renaud <dustin@healthygulf.org>

**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Hey Michelle,

I have reminded our team a couple of times about Amanda's headshot and bio, I apologize for the delay.

I have not yet received a panelist registration link, so was wondering if I should register using the general link?

Have TJ and Amanda been sent the panelist registration link?

Thanks for all your organizing, we're looking forward to tomorrow

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Tuesday, April 13, 2021 5:10 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hey Marissa, one thing we do need is a brief bio and headshot for Amanda. Something that will fit on a slide.

Thanks,  
Michelle

---

**From:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Tuesday, April 13, 2021 11:01 AM  
**To:** Michelle Myers [MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org) ; Dustin Renaud [dustin@healthygulf.org](mailto:dustin@healthygulf.org)  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thanks!

Not sure if you saw these yesterday, but I had a few follow up questions based on the run of show

- 1) Will there be a Q&A period with Amanda, or just her presentation?
- 2) Will slides be helpful or just her speaking?
- 3) Is there an expectation for Amanda to remain in a listening role for the entirety of the program? I absolutely want to, just want to manage her time expectations
- 4) Is there an expectation that the BSEE representative will have a speaking role, or just listen?

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Tuesday, April 13, 2021 10:28 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,



If she has an assistant who can do the sound check, that would also work.

Best,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, April 12, 2021 6:53 PM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>; Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Great, I will let Director Lefton know about signing on early and hopefully all will work out. She is a witness at an EMR hearing directly before, but we're hoping the event will end between 3:30 and 4:00 to give her a break and allow her to sign on early.

Yes, her e-mail is [Amanda.Lefton@boem.gov](mailto:Amanda.Lefton@boem.gov).

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Monday, April 12, 2021 5:29 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,

[Here is the draft run of show.](#) Is it possible to get on a few moments early? We are doing sound check before the 4:30 pm start of the forum. Is it better to trouble shoot before the audience starts to arrive. I would expect to have folks on the line around 4:25pm, so maybe a 4:20 sound check? Then panelists can go off camera until their speaking part.

What is the best email address to be invite Ms. Lefton to join Zoom as a panelist - is it [amanda.lefton@boem.gov](mailto:amanda.lefton@boem.gov)? The links are distinct so, I would send you your own if you were going to say a few words or want to appear on the screen, non-panelists are all off camera. Did you want to introduce yourself, or just be on as an observer?

Thank you for the BOEM contact. I will reach out.

Best Regards,  
Michelle

---

**From:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Monday, April 12, 2021 4:22 PM  
**To:** Dustin Renaud [dustin@healthygulf.org](mailto:dustin@healthygulf.org)  
**Cc:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Subject:** Re [EXTERNAL] Information on DWH Anniversary Forum

Hello Michelle and Dustin,

Just confirming that we can finalize 4 30 p m ET for Director Lefton and myself BSEE is also interested in attending, and here's the POC

**TJ Broussard**

Bureau of Safety and Environmental Enforcement - Gulf of Mexico OCS Region

*Regional Environmental Officer - Office of Environmental Compliance*

Phone: [504-736-3245](tel:504-736-3245) - Cell: [985-722-7902](tel:985-722-7902) - FAX: [504-736-7500](tel:504-736-7500)

Please include me and TJ when you have updated plans and materials to share. Also, to help me and Director Lefton prepare remarks, let us know if there are specific issues or questions you'd like us to address.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Sent:** Thursday, April 8, 2021 8 50 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Michelle Myers [MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

That's great, Marissa.

3:30CT/4:30ET works for us. We'll send over draft materials as they become available. We're hoping to have everyone confirmed by tomorrow, but still have about 4 or 5 outstanding invitations I'm going to do some personal outreach tomorrow.

Thanks for all of your help with this. I'm eternally grateful.

In solidarity,  
Dustin

On Thu, Apr 8, 2021 at 5 05 PM Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov) wrote

Thanks, Michelle. I want to be respectful of folks on EST, so let's say 4:30 p.m. ET. I will follow up again with BSEE about their attendance.

If you have any new draft materials (schedule, invitation to participate) and details about the purpose of the event and who may attend that you are able to share, that would be very helpful as I need to brief a few folks internally to help prepare the Director.

I'd love to be able to briefly introduce myself, but only need a couple of minutes. I'll plan to be in listening mode most of the time unless I'm responding to questions, of course.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Thursday, April 8, 2021 3 31 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud [dustin@healthygulf.org](mailto:dustin@healthygulf.org)  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hi Marissa,

This is good news

We have not announced the final time for the event yet, so there is flexibility for the next few days. We initially schedule this trying to accommodate business hours for the Eastern time zone. Given the timing conflict for Ms. Lefton, would it be better to push this back to 4:30 EDT, 3:30 CDT or even 5pm EDT /4pm CDT?

Was there any interest in staff from BSEE?

We are thinking of inviting select media contacts, but will not be doing a press release for the forum. The forum is part of a broader "Gulf Week of Action", and may be listed on calendar of events given to press. Individuals can register to attend the forum and ask questions through the Q & A chat feature, and that will not preclude press.

Glad you can be there for the entire forum. Would you like to be on the agenda to make a remark and introduce yourself?

Thank you,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Wednesday, April 7, 2021 9:03 AM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Hello Michelle and Dustin,

I have some good and bad news. The good news is that the speaking and participation request for Director Lefton has been approved. The bad news is that HNR scheduled the hearing for which Director Lefton is a witness for 2:00 p.m. ET on April 20th, which will likely go 2+ hours, and the Director will likely want a short break following.

Is there any flexibility in the schedule for when Director Lefton speaks? I will be able to participate for the full event.

Will the event be open or closed to press?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers [MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)  
**Sent:** Tuesday, March 30, 2021 11:22 AM  
**To:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE [EXTERNAL] Information on DWH Anniversary Forum

That makes sense Marissa

We thought the most appropriate invite from EPA would be the environmental justice division. We sent our letter to the general email address listed on the website but really don't know who the contacts are there; perhaps there are seats being filled. The plastics campaign is in conversation with the EPA Region 6 staff about the plastic production work. I am not sure if they would have a role in the offshore extraction realm, but I think some of the speakers will be talking about health impacts, so we may invite them to attend and they can decide.

If you could put some feelers out at BSEE I think that would be very helpful in seeing if there is an opportunity for generative dialogue with the staff, or even if they want to observe they would be welcome to.

Best Regards,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, March 30, 2021 9:57 AM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Hello Michelle and Dustin,

Director Lefton is still interested in offering some opening remarks, but will likely not be able to stay for the entire event. I will be happy to participate and listen to all the panelists, and perhaps there can be a brief Q&A with the Director while she's there.

As for next steps, there are several layers of review and approval needed for speaking engagements, so I am sharing the details you've given me so far to get that process going. Please don't share or publicize Director Lefton's or BOEM's attendance yet until I have final approval.

BSEE does not yet have any political appointees, but I can ask if someone there is interested in participating. As for EPA, do you have a specific office in mind? I haven't worked with EPA political appointees yet, but can try and find the right name if you know there's a specific office and region, or if you're aiming for the Administrator's office.

Peace,

Marissa

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Monday, March 29, 2021 12:50 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Wonderful thank you Marissa. We were considering also inviting members of BSEE, and the EPA.

Is there anyone in particular from those agencies who you think would be good to include, as a participant even, if not presenting?

Thank you,  
Michelle

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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, March 29, 2021 11:45 AM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thanks for the update, Michelle. I will check with the Director and get back to you. Depending on the timing, we may have a conflict with April 20th because she has been invited to be a witness for a Congressional hearing that day. I should be able to participate regardless.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Monday, March 29, 2021 11:33 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Hello Marissa,

After speaking with the planning committee for the forum we would love to have you and Ms. Lefton attend, and would like to invite Me. Lefton to make opening remarks. We would to let other panelists know that their participation is an opportunity to present their understanding of the experience on the ground in the Gulf Coast to officials at BOEM. Please confirm that we are good to bill event in this way by confirming attendance.

Following the format of the forum last week, we could also ask key questions to the panelists, or allow time for you and/ Ms. Lefton to ask questions of them directly. Let me know if you would like to have a short call to discuss the format in more detail.

Thank you again for this opportunity to have a more detailed conversation with the Gulf Coast community.

Best Regards,  
Michelle

---

**From:** Michelle Myers  
**Sent:** Thursday, March 25, 2021 4:52 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** RE: [EXTERNAL] Information on DWH Anniversary Forum

Thanks Marissa,

First of all congratulations on a successful forum today.

We really appreciate the offer for either you and/or Director Lefton to speak. I am trying to think through the structure of the panel, moderated Q&A, how to facilitate dialogue between the panelists, and what it would look like to include other agencies. Do you have any suggestions on what would work for you or Director Lefton? Are you willing to take audience questions?

We are convening with local groups at our weekly planning meeting tomorrow. They were thinking of going quite broad and making this a "state of the Gulf" forum, but with the opportunity to speak directly with BOEM officials perhaps we can encourage a more narrow conversation. Dustin and I will talk with the group tomorrow, and confirm this fits their goals for the forum.

Thank you,  
Michelle

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Wednesday, March 24, 2021 3:44 PM  
**To:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Subject:** Re: [EXTERNAL] Information on DWH Anniversary Forum

Thank for this additional information, Michelle. Are you asking if me or Director Lefton is willing to participate on the panel or to give remarks separate from the panel?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Michelle Myers <[MMyers@biologicaldiversity.org](mailto:MMyers@biologicaldiversity.org)>  
**Sent:** Tuesday, March 23, 2021 6:13 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Cc:** [dustin@healthygulf.org](mailto:dustin@healthygulf.org) <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** [EXTERNAL] Information on DWH Anniversary Forum

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Marissa,

Gulf advocates convened on Friday to discuss the format of the program for the Deepwater Horizon Anniversary Virtual Forum. They would like the forum to focus on the cumulative impacts of fossil fuels, extraction, transport, and processing in the Gulf South, as well as the lingering impacts of the Deepwater Horizon disaster. We are in the process of inviting speakers, but the following people were nominated.

- Monique Verdin of the Houma Nation
- Ms. Sharon Lavigne, Rise St. James
- Wilma Subra, Rike Ott, Dr. Mike Robichaux fishermen from the Gulf affected by the Deepwater Horizon
- Diane Wilson, Fisherfolks in Co-op
- Karen Sokol, Loyola Law
- Juan Mancias of the Carrizo-Comecrudo tribe,
- Yvette Arellano of Frontline Watch or Tejas from Houston,
- John Beard from Port Arthur
- Joanie Steinhaus in Galveston of the Turtle Island Restoration Network
- Fishermen, Vietnamese community fishermen, Black Oystermen Rev. Tryon Edwards Zion Travellers
- Colette Pichon Battle, Gulf Coast Center for Law and Policy
- Kristen Monsel, Center for Biological Diversity expert on offshore drilling safety standards and OCSLA
- Dr. Beverly Wright
- Youth voices from the Sunrise Movement
- Labor representative

The forum will be held over Zoom, on Tuesday, April 20<sup>th</sup> starting at 3pm CT, 4pm ET. It will likely run a little over an hour. We would be happy to consider format recommendations that would allow open dialogue if that is useful for purposes of consultation. Otherwise, I suggest a panel conversation, each speaker presenting for a few moments, followed by a moderated Q&A period at the end. Media may be invited to participate. Let me know if you need any further details

Thank you,  
Michelle

Michelle Myers  
Oceans Campaigner  
The Center for Biological Diversity  
e [mmyers@biologicaldiversity.org](mailto:mmyers@biologicaldiversity.org)  
c: (415) 646-6930

## Dustin Renaud

Communications Director

504 525 1528 x214

228 209 2194 (Cell)

PO BOX 2245

New Orleans, LA 70176

**Protect What You Love**

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┆



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Duren, Riley - (rduren)" <rduren@arizona.edu>

**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] Re: [EXT]Introduction

**Date:** Mon, 27 Sep 2021 21:35:26 +0000

**Inline-Images:** image001.jpg

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Great, and yes, we can use Zoom. If you can send the link and any additional background or materials, I can update the calendar invitation for the folks on my end. I'll also send you our list of attendees so you have a sense of who is joining. Will there be others in addition to yourself from Carbon Mapper?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Duren, Riley - (rduren) <rduren@arizona.edu>  
**Sent:** Monday, September 27, 2021 5:29 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: [EXT]Introduction

Hi Marissa, Oct 6 at 4:30 EST works for me. Zoom works better for me so if you can use that I can provide a link.

Riley

---

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Date:** Monday, September 27, 2021 at 1:40 PM  
**To:** Riley Duren <rduren@arizona.edu>  
**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: [EXT]Introduction

**External Email**

Hello Riley,

Does 1:30-2:00 PST (4:30-5:00 EST) on Wednesday, October 6 work for you? If so, I can send a Microsoft Teams invite. The group could also do 2:30-3:00 PST that day, but I prefer to try and not schedule meetings after 5:00 p.m. EST because of child care for some folks.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Duren, Riley - (rduren) <rduren@arizona.edu>  
**Sent:** Monday, September 27, 2021 1 56 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Anna Marie Laura <alaura@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: [EXT]Introduction

Hi, I split my time between LA and Tucson (currently Pacific time for both). Mondays, Tuesdays and Fridays are generally best for me typically with openings at noon on Mon Tues and 11 12 and 1 2 on Fridays I should be relatively free starting this Friday.

Look forward to talking!

Riley

---

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Date:** Monday, September 27, 2021 at 9:45 AM  
**To:** Riley Duren <rduren@arizona.edu>  
**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Re: [EXT]Introduction

**External Email**

Great to e-meet you as well! We're excited to learn more about Carbon Mapper and your work in the Gulf of Mexico.

Since I'm coordinating quite a number of schedules on my end, do you have specific days or times that are better or worse for you in general? Also, what time zone are you in?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Duren, Riley - (rduren) <rduren@arizona.edu>  
**Sent:** Monday, September 27, 2021 12:18 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**Subject:** [EXTERNAL] Re: [EXT]Introduction

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Thanks Mike! Moving you to bcc to spare inbox.

Marissa, good to e-meet you. Please let me know some calendar windows that might work for you. I should be pretty flexible starting next week. By the way, we're about a month away from conducting another series of overflights for platforms in the Gulf of Mexico.

Cheers,

Riley

-----  
Riley Duren  
Chief Executive Officer, Carbon Mapper  
Research Scientist, University of Arizona  
Engineering Fellow, Jet Propulsion Laboratory  
<https://carbonmapper.org>

---

**From:** Michael LeVine <mlevine@oceanconservancy.org>  
**Date:** Monday, September 27, 2021 at 9:03 AM  
**To:** Riley Duren <rduren@arizona.edu>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**Subject:** [EXT]Introduction

**External Email**

Hi Riley,

Hope all is well. As discussed during our call last month, I asked and discovered that there is significant interest at BOEM and BSEE (with the Department of the Interior) in connecting with you.

So, with this email, I am introducing you to Marissa Knodel. Marissa is an advisor to BOEM and has offered to put together the right group for a meeting.

Hope this connection is fruitful, and I look forward to helping in any way I can.

Mike



Michael LeVine  
he/him/hi  
Senior Arctic Fellow  
Juneau, Alaska  
O: 907.723.0136  
[mlevine@oceanconservancy.org](mailto:mlevine@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Laura Esquivel <lesquivel@earthjustice.org>

**Cc:** Brettmy Hardy <bhardy@earthjustice.org>, "kdix@taproot.earth" <kdix@taproot.earth>, Christian Wagley <christian@healthygulf.org>, "Devorah Ancel" <devorah.ancel@sierraclub.org>

**Subject:** Re: [EXTERNAL] thank you for meeting re BOEM's 5 Year Program

**Date:** Tue, 19 Sep 2023 19:21:01 +0000

**Inline-Images:** image002.png

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Thank you very much for the detailed summary of our discussion, and to all of you for taking the time to meet with me and discuss this important issue. I look forward to future engagements!

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Laura Esquivel <lesquivel@earthjustice.org>

**Sent:** Tuesday, September 19, 2023 3:11 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Cc:** Brettmy Hardy <bhardy@earthjustice.org>; kdix@taproot.earth <kdix@taproot.earth>; Christian Wagley <christian@healthygulf.org>; 'Devorah Ancel' <devorah.ancel@sierraclub.org>

**Subject:** [EXTERNAL] thank you for meeting re BOEM's 5 Year Program

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Dear Marissa,

Thank you again for taking the time to speak with us on Friday. As promised, here is a summary of what we discussed as well as our contact information (below and above). Please reach out if you have any additional questions. We look forward to continuing this discussion.

- **Interior does not need to include multiple oil and gas sales in the Gulf as part of the final 5-year Program to fulfill its wind leasing plans** (10 or even 5 oil and gas sales in the 5-year program is far too many). This is because:
  - The IRA only restricts BOEM's ability to issue wind leases, not to hold wind lease sales. Inflation Reduction Act of 2022, P.L. 117-169, § 50265(b)(2) (Aug. 16, 2022) ("The Secretary may not issue a lease for offshore wind development unless . . ." (emphasis added)).

- BOEM's regulations allow the agency to delay issuance of wind leases after holding the sales. 30 C.F.R. § 585.222 (granting broad discretion to accept or reject bids from wind lease sales and control the timing of that process). Any delays will not stall development on wind leases sold because companies are free to do surveying and even to submit their site assessment plan to BOEM before wind leases are issued. 30 C.F.R. § 585.601. (“[A wind lessee] may submit [their] [site assessment plan] prior to lease . . . issuance ”)
  - As a result, BOEM has broad discretion to coordinate the timing of wind lease sales, the issuance of wind leases, and the timing of oil and gas sales to minimize harm from oil and gas leasing
  - Multiple oil and gas sales are thus not necessary to fulfill wind leasing plans.
- **Interior should not include oil and gas sales in the 5-year Program that it intends to cancel later.** While BOEM has the authority to cancel and/or modify lease sales included in the 5 Year Program, see *California v. Watt*, 712 F.2d 584, 588 (D.C. Cir. 1983), some courts (and some in Congress) have bought into the oil industry’s legally incorrect arguments to the contrary and Interior is likely to be faced with lawsuits in those same courts attempting to mandate all oil and gas sales in the Program. Interior should at the very least minimize the number of sales it proposes in the Program, considering that reality
  - **Interior is obligated to describe how oil and gas leasing will *conflict with other uses of the OCS, not just describe those other uses generally.*** 43 U.S.C. § 1344(a)(2)(D) (obligating the Secretary to consider potential conflicts with other uses of the resources are areas) In the Proposed Program, BOEM only described other uses of the OCS, but did not address how leasing will conflict with those uses and how those conflicts will impact Gulf communities In particular, BOEM must address how oil and gas leasing in the 5 Year Program will conflict with offshore wind.

We would be happy to discuss any of these points in more depth at your convenience. We look forward to meeting again to discuss our recommendations once Interior publishes the Final 5-Year Program.

Best wishes,

Kendall Dix, Taproot  
[kdix@taproot.earth](mailto:kdix@taproot.earth)

Christian Wagley, Healthy Gulf  
[christian@healthygulf.org](mailto:christian@healthygulf.org)

Devorah Ancel, Sierra Club  
[devorah.ancel@sierraclub.org](mailto:devorah.ancel@sierraclub.org)

Brett Hardy, Earthjustice  
[bhardy@earthjustice.org](mailto:bhardy@earthjustice.org)

Laura Esquivel, Earthjustice  
[lesquivel@earthjustice.org](mailto:lesquivel@earthjustice.org)

**Laura M. Esquivel** (she/her/ella)  
 Senior Legislative Representative  
 Washington DC Office  
 1001 G St NW Ste 1000  
 Washington DC, 20001  
[lesquivel@earthjustice.org](mailto:lesquivel@earthjustice.org)  
 D 202 667 0045  
 C 202 210 2096



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[twitter.com/earthjustice](https://twitter.com/earthjustice)

**From:** Liz Mering <liz@inletkeeper.org>

**To:** "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>

**Cc:** <marissa.knodel@boem.gov>, "Kendall, James J." <james.kendall@boem.gov>, "Haller, Michael L" <michael.haller@boem.gov>, <raina\_thiele@ios.doi.gov>, <Laura\_Davis@ios.doi.gov>, <tommy\_beaudreau@ios.doi.gov>, <Bryan\_newland@ios.doi.gov>, <tyler.moore@boem.gov>

**Subject:** [EXTERNAL] Request for extension for public comment period re: lease sale 258

**Date:** Mon, 29 Nov 2021 13:35:08 -0900

**Attachments:** LS258\_DEIS\_comment\_deadline\_extension\_Final.pdf

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Good afternoon Director Lefton,

Please see the attached letter submitted on behalf of one federally recognized Tribe and 10 non-profit organizations (that are either based in Alaska or that have members or supporters in Alaska) requesting an extension of the public comment period on the draft Environmental Impact Statement for Lease Sale 258.

Please let me know you have any questions or would like more information regarding this request.

Thank you for your attention to this request.

Liz

--

Elisabeth Mering (she/her)  
Advocacy Specialist  
Cook Inletkeeper  
907.235.3459 (office)  
443-463-1234 (cell)  
[liz@inletkeeper.org](mailto:liz@inletkeeper.org)  
[www.inletkeeper.org](http://www.inletkeeper.org)

I recognize that I work and live on the unceded territories of the Dena'ina and Sugpiaq Peoples.

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copying it and notify sender by reply e mail, so that our records can be corrected

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**NATIVE VILLAGE OF TYONEK \* ALASKA COMMUNITY ACTION ON TOXICS \*  
ALASKA PUBLIC INTEREST RESEARCH GROUP \* CENTER FOR BIOLOGICAL  
DIVERSITY \* COOK INLETKEEPER \* DEFENDERS OF WILDLIFE \* EARTHJUSTICE \*  
FAIRBANKS CLIMATE ACTION COALITION \* FRIENDS OF ALASKA NATIONAL  
WILDLIFE REFUGES \* KACHEMAK BAY CONSERVATION SOCIETY \* NATURAL  
RESOURCES DEFENSE COUNCIL**

November 29, 2021

**VIA ELECTRONIC MAIL**

Amanda Lefton  
Director  
Bureau of Ocean Energy Management  
amanda.lefton@boem.gov

Dear Ms. Lefton,

We respectfully request an extension of the December 13, 2021, deadline to submit comments on the draft environmental impact statement (DEIS) for the proposed oil and gas lease sale in Lower Cook Inlet (Lease Sale 258). An extension of the deadline is particularly warranted given the Bureau of Ocean Energy Management's (BOEM) failure to offer tribal consultations to tribal nations located in the Kodiak region even though an oil spill will likely end up on Kodiak and the surrounding waters. In speaking to fishermen and the public—particularly around Kodiak—many have indicated that they were unaware of the public comment period or the proposed lease sale at all. Additional barriers to public participation are the ongoing COVID-19 global pandemic where Alaska continues to deal with high infection and hospitalization rates and the Thanksgiving holiday. Finally, the revised DEIS includes a new climate change analysis after the original DEIS was rushed through in just over three months. We therefore request a 45-day extension of the comment deadline until January 27, 2022,<sup>1</sup> in order to provide for a full and fair public review of the DEIS in light of the public interest—principally the need to initiate tribal consultations, the lack of adequate notice, the pandemic, the holiday season, and the new climate change analysis.

BOEM prepared a DEIS to evaluate a proposed action to “offer for lease certain OCS blocks located within the federally owned portion of Cook Inlet that may contain economically recoverable oil and gas resources.”<sup>2</sup> Key issues analyzed in the DEIS include impacts to, among

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<sup>1</sup> To the extent that additional tribes, the public, or other groups may request more time, the undersigned groups would agree a longer extension would likely be warranted, particularly if requests are from tribes that have not received consultation opportunities.

<sup>2</sup> BOEM, Cook Inlet Planning Area Oil and Gas Lease Sale 258 in Cook Inlet, Alaska, Draft Environmental Impact Statement at 1 (DEIS).

other things, marine mammals, subsistence or traditional gathering activities, air and water quality, the gillnet fishery, and global climate change.<sup>3</sup>

BOEM is the lead agency responsible for the National Environmental Policy Act (NEPA) process that resulted in the DEIS,<sup>4</sup> and its decision whether to hold the proposed oil and gas lease sale will likely depend in part on the information contained therein.<sup>5</sup> One of the primary goals of NEPA is to afford the public an opportunity to scrutinize information concerning the environmental consequences of proposed actions.<sup>6</sup> Thus, federal agencies need to encourage and facilitate public involvement in decisions which affect the quality of the human environment.<sup>7</sup> Given the new information contained in the analysis of the climate change impacts as well as the uncertainty regarding those analyses included within the DEIS,<sup>8</sup> an extension of the comment deadline will allow for a full public review of the information provided in the DEIS, as well as an opportunity to identify missing, inaccurate, or incomplete information concerning the environmental impacts from the project that could inform BOEM's decision-making.

An extension of the 45-day comment period for the DEIS is particularly warranted given the significant impacts and risks that this project poses to the federally recognized tribes that would be impacted by this action. Although the DEIS indicates that BOEM has offered consultations to Cook Inlet based Tribes and Native Corporations,<sup>9</sup> it fails to include the Eklutna tribe among them, and mentions no efforts to contact the 10 federally recognized sovereign nations in the Kodiak region. BOEM reportedly only offered government to government consultations to "Tribes whose members could be affected by activities related to proposed LS 258." Meaning that BOEM inexplicably determined that Kodiak region sovereign governments could not be impacted by Lease Sale 258. But this assertion is absurd as the spill trajectory models demonstrate the potential for serious impacts on Kodiak. In the case of an oil spill, oil would likely end up in Kodiak's waters—impacting fisheries—or on the shores of

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<sup>3</sup> *Id.* at ii-iv.

<sup>4</sup> *Id.* at I.

<sup>5</sup> See 40 C.F.R. § 1500.1.

<sup>6</sup> *Id.* § 1500.1(b).

<sup>7</sup> See also *Id.* § 1503.1(a)(v) (stating "the agency shall . . . [r]equest the comments of: . . . [t]he public, affirmatively soliciting comments in a manner designed to inform those persons or organizations who may be interested in or affected by the proposed action.").

<sup>8</sup> DEIS at 42, 53 (indicating that BOEM "has included the global analysis in this document as an *initial analysis* and seeks public comment to refine it for use in evaluating LS258" emphasis added).

<sup>9</sup> DEIS at 132-33. Even this list is somewhat concerning. BOEM includes the Cook Inlet Tribal Council (CITC) as an Alaskan Native Tribe. CITC is not a federally recognized tribe but rather a tribal non-profit. See Cook Inlet Tribal Council, About CITC <https://citci.org/about/> (last visited Nov. 10, 2021). BOEM certainly should consult with tribal nonprofits but they cannot stand in the place as tribes.

Kodiak—just like oil did after the *Exxon Valdez* spill in 1989. BOEM must also offer consultations to Native Corporations on Kodiak. If BOEM chooses to proceed without tribal consultation for Kodiak region tribes and corporations, the agency is outright ignoring Executive Order 13175, Secretarial Order 3317, and Joint Secretarial Order 3403, which require that the agency identify and involve “Tribal representatives *early* in the planning process.”<sup>10</sup> The DEIS process must include the opportunity for meaningful government to government consultations.

Additionally, current comment period included the Thanksgiving Holiday and during the continued global pandemic. Alaska’s COVID numbers have only recently started to drop after a large spike of high infection rates and increased hospitalizations.<sup>11</sup> This is particularly problematic in Alaska where the internet in rural communities—including those communities that would be directly impacted—is unreliable. The pandemic forced the hearings to be fully virtual and it is unclear if rural community members from Alaska were able to participate meaningfully in the forthcoming public hearings on zoom. Only through consultation with tribes would BOEM know the best way to foster public involvement in tribal communities. The agency must provide a meaningful opportunity for public engagement.<sup>12</sup>

For the foregoing reasons, we respectfully request that you extend the comment deadline on the Lower Cook Inlet oil and gas lease sale DEIS through January 27, 2022. Thank you for your consideration of this request.

Respectfully submitted,

Justin Trenton  
Environmental Director  
Native Village of Tyonek

Liz Mering  
Advocacy Specialist  
Cook Inletkeeper

Nicole Whittington-Evans  
Alaska Program Director  
Defenders of Wildlife

Alyssa Sappenfield  
Energy Analyst  
Fairbanks Climate Action Coalition

Kristen Monsell  
Oceans Legal Director & Senior Attorney  
Center for Biological Diversity

Eric Grafe  
Attorney  
EarthJustice

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<sup>10</sup> DEIS at 132 (emphasis added).

<sup>11</sup> Annie Berman, [Alaska reports another 9 COVID-19 deaths Wednesday as cases continue trending down](https://www.adn.com/alaska-news/2021/11/10/alaska-reports-another-9-covid-19-deaths-wednesday-as-cases-continue-trending-down/), ANCHORAGE DAILY NEWS, Nov 10, 2021 (available at: <https://www.adn.com/alaska-news/2021/11/10/alaska-reports-another-9-covid-19-deaths-wednesday-as-cases-continue-trending-down/>).

<sup>12</sup> See 40 C.F.R. § 1503.1(c) (stating “agency shall provide for electronic submission of public comments, with reasonable measures to ensure the comment process is accessible to affected persons.”).

David C. Raskin  
President  
Friends of Alaska National Wildlife Refuges

Irene Gutierrez  
Senior Attorney  
Natural Resources Defense Council

Pamala Miller  
Executive Director  
Alaska Community Action on Toxics

Roberta Highland  
President  
Kachemak Bay Conservation Society

Alyssa Sappenfield  
Energy Analyst  
Alaska Public Interest Research Group

CC:

Tommy Beaudreau, United States Deputy Secretary of the Interior  
Laura Daniel Davis, Principal Deputy Assistant Secretary, Department of the Interior  
Raina Thiele, Senior Advisor to the Secretary for Alaska Affairs & Strategic Priorities,  
Department of the Interior  
Tyler Moore, Section Chief Alaska, BOEM  
James Kendall, Regional Director Alaska, BOEM  
Marissa Knodel, BOEM Advisor  
Michael Haller, Tribal & Community Liaison Alaska, BOEM  
Bryan Newland, Interior Department Assistant Secretary for Indian Affairs

**From:** Kendall Dix <kdix@taproot.earth>

**To:** "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>

**Subject:** Slow to respond: Traveling Re: [EXTERNAL] Re: BOEM-Gulf community outreach & engagement

**Date:** Tue, 19 Jul 2022 15:23:39 -0700

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Thanks for reaching out. I'll be out of the office until July 25, but I'll respond as soon as I can.

In solidarity,  
Kendall Dix

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[image: facebook] <<https://www.facebook.com/TaprootEarth>>  
[image: twitter] <<https://twitter.com/taprootearth>>  
[image: instagram] <<https://www.instagram.com/taprootearth/>>  
Kendall Dix

National Policy Director

Taproot Earth

he/him  
(434) 442-0179  
kdix@taproot.earth  
taproot.earth

--

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**From:** Dustin Renaud <dustin@healthygulf.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Stats  
**Date:** Mon, 19 Apr 2021 15:00:48 -0500

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Thanks for sending this my way. We've been working with some folks in D.C. on this. I'm glad it's finally coming out.

Looking forward to seeing and hearing from you tomorrow!

Best,  
Dustin

On Mon, Apr 19, 2021 at 1:20 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hey Dustin,

I know we're past the deadline, but this GAO report just came out about pipelines and decommissioning in the Gulf: <https://www.gao.gov/products/gao-21-293>.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Wednesday, April 14, 2021 11:42 AM  
**To:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Subject:** Re: [EXTERNAL] Stats

Hey Dustin,

Leasing status reports for each region, including leased acres, producing, non-producing, etc., are here: <https://www.boem.gov/oil-gas-energy/leasing/combined-leasing-status-report>

I also could not find public information on our website regarding Rights of Way (ROW) for pipelines or an exact number of platforms, although they are mapped here: <https://www.boem.gov/oil-gas-energy/mapping-and-data>.

Peace,

## Maps and GIS Data | Bureau of Ocean Energy Management

MarineCadastre.gov — This online interactive map viewer has integrated submerged lands information consisting of legal, property ownership (cadastre), physical, biological, ocean uses, and cultural information from multiple agencies in a common reference framework. Users can create, view, and print maps from this free, easy to use viewer, or can directly link these GIS data layers (web map ...

[www.boem.gov](http://www.boem.gov)

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Dustin Renaud <[dustin@healthygulf.org](mailto:dustin@healthygulf.org)>  
**Sent:** Wednesday, April 14, 2021 11:07 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Stats

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Hi Marissa,  
I have a request for stats that you might have readily available.

- How many oil platforms in the Gulf?
- How many miles (or alternate measurement you all use) of pipelines in the Gulf?
- How many leased acres in the Gulf?

We're putting together our written comments and are having a hard time finding these stats. Feel free to send me to a web page where they're published.

Thank you so much!

--

 [Healthy Gulf](#)

 [Healthy Gulf on Facebook](#)



**Dustin Renaud**

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176

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[Healthy Gulf on  
Facebook](#)



## **Dustin Renaud**

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176

**Protect What You Love**



**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "megan.carr@boem.gov" <megan.carr@boem.gov>, "jill.lewandowski@boem.gov" <jill.lewandowski@boem.gov>, "Cook, Karla" <karla.cook@boem.gov>

**Cc:** "travis.annatoyn@boem.gov" <travis.annatoyn@boem.gov>

**Subject:** [EXTERNAL] Thank you

**Date:** Tue, 15 Mar 2022 13:49:17 +0000

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Director Lefton, Dr. Cruickshank, & Team BOEM:

For myself and on behalf of the other participants from the OCS Coalition, thank you for your time last week to discuss key priorities. We are eager to ensure that coastal communities are protected from offshore oil drilling while continuing to meet our energy needs.

The five-year program is vital to meeting the administration's climate goals. An Oceana analysis found that ending new leasing and protecting unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions as well as more than \$720 billion in damages to people, property, and the environment, all while protecting our clean coast economy, which supports around 3.3 million American jobs and \$250 billion in GDP through activities like tourism, recreation, and fishing. The analysis can be found at [www.oceana.org/climatecrisis](http://www.oceana.org/climatecrisis).

The opposition to expanded drilling off our coasts is strong and building by the day. Alliances representing more than 55,000 coastal businesses, almost 400 municipalities and over 2,300 elected officials from both coasts are on the record in opposition, as well as nearly every East Coast and West Coast governor. We hope that [www.stophedrill.org](http://www.stophedrill.org) is a helpful resource – this site details the extensive opposition to offshore drilling.

Thank you again. We look forward to working together with you to protect our oceans and coastal communities.

Sincerely,  
Mike Messmer

**Michael Messmer** | Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA  
**D** +1 202 467 1957 | **M** +1 202 286 0667  
**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** Liz Mering <liz@inletkeeper.org>

**To:** <Amanda.Lefton@boem.gov>, "Kendall, James J." <james.kendall@boem.gov>, Sue Mauger <sue@inletkeeper.org>, Marissa Wilson <marissa@akmarine.org>, <marissa.knodel@boem.gov>

**Subject:** [EXTERNAL] Thank you

**Date:** Wed, 10 Aug 2022 20:22:17 -0800

---

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Director Lefton,

Thank you for taking the time today to meet with our office and some members of our community today to talk about the future of Cook Inlet. I know the request from Inletkeeper along with other frontline community organizations from the Gulf of Mexico submitted a letter today requesting in person hearings and we appreciate your attention to that request.

Inletkeeper and many people in our community will certainly be putting in comments on the Five Year Plan as well as considering the implications of LS 258 on our community.

I hope you had an amazing day out on the water that gave you a true understanding of this place that we call home.

Thank you again and safe travels.

Liz

--

Elisabeth Mering (she/her)

Advocacy Director

Cook Inletkeeper

907.235.3459 (office)

443-463-1234 (cell)

[liz@inletkeeper.org](mailto:liz@inletkeeper.org)

[www.inletkeeper.org](http://www.inletkeeper.org)

I recognize that I work and live on the unceded territories of the Dena'ina and Sugpiaq Peoples.

-----  
This e-mail (including any attachments) may contain information that is private, confidential, or protected by attorney-client or other privilege. If you received this e-mail in error, please delete it from your system without copying it and notify sender by reply e-mail, so that our records can be corrected.  
-----

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Liz Mering <liz@inletkeeper.org>

**Subject:** Automatic reply: [EXTERNAL] Thank you

**Date:** Thu, 11 Aug 2022 04:22:35 +0000

---

Hello and thank you for your e-mail. I am out of the office for work travel in Alaska Monday, August 8th through Friday, August 12th, and may be slow to respond. If urgent, my cell is 202-538-2415.

Peace,

Marissa Knodel

Marissa Knodel

**From:** Bob Shavelson <[bob@inletkeeper.org](mailto:bob@inletkeeper.org)>

**To:** "Knodel, Marissa S" <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Cc:** Liz Mering <[liz@inletkeeper.org](mailto:liz@inletkeeper.org)>

**Subject:** Re: [EXTERNAL] Thank you

**Date:** Thu, 7 Oct 2021 18:21:22 -0800

**Inline-Images:** IMG\_0344.jpg

---

Thanks Marissa.

Really appreciated your comment toward the end - reflected an insight usually missing from BOEM conversations

And yes, please let us know when you get back to Alaska (b) (6)

Take care -

Bob

Cook Inletkeeper  
3734 Ben Walters Lane  
Homer, AK 99603  
cell 907 299 3277  
fax 907.235.4069  
[bob@inletkeeper.org](mailto:bob@inletkeeper.org)  
[www.inletkeeper.org](http://www.inletkeeper.org)

Love Cook Inlet? Make an extra gift to [Cook Inletkeeper](#) when you [PICK CLICK GIVE](#) Or [donate online](#) Together we can protect Alaska's Cook Inlet watershed.

On Thu, Oct 7, 2021 at 4:25 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Thank you Bob for organizing the meeting, it was great to finally "meet" you, and I will definitely let you know next time I'm in Alaska!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Bob Shavelson <[bob@inletkeeper.org](mailto:bob@inletkeeper.org)>

**Sent:** Thursday, October 7, 2021 6:44 PM

**To:** Lefton, Amanda B <[Amanda.Lefton@boem.gov](mailto:Amanda.Lefton@boem.gov)>

**Cc:** Pat Norman <[pnormanvc@hotmail.com](mailto:pnormanvc@hotmail.com)>; John Kvasnikof (b) (6) >; Deborah Williams <(b) (6)>; Liz Mering <[liz@inletkeeper.org](mailto:liz@inletkeeper.org)>; Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Kendall, James J. <[James.Kendall@boem.gov](mailto:James.Kendall@boem.gov)>; Randall, Sharon A <[Sharon.Randall@boem.gov](mailto:Sharon.Randall@boem.gov)>; Haller, Michael L <[Michael.Haller@boem.gov](mailto:Michael.Haller@boem.gov)>; Cook, Karla D. <[Karla.Cook@boem.gov](mailto:Karla.Cook@boem.gov)>

**Subject:** [EXTERNAL] Thank you

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Director Lefton -

Just a quick thank you to you and your team for making the time to meet today.

I especially appreciated your willingness to extend the meeting time at the last second, because I'm confident that screw up came from my end!

We heard some compelling words from Chief John & Chief Pat today, and they made me think about how local folks might have felt when giant tractor tugs towed this towering jack-up drill rig past Namwalek & Port Graham the other day



In any case, thank you again for spending time with us, and we look forward to connecting with you and your Alaska & DC teams in the coming weeks and months ahead.

Yours for Cook Inlet -

Bob Shavelson

Cook Inletkeeper  
3734 Ben Walters Lane  
Homer, AK 99603  
cell 907 299 3277  
fax 907.235.4069  
[bob@inletkeeper.org](mailto:bob@inletkeeper.org)  
[www.inletkeeper.org](http://www.inletkeeper.org)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Kendall Dix <kdix@taproot.earth>, "Parra, Breanna L" <breanna.parra@boem.gov>  
**Subject:** Re: [EXTERNAL] Thank you for an inclusive hearing.  
**Date:** Wed, 28 Sep 2022 19:23:54 +0000

---

Thank you very much for this kind note Kendall, I will pass it along to the team.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Wednesday, September 28, 2022 3:15 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Parra, Breanna L <breanna.parra@boem.gov>  
**Subject:** [EXTERNAL] Thank you for an inclusive hearing.

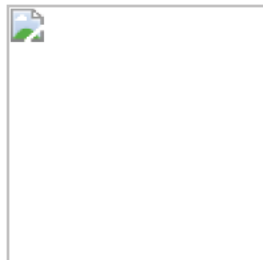
**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi, Marissa and Breanna.

I wanted to thank you all for helping to schedule a virtual hearing for the five year lease plan. We know it requires a lot of work and resources, but we believe it was successful in providing frontline communities with the opportunity to weigh in verbally on such an important issue. We thought the moderators did a great job and really loved that there was Spanish, Vietnamese, and ASL interpretation. We really feel like our concerns were heard about the process, and extending the hearing to make sure everyone was heard showed a commitment to the process. Hopefully next time we can help host an in-person meeting as well. Please pass along our gratitude to Director Lefton.

Thanks,  
Kendall and Colette.

--



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/him

---



■ [\(434\) 442-0179](tel:(434)442-0179)  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](http://taproot.earth)



**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**To:** "Knodel, Marissa S" <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Thanks for your help on five year plan  
**Date:** Mon, 2 Oct 2023 11:41:12 -0400

---

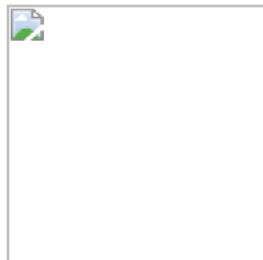
**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi, Marissa.

Just wanted to thank you for meeting with us and listening to our concerns about the five year plan. Privately, I think this is the best outcome we all could have hoped for given the IRA. It's our job to publicly criticize any new drilling, but we know it's out of your control and are appreciative of BOEM scaling back the new drilling to historically low levels. You all have a tough job.

Thanks,  
Kendall

--



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/they

---



■ [\(434\) 442-0179](tel:(434)442-0179)  
■ [kdix@taproot.earth](mailto:kdix@taproot.earth)  
■ [taproot.earth](http://taproot.earth)

**From:** Google Calendar <calendar-notification@google.com>

**To:** <marissa.knodel@boem.gov>, <aherad@taproot.earth>

**Subject:** [EXTERNAL] Updated invitation: Taproot + BOEM @ Thu Jan 19, 2023 10am - 10:30am (EST) (marissa.knodel@boem.gov)

**Date:** Mon, 9 Jan 2023 20:55:55 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

---

**This email has been received from outside of DOI -Use caution before clicking on links, opening attachments, or responding.**

**This event has been updated**

**Changed:** location, conferencing, description

**Join Zoom Meeting**

(b) (5)  
[Redacted]  
[Redacted]

**Join by phone**

(US) +(b) (5)  
passcode: (b) (5)

[Joining instructions](#)

**Joining notes**

Meeting host: kdix@taproot.earth

**Join Zoom Meeting:**

(b) (5)

**Description** CHANGED

(b) (5)

**When**

Thursday Jan 19, 2023 · 10am – 10:30am (Eastern Time - New York)

**Location** CHANGED

(b) (5)

[View map](#)

**Guests**

kdix@taproot.earth - organizer  
aherad@taproot.earth  
marissa.knodel@boem.gov

[View all guest info](#)

**Reply** for marissa.knodel@boem.gov

Yes No Maybe More options

Invitation from [Google Calendar](#)

You are receiving this email because you are an attendee on the event. To stop receiving future updates for this event, decline this event.

Forwarding this invitation could allow any recipient to send a response to the organizer, be added to the guest list, invite others regardless of their own invitation status, or modify your RSVP. [Learn more](#)

**Event:** [EXTERNAL] Updated invitation: Taproot + BOEM @ Thu Jan 19, 2023  
10am 10:30am (EST) (marissa.knodel@boem.gov)

---

**Start Date:** 2023-01-19 15:00:00 +0000

**End Date:** 2023-01-19 15:30:00 +0000

**Organizer:** kdix@taproot.earth <kdix@taproot.earth>

**Location:** <https://taproot-earth.zoom.us/j/81998831834?pwd=ZXg5bHJpcWVUeXRNMtIIZWtlcExEdz09>

**Date Created:** 2023-01-09 20:56:11 +0000

**Date Modified:** 2023-01-09 20:56:11 +0000

**Priority:** 5

**DTSTAMP:** 2023-01-09 20:55:55 +0000

**Attendee:** aherad@taproot.earth <aherad@taproot.earth>; marissa.knodel@boem.gov <marissa.knodel@boem.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Taproot + BOEM

(b) (5)

This event has been updated

Changed: location, conferencing, description

Join Zoom (b) (5)

ID: (b) (5)

passcode: (b) (5)

Join by phone

(US) (b) (5) #>

passcode: (b) (5)

Joining (b) (5)

(b) (5)

Joining notes

Meeting host: kdix@taproot.earth

Join Zoom Meeting:

(b) (5)

Description CHANGED

(b) (5)

When

Thursday Jan 19, 2023 · 10am – 10:30am (Eastern Time - New York)

Location CHANGED

(b) (5)

Guests

kdix@taproot.earth<mailto:kdix@taproot.earth> - organizer

aherad@taproot.earth<mailto:aherad@taproot.earth>

marissa.knodel@boem.gov<mailto:marissa.knodel@boem.gov>

View all guest info<<https://calendar.google.com/calendar/event?>

(b) (5)

(b) (5)

<<https://calendar.google.com/calendar/event?>

(b) (5)

Invitation from Google Calendar<<https://calendar.google.com/calendar/>>

You are receiving this email because you are an attendee on the event. To stop receiving future updates for this event, decline this event.

Forwarding this invitation could allow any recipient to send a response to the organizer, be added to the guest list, invite others regardless of their own invitation status, or modify your RSVP. Learn more<<https://support.google.com/calendar/answer/37135#forwarding>>



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Downes, Nancy" <ndownes@oceana.org>

**Cc:** "Hoskins, Diane" <Dhoskins@oceana.org>, "Davis, Ben" <bdavis@oceana.org>

**Subject:** Re: [EXTERNAL] Your unique panelist link for 2PM Zoom event today

**Date:** Tue, 1 Jun 2021 14:03:15 +0000

**Inline-Images:** image001.png

---

Thanks Nancy!

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Downes, Nancy <ndownes@oceana.org>  
**Sent:** Tuesday, June 1, 2021 9:57 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Hoskins, Diane <Dhoskins@oceana.org>; Davis, Ben <bdavis@oceana.org>  
**Subject:** [EXTERNAL] Your unique panelist link for 2PM Zoom event today

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Looking forward to the National Business Coalition round-table event today at 2:00PM. Re-sending your unique Zoom panelist link so you have it at the top of your inbox. Please do not hesitate to reach out with any urgent questions.

Nancy D  
c. 310-995-7873

---

Hi Marissa Knodel,

You are invited to a Zoom webinar

Date Time: Jun 1, 2021 02:00 PM Eastern Time (US and Canada)

Topic: National Business Coalition Roundtable: Protecting Our Coast and Creating a Thriving Clean Coastal Economy

Join from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to join: (b) (5)





Note: This link should not be shared with others; it is unique to you.

Passcode (b) (5)

Description Join us along with Congressman Mike Levin, Senator Ed Markey, and ocean advocacy business leaders for a roundtable discussion via Zoom that will include an update from local and federal officials, including a representative from the Biden Administration, on plans regarding the future of offshore oil and gas drilling

Business owners from across the country will share personal stories and discuss the importance of protecting the national clean coast economy.

Speakers:

- \* Biden Administration advisor to BOEM
- \* Congressman Mike Levin, California
- \* Senator Ed Markey, Massachusetts
- \* Business Alliance for Protecting the Pacific Coast (BAPPC) - Founding member, Vipe Desai
- \* Florida Gulf Coast Business Coalition (FGCBC) Chair, Robin Miller
- \* Captain Dylan Hubbard, Florida
- \* Mayor Everett "Rett" Newton, North Carolina
- \* Business Alliance for Protecting the Atlantic Coast (BAPAC) - President, Tom Kies
- \* OCEANA Nancy Downes, Diane Hoskins, Beth Lowell

\*Oceana is a nonpartisan organization The participation of any political candidate in this event should not be viewed as a statement endorsing or opposing any candidate. This event is Closed Press.

Or One tap mobile

US (b) (5)

Or Telephone:

Dial(for higher quality, dial a number based on your current location):

US (b) (5)

Toll Free)

Webinar ID: (b) (5)

Participant ID (b) (5)

Passcode: (b) (5)

International numbers available (b) (5)

Nancy Downes | Field Representative, Massachusetts



c. (310) 995-7873

[ndownes@oceana.org](mailto:ndownes@oceana.org) | [usa.oceana.org](http://usa.oceana.org)

**From:** "moniqueh@dscej.org" <moniqueh@dscej.org>

**To:** "Knodel, Marissa S" <marissa.knodel@boem.gov>

**Subject:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

**Date:** Fri, 29 Apr 2022 15:50:05 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

**This email has been received from outside of DOI -Use caution before clicking on links, opening attachments, or responding.**

moniqueh@dscej.org has accepted this invitation.

### **BOEM-Gulf community outreach & engagement**

**When** Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago

**Calendar** Knodel, Marissa S

**Who**

- Knodel, Marissa S - organizer
- moniqueh@dscej.org - creator
- DuFore, Chris M
- dustin@healthygulf.org
- grace@gcclp.org
- Filostrat, John
- kendall@gcclp.org
- Belter, Mark S
- Celata, Michael
- Reuther, Dustin J
- Dalton, Laura M
- Robbins, Laura A
- Lyncker, Lissa A
- Moriarty, Tracey B

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

Participants:

- \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy
- \* Grace Treffinger, Gulf Coast Center for Law and Policy
- \* Monique Hardin, Deep South Center for Environmental Justice
- \* Dustin Renaud, Communications Director, Healthy Gulf
- \* Mike Celata, Regional Director, BOEM Gulf of Mexico
- \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico

- \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico
- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
- \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM
- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico
- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- \* Marissa Knodel, Senior Advisor, BOEM

## Draft Agenda

- \* Introductions
- \* Review purpose and scope of meeting
- \* Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement
- \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming]
- \* Identify next steps and action items

## Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

[Learn More | Meeting option](#)

---

Invitation from [Google Calendar](#)

You are receiving this courtesy email at the account [marissa.knodel@boem.gov](mailto:marissa.knodel@boem.gov) because you are an attendee of this event.

To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

**Event:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Comment:** This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding. moniqueh@dscej.org has accepted this invitation. BOEM-Gulf community outreach & engagement When Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago Calendar Knodel, Marissa S Who • Knodel, Marissa S - organizer • moniqueh@dscej.org - creator • DuFore, Chris M • dustin@healthygulf.org • grace@gcclp.org • Filostrat, John • kendall@gcclp.org • Belter, Mark S • Celata, Michael • Reuther, Dustin J • Dalton, Laura M • Robbins, Laura A • Lyncker, Lissa A • Moriarty, Tracey B Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking. Participants: \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy \* Grace Treffinger, Gulf Coast Center for Law and Policy \* Monique Hardin, Deep South Center for Environmental Justice \* Dustin Renaud, Communications Director, Healthy Gulf \* Mike Celata, Regional Director, BOEM Gulf of Mexico \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico \* John Filostrat, Public Affairs, BOEM Gulf of Mexico \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico \* Marissa Knodel, Senior Advisor, BOEM Draft Agenda \* Introductions \* Review purpose and scope of meeting \* Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming] \* Identify next steps and action items

Microsoft Teams meeting Join on your computer or mobile app Click here to join the meeting Learn More | Meeting options

Invitation from Google Calendar<<https://calendar.google.com/calendar/>> You are receiving this courtesy email at the account marissa.knodel@boem.gov because you are an attendee of this event. To stop receiving future updates for this event, decline this event. Alternatively you can sign up for a Google account at <https://calendar.google.com/calendar/> and control your notification settings for your entire calendar. Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. Learn More<<https://support.google.com/calendar/answer/37135#forwarding>>.

**Date Created:** 2022-04-29 15:50:32 +0000

**Date Modified:** 2022-04-29 15:50:32 +0000

**Priority:** 5

**DTSTAMP:** 2022-04-29 15:50:05 +0000

**Attendee:** Knodel, Marissa S <marissa.knodel@boem.gov>

## **Event:** BOEM-Gulf community outreach & engagement

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**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <marissa.knodel@boem.gov>

**Status:** CONFIRMED

**DTSTAMP:** 2022-04-29 15:50:05 +0000

**Attendee:** moniqueh@dscej.org <moniqueh@dscej.org>

**Date Created:** 2022-04-29 15:35:25 +0000

**Date Modified:** 2022-04-29 15:50:03 +0000

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

### Participants:

- \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy
- \* Grace Treffinger, Gulf Coast Center for Law and Policy
- \* Monique Hardin, Deep South Center for Environmental Justice
- \* Dustin Renaud, Communications Director, Healthy Gulf
- \* Mike Celata, Regional Director, BOEM Gulf of Mexico
- \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico
- \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico
- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
- \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM
- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico
- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- \* Marissa Knodel, Senior Advisor, BOEM

### Draft Agenda

- \* Introductions
- \* Review purpose and scope of meeting
- \* Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement
- \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming]



**From:** "dustin@healthygulf.org" <dustin@healthygulf.org>

**To:** "Knodel, Marissa S" <marissa.knodel@boem.gov>

**Subject:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

**Date:** Fri, 29 Apr 2022 16:03:30 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

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dustin@healthygulf.org has accepted this invitation.

### **BOEM-Gulf community outreach & engagement**

**When** Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago

**Calendar** Knodel, Marissa S

**Who**

- Knodel, Marissa S - organizer
- dustin@healthygulf.org - creator
- DuFore, Chris M
- Filostrat, John
- Celata, Michael
- Belter, Mark S
- grace@gcclp.org
- kendall@gcclp.org
- moniqueh@dscej.org
- Reuther, Dustin J
- Dalton, Laura M
- Robbins, Laura A
- Lyncker, Lissa A
- Moriarty, Tracey B

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

Participants:

- \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy
- \* Grace Treffinger, Gulf Coast Center for Law and Policy
- \* Monique Hardin, Deep South Center for Environmental Justice
- \* Dustin Renaud, Communications Director, Healthy Gulf
- \* Mike Celata, Regional Director, BOEM Gulf of Mexico
- \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico



- \* Lissa Lyncker, Chief of Staff, BOEM Gulf of Mexico
- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
- \* Tracey Moriarty, Deputy Chief of Public Affairs, BOEM
- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- \* Laura Dalton, Resource Evaluation/Reserves Unit, BOEM Gulf of Mexico
- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- \* Marissa Knodel, Senior Advisor, BOEM

## Draft Agenda

- \* Introductions
- \* Review purpose and scope of meeting
- \* Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement
- \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming]
- \* Identify next steps and action items

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**Event:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

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**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

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**Date Created:** 2022-04-29 16:05:44 +0000

**Date Modified:** 2022-04-29 16:05:44 +0000

**Priority:** 5

**DTSTAMP:** 2022-04-29 16:03:30 +0000

**Attendee:** Knodel, Marissa S <marissa.knodel@boem.gov>

## **Event:** BOEM-Gulf community outreach & engagement

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <marissa.knodel@boem.gov>

**Status:** CONFIRMED

**DTSTAMP:** 2022-04-29 16:03:30 +0000

**Attendee:** dustin@healthygulf.org <dustin@healthygulf.org>

**Date Created:** 2022-04-29 15:35:25 +0000

**Date Modified:** 2022-04-29 16:03:29 +0000

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

### Participants:

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- \* Dustin Renaud, Communications Director, Healthy Gulf
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- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
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- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
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\* Identify next steps and action items

---

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[Redacted content]

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**From:** "dustin@healthygulf.org" <dustin@healthygulf.org>

**To:** "Knodel, Marissa S" <marissa.knodel@boem.gov>

**Subject:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

**Date:** Mon, 9 May 2022 17:00:01 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

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dustin@healthygulf.org has accepted this invitation.

### **BOEM-Gulf community outreach & engagement**

**When** Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago

**Calendar** Knodel, Marissa S

**Who**

- Knodel, Marissa S - organizer
- dustin@healthygulf.org - creator
- DuFore, Chris M
- Filostrat, John
- Celata, Michael
- Belter, Mark S
- grace@gcclp.org
- kendall@gcclp.org
- moniqueh@dscej.org
- Matthews, Tershara N
- Reuther, Dustin J
- Dalton, Laura M
- Robbins, Laura A
- Lyncker, Lissa A
- Moriarty, Tracey B
- Hammerle, Kelly K

**Purpose:** To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
- \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico
- \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico
- \* Terhara Matthew, Chief, Emerging Programs, BOEM Gulf of Mexico
- \* Kelly Hammerle, Chief, National Program Development Branch
- \* Marissa Knodel, Senior Advisor, BOEM

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**Event:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

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**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Comment:** This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding. [dustin@healthygulf.org](mailto:dustin@healthygulf.org) has accepted this invitation. BOEM-Gulf community outreach & engagement When Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago Calendar Knodel, Marissa S Who • Knodel, Marissa S - organizer • [dustin@healthygulf.org](mailto:dustin@healthygulf.org) - creator • DuFore, Chris M • Filostrat, John • Celata, Michael • Belter, Mark S • [grace@gcclp.org](mailto:grace@gcclp.org) • [kendall@gcclp.org](mailto:kendall@gcclp.org) • [moniqueh@dscej.org](mailto:moniqueh@dscej.org) • Matthews, Tershara N • Reuther, Dustin J • Dalton, Laura M • Robbins, Laura A • Lyncker, Lissa A • Moriarty, Tracey B • Hammerle, Kelly K Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking. Participants: \* Kendall Dix, Policy Director, Gulf Coast Center for Law and Policy \* Grace Treffinger, Gulf Coast Center for Law and Policy \* Monique Hardin, Deep South Center for Environmental Justice \* Dustin Renaud, Communications Director, Healthy Gulf \* Mike Celata, Regional Director, BOEM Gulf of Mexico \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico \* John Filostrat, Public Affairs, BOEM Gulf of Mexico \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico \* Dustin Reuther, Social Sciences Unit, BOEM Gulf of Mexico \* Mark Belter, Marine Biologist, Environmental Assessment Division, BOEM Gulf of Mexico \* Tershara Matthews, Chief, Emerging Programs, BOEM Gulf of Mexico \* Kelly Hammerle, Chief, National Program Development Branch \* Marissa Knodel, Senior Advisor, BOEM Draft Agenda \* Introductions \* Review purpose and scope of meeting \* Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement \* [Additional agenda items from Healthy Gulf, GCCLP, and Deep South Center forthcoming] \* Identify next steps and action items

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**Date Created:** 2022-05-09 17:04:15 +0000

**Date Modified:** 2022-05-09 17:04:15 +0000



**Priority:** 5

**DTSTAMP:** 2022-05-09 17:00:01 +0000

**Attendee:** Knodel, Marissa S <marissa.knodel@boem.gov>

## **Event:** BOEM-Gulf community outreach & engagement

---

**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <marissa.knodel@boem.gov>

**Status:** CONFIRMED

**DTSTAMP:** 2022-05-09 17:00:01 +0000

**Attendee:** dustin@healthygulf.org <dustin@healthygulf.org>

**Date Created:** 2022-05-09 16:58:33 +0000

**Date Modified:** 2022-05-09 17:00:00 +0000

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

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- \* Overview of BOEM Gulf activities and need for underserved and EJ community outreach and engagement
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- \* Identify next steps and action items



**From:** "moniqueh@dscej.org" <moniqueh@dscej.org>

**To:** "Knodel, Marissa S" <marissa.knodel@boem.gov>

**Subject:** [EXTERNAL] Accepted: BOEM-Gulf community outreach & engagement @ Fri May 13, 2022 12:30pm - 1:30pm (CDT) (Knodel, Marissa S)

**Date:** Mon, 9 May 2022 18:30:08 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

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moniqueh@dscej.org has accepted this invitation.

### **BOEM-Gulf community outreach & engagement**

**When** Fri May 13, 2022 12:30pm – 1:30pm Central Time - Chicago

**Calendar** Knodel, Marissa S

**Who**

- Knodel, Marissa S - organizer
- moniqueh@dscej.org - creator
- DuFore, Chris M
- dustin@healthygulf.org
- grace@gcclp.org
- Filostrat, John
- kendall@gcclp.org
- Belter, Mark S
- Celata, Michael
- Matthews, Tershara N
- Reuther, Dustin J
- Dalton, Laura M
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**Start Date:** 2022-05-13 17:30:00 +0000

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**Date Created:** 2022-05-09 18:34:18 +0000

**Date Modified:** 2022-05-09 18:34:18 +0000

**Priority:** 5

**DTSTAMP:** 2022-05-09 18:30:08 +0000

**Attendee:** Knodel, Marissa S <marissa.knodel@boem.gov>

## **Event:** BOEM-Gulf community outreach & engagement

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**Start Date:** 2022-05-13 17:30:00 +0000

**End Date:** 2022-05-13 18:30:00 +0000

**Organizer:** Knodel, Marissa S <marissa.knodel@boem.gov>

**Status:** CONFIRMED

**DTSTAMP:** 2022-05-09 18:30:08 +0000

**Attendee:** moniqueh@dscej.org <moniqueh@dscej.org>

**Date Created:** 2022-05-09 16:58:33 +0000

**Date Modified:** 2022-05-09 18:30:07 +0000

Purpose: To meet one another and discuss outreach and engagement strategies for underserved and environmental justice communities in the Gulf region for BOEM programs and activities, specifically the development of the next National OCS Oil and Gas Leasing Program, offshore wind, and carbon sequestration rulemaking.

### Participants:

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- \* Dustin Renaud, Communications Director, Healthy Gulf
- \* Mike Celata, Regional Director, BOEM Gulf of Mexico
- \* Laura Robbins, Deputy Regional Director, BOEM Gulf of Mexico
- \* John Filostrat, Public Affairs, BOEM Gulf of Mexico
- \* Chris DuFore, Resource Evaluation/Resource Studies/Regional Analysis Unit, BOEM Gulf of Mexico
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[Redacted content]

---

**From:** Rob Werner <rob\_werner@lcv.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Foreman, Jennafer L" <Jennafer.Foreman@boem.gov>, "McPherson, Sara B" <Sara.McPherson@boem.gov>  
**Subject:** Re: [EXTERNAL] BOEM GOM May meeting details - Bangor, ME  
**Date:** Mon, 24 Apr 2023 16:29:55 +0000

---

Thanks, Marissa -

This helps me a lot in terms of my travel planning.

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
(603) 674-9810

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Monday, April 24, 2023 10:42 AM  
**To:** Rob Werner <rob\_werner@lcv.org>; Foreman, Jennafer L <Jennafer.Foreman@boem.gov>; McPherson, Sara B <Sara.McPherson@boem.gov>  
**Subject:** Re: [EXTERNAL] BOEM GOM May meeting details - Bangor, ME

Hello Rob,

The details and agenda for the meeting will be posted to our website when ready. These task force meetings usually start in the morning around 9:00 a.m. and go until the mid- to late-afternoon.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Rob Werner <rob\_werner@lcv.org>  
**Sent:** Monday, April 24, 2023 8:59 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Foreman, Jennafer L <Jennafer.Foreman@boem.gov>;

McPherson, Sara B <Sara.McPherson@boem.gov>

**Subject:** [EXTERNAL] BOEM GOM May meeting details Bangor, ME

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Hi Marissa, Jenna, and Sara -

I hope your week starts off well.

I'm looking forward to the BOEM GOM Task Force meeting in Bangor, Maine next month. Looking at the BOEM website, I haven't seen detailed agenda information yet...would you be able to tell me when the meeting begins on May 10<sup>th</sup> and ends on May 11th?

Any meeting timing info would be very helpful. Thanks!

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
(603) 674 9810

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**To:** Bray Beltrán <bbrbeltran@oceanconservancy.org>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] BOEM and OC Ocean Justice Meeting

**Date:** Fri, 15 Sep 2023 14:03:55 +0000

**Importance:** Normal

**Attachments:** unnamed

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BOEM and Ocean Conservancy meeting to share ocean justice priorities  
Rachael DeWitt (Ocean Conservancy) is inviting you to a scheduled Zoom meeting.  
Join Zoom Meeting

(b) (5)

Meeting ID: (b) (5)

Passcode: (b) (5)

One tap mobile

(b) (5) # US (Washington DC)

(b) (5) # US

Dial by your location

- (b) (5) US (Washington DC)
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- (b) (5) Toll-free

Meeting ID: (b) (5)

Find your local number (b) (5)

**Event:** [EXTERNAL] BOEM and OC Ocean Justice Meeting

---

**Start Date:** 2023 09 19 14:00:00 +0000

**End Date:** 2023 09 19 14:30:00 +0000

**Organizer:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Location:** (b) (5)

**Class:** X-PERSONAL

**Date Created:** 2023-09-15 14:06:33 +0000

**Date Modified:** 2023-09-15 14:06:33 +0000

**Priority:** 5

**DTSTAMP:** 2023-09-15 14:03:53 +0000

**Attendee:** Bray Beltrán <bbeltran@oceanconservancy.org>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Alarm:** Display the following message 15m before start

| Reminder

This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.

BOEM and Ocean Conservancy meeting to share ocean justice priorities.

Rachael DeWitt (Ocean Conservancy) is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting

(b) (5)

Meeting ID: (b) (5)

Passcode: (b) (5)

One tap mobile

(b) (5) US (Washington DC)

(b) (5) US

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Dial by your location

- (b) (5) US (Washington DC)
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- (b) (5) Toll-free

Meeting ID: (b) (5)

Find your local number: (b) (5)

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**To:** "Mansfield, Laura C" <Laura.Mansfield@boem.gov>, "Cornelison, Meghan E" <meghan.cornelison@boem.gov>, "Bravo, Jessica J" <jessica.bravo@boem.gov>

**Subject:** FW: [EXTERNAL] BOEM and OC Ocean Justice Meeting

**Date:** Mon, 18 Sep 2023 16:25:56 +0000

**Importance:** Normal

**Attachments:** unnamed

---

Accept and attend only if you're available and interested, no obligations! This is just a meet and greet to learn more about Ocean Conservancy's Ocean Justice program and their contribution to the National Ocean Justice Strategy

---

**From:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Sent:** Friday, September 15, 2023 10:04:06 AM (UTC-05:00) Eastern Time (US & Canada)

**To:** Rachael DeWitt <rdewitt@oceanconservancy.org>; Bray Beltrán <bbratlan@oceanconservancy.org>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] BOEM and OC Ocean Justice Meeting

**When:** Tuesday, September 19, 2023 10:00 AM-10:30 AM.

**Where:** (b) (5)

**This email has been received from outside of DOI -Use caution before clicking on links, opening attachments, or responding.**

BOEM and Ocean Conservancy meeting to share ocean justice priorities.

Rachael DeWitt (Ocean Conservancy) is inviting you to a scheduled Zoom meeting

Join Zoom Meeting

(b) (5)

Meeting ID (b) (5)

Passcode (b) (5)

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One tap mobile

(b) (5)

US (Washington DC)

US

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Dial by your location

(b) (5)

US (Washington DC)

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US (Houston)

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US (San Jose)



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(b) (5) 43 8710

Find your local (b) (5)

## **Event:** FW: [EXTERNAL] BOEM and OC Ocean Justice Meeting

---

**Start Date:** 2023 09 19 14:00:00 +0000

**End Date:** 2023 09 19 14:30:00 +0000

**Organizer:** Rachael DeWitt <rdewitt@oceanconservancy.org>

**Location:** (b) (5)

**Class:** X-PERSONAL

**Date Created:** 2023-09-18 16:26:05 +0000

**Date Modified:** 2023-09-18 16:26:05 +0000

**Priority:** 5

**DTSTAMP:** 2023-09-15 14:03:53 +0000

**Attendee:** Mansfield, Laura C <Laura.Mansfield@boem.gov>; Cornelison, Meghan E <meghan.cornelison@boem.gov>; Bravo, Jessica J <jessica.bravo@boem.gov>; Bray Beltrán <bbeltran@oceanconservancy.org>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Alarm:** Display the following message 15m before start

| Reminder

Accept and attend only if you're available and interested, no obligations! This is just a meet-and-greet to learn more about Ocean Conservancy's Ocean Justice program and their contribution to the National Ocean Justice Strategy.

---

From: Rachael DeWitt <rdewitt@oceanconservancy.org>

Sent: Friday, September 15, 2023 10:04:06 AM (UTC-05:00) Eastern Time (US & Canada)

To: Rachael DeWitt <rdewitt@oceanconservancy.org>; Bray Beltrán

<bbeltran@oceanconservancy.org>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

Subject: [EXTERNAL] BOEM and OC Ocean Justice Meeting

When: Tuesday, September 19, 2023 10:00 AM-10:30 AM.

Where: (b) (5)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.



Meeting ID: (b) (5)

Find your local number: (b) (5)

**From:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Automatic reply: [EXTERNAL] Carbon Mapper  
**Date:** Mon, 27 Sep 2021 14:04:37 +0000

---

Thank you for your message. I am out of the office today, so replies may be delayed.

Best,  
Anna-Marie Laura

**From:** Michael LeVine <mlevine@oceanconservancy.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Automatic reply: [EXTERNAL] Carbon Mapper  
**Date:** Mon, 27 Sep 2021 14:37:40 +0000

---

Thank you for your message. I'm out of the office today. If your message is urgent, please call or text me at 907-723-0136.

Thank you,

Mike

**From:** Michael LeVine <mlevine@oceanconservancy.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] Carbon Mapper

**Date:** Mon, 27 Sep 2021 15:58:46 +0000

**Inline-Images:** image001.jpg

---

Hey Marissa,

Just realized I did something embarrassing in my email to you—his name is Riley Duren, not Duren Riley. Sorry about that, and I'll fix it in the introduction. Guess I was moving quickly and not paying enough attention!

Mike

---

Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Ocean Conservancy  
Phone: 907.723.0136

---

**From:** Knodel, Marissa S [mailto:Marissa.Knodel@boem.gov]

**Sent:** Monday, September 27, 2021 6:38 AM

**To:** Michael LeVine

**Subject:** Re: [EXTERNAL] Carbon Mapper

**CAUTION:** This e-mail originated from outside of Ocean Conservancy. Do not click on links or open attachments unless you recognize the sender and know that the content is safe.

Great, thank you!

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Michael LeVine <mlevine@oceanconservancy.org>

**Sent:** Monday, September 27, 2021 10:19 AM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>

**Subject:** RE: [EXTERNAL] Carbon Mapper

Hi Marissa,

Thanks for getting back to us, and definitely no worries on the delay. I'll e-introduce you and Duren.

Mike

---

Michael LeVine  
he/him/his

Senior Arctic Fellow  
Ocean Conservancy  
Phone 907 723 0136

---

**From:** Knodel, Marissa S [mailto:Marissa.Knodel@boem.gov]  
**Sent:** Monday, September 27, 2021 6:04 AM  
**To:** Michael LeVine  
**Cc:** Anna-Marie Laura  
**Subject:** Re: [EXTERNAL] Carbon Mapper

**CAUTION:** This e-mail originated from outside of Ocean Conservancy. Do not click on links or open attachments unless you recognize the sender and know that the content is safe

Hey Mike and Anna-Marie,

Apologies for this taking a while to organize, but there is definitely interest at BOEM and BSEE to arrange a meeting with Carbon Mapper to discuss their Gulf of Mexico work.

Can you provide an introduction or Duren's e-mail so I can set one up?

Thanks again for the contact!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Michael LeVine <mlevine@oceanconservancy.org>  
**Sent:** Thursday, September 9, 2021 4 15 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Cc:** Anna Marie Laura alaura@oceanconservancy.org  
**Subject:** RE: [EXTERNAL] Carbon Mapper

Thanks so much, Marissa. Appreciate the quick response and asking around at BOEM/BSEE. If I remember our conversation, pretty sure the Carbon Mapper folks are connected into EPA, but we can check

Mike

Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Ocean Conservancy  
Phone: 907.723.0136

---

**From:** Knodel, Marissa S [mailto:Marissa.Knodel@boem.gov]  
**Sent:** Thursday, September 09, 2021 12:11 PM  
**To:** Michael LeVine  
**Cc:** Anna-Marie Laura  
**Subject:** Re: [EXTERNAL] Carbon Mapper



**CAUTION:** This e mail originated from outside of Ocean Conservancy Do not click on links or open attachments unless you recognize the sender and know that the content is safe.

Hey Mike and Anna-Marie,

Thanks so much for the email and offer to connect with Carbon Mapper. Give me a few days to review their website and see if there are folks at BOEM and BSEE that may be interested in connecting about their work. I also recommend they try to connect with EPA if they haven't already, given they also have air quality jurisdiction over parts of the OCS.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Michael LeVine mlevine@oceanconservancy.org  
**Sent:** Wednesday, September 8, 2021 9:30 PM  
**To:** Knodel, Marissa S Marissa.Knodel@boem.gov  
**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>  
**Subject:** [EXTERNAL] Carbon Mapper

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Hope this email finds you well. A few weeks ago, my colleague Anna-Marie Laura (who heads our climate program and is copied here) and I had a really interesting conversation with Duren Riley who is the founder and CEO of an organization called Carbon Mapper (<https://carbonmapper.org/>). Carbon mapper is a 501(c)3 organization built in collaboration with NASA's Jet Propulsion Lab and a company called Planet (at least that is what my notes reflect apologies in advance if I slightly mis-describe that). The organization is committed to using remote sensing technology to identify methane and CO2 emitters and to provide that data to decision makers We spent the majority of our conversation talking about the work they have begun in the Gulf of Mexico. As you'll see if you peruse their website, the partnership, technology, and ambition are impressive

Duren has been looking for the right person or people within DOI to talk with about the project Think he is looking to make connections and identify how best to make the work useful to government decision-makers. I offered to make an inquiry and connection if possible, and it seemed like you'd be the right person with whom to start So, would it make sense to introduce him to you and/or are there others in BOEM or DOI more broadly that you think would be better? Thanks in advance

Unrelated (but because I am already writing), any update on timing for the oil and gas review?

Thanks,

Mike



Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Juneau, Alaska  
O: 907.723.0136  
[mlevine@oceanconservancy.org](mailto:mlevine@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Checking in  
**Date:** Mon, 24 May 2021 19:27:56 +0000

---

Thanks for the quick response.  
Maybe the weather forecast will improve in the next couple of days? I hope so. Either way, have a good trip!!

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Monday, May 24, 2021 11:08 AM  
**To:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Subject:** Re: [EXTERNAL] Checking in

Hello Andrew,

We are still working on the Interim Report and the plan is to release it early summer. I would wait to schedule a meeting until after the release.

Thanks for checking in, I am indeed planning to be off the grid backpacking Friday-Monday, though the weather is not looking favorable where I'm headed.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Andrew Hartsig <ahartsig@oceanconservancy.org>  
**Sent:** Monday, May 24, 2021 2:59 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Checking in

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Hi Marissa,

I hope you're doing well and hope things at BOEM are starting to settle into some sort of groove for you. I also hope you can take at least a bit of time for yourself for the upcoming Memorial Day holiday.

I'm not sure if you can share any information on this but: how is comprehensive oil and gas review process is coming along? And any word on when DOI might release its interim report?

We've been operating on the assumption that it makes more sense to hold off on scheduling any meetings with BOEM staff until after the interim report comes out. If that's not the case--if you think it would be useful to chat

about offshore oil and gas (and possibly wind?) sooner please let me know

In the meantime, take good care of yourself

Best,  
Andrew

Andrew Hartsig  
Director, Arctic Program  
Ocean Conservancy  
750 W 2nd Avenue, Suite 206  
Anchorage, AK 99501  
O: 907.885.3057  
[ahartsig@oceanconservancy.org](mailto:ahartsig@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Dustin Renaud <dustin@healthygulf.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Cc:** "amanda\_lefton@boem.gov" <amanda\_lefton@boem.gov>  
**Subject:** [EXTERNAL] Comment Portal v. Email Delivery  
**Date:** Fri, 8 Jul 2022 14:29:51 -0500

---

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Hi Marissa,  
I hope you are doing well.

Today the 90 day comment period opened for the 5 year program, as I'm sure you are well aware.

I was wondering if you all have set up an email address to which we can send comment letters. As you know, the portal system was created to place an undue barrier for individuals and organizations to send in public comments. If your agency has not set up an email account to send comments to, I would request that you do so and share publicly soon.

In solidarity,  
Dustin

--

 [Healthy Gulf](#)

 [Healthy Gulf on Facebook](#)  
 

**Dustin Renaud**

Communications Director

504 525 1528 x214  
228 209 2194 (Cell)  
PO BOX 2245  
New Orleans, LA 70176

**Protect What You Love**

**From:** Bob Shavelson <bob@inletkeeper.org>

**To:** "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>

**Cc:** <marissa.knodel@boem.gov>, <isis.farmer@boem.gov>, "Knodel, Marissa S" <marissa\_knodel@ios.doi.gov>

**Subject:** [EXTERNAL] Cook Inlet & Lease Sale 258

**Date:** Tue, 22 Jun 2021 14:51:43 -0800

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Hi Director Lefton -

I'm sure you're quite busy but hoping you might have 15 minutes to discuss Lease Sale 258 in Lower Cook Inlet, Alaska.

Thanks in advance -

Bob Shavelson

Cook Inletkeeper  
3734 Ben Walters Lane  
Homer, AK 99603  
cell: 907.299.3277  
fax 907.235.4069  
[bob@inletkeeper.org](mailto:bob@inletkeeper.org)  
[www.inletkeeper.org](http://www.inletkeeper.org)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] FW: Biden Admin Announces North Carolina Offshore Wind Lease Sale

**Date:** Tue, 29 Mar 2022 15:22:36 +0000

**Inline-Images:** image001.png

---

Thanks, Diane!

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Monday, March 28, 2022 6:40 PM

**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: Biden Admin Announces North Carolina Offshore Wind Lease Sale

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

FYI, Oceana press release (from Friday) on the the NC Lease Sale announcement

**Biden Admin Announces North Carolina Offshore Wind Lease Sale**

*Oceana Applauds Lease Sale Announcement as Important Step Toward a Clean Energy Future*

**Press Release Date:** March 25, 2022

Today the Biden-Harris administration announced a wind energy auction will take place off the Carolinas on May 11, for 110,091 acres in the Carolina Long Bay offshore wind energy area off North Carolina's coast. This action builds on the Biden-Harris administration's commitment to bringing [30 GW of offshore wind power online by 2030](#) and North Carolina's goal of [2.8 GW of offshore wind power by 2030](#). This marks the Biden-Harris administration's first lease sale off the Carolinas.

Oceana applauded the announcement and released the following statement from campaign director Diane Hoskins:

"Today's announcement is an important step forward for job creation and securing our clean energy future. Oceana applauds President Biden for working to make offshore wind a reality in the United States. Offshore wind is a critical piece of the puzzle when confronting the climate crisis and replacing the dirty fossil fuels that are driving climate change. Today's lease sale announcement will help us meet our clean energy goals, which will support the United States becoming energy independent.

"Since oil and gas prices are set by global markets, Americans are vulnerable to erratic changes in global oil prices that can be manipulated by autocrats like Putin. Worse, instead of helping lower gas prices, Big Oil is raking in billions of dollars in record profits. While the economic risks of relying on dirty fossil fuels are on full display right now, we know that our oceans can be a part of the solution. Advancing clean, domestic offshore wind energy can create jobs, reduce our reliance on fossil fuels,

and help fight climate change. It's great to see the Biden Harris administration tackling this challenge head on. Now it's time for President Biden to follow through on his campaign commitment to protect our oceans and coasts from dirty and dangerous offshore drilling."

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

D 202.467.1948 | C 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] FW: LCV Statement on Biden-Harris Administration Announcements on Big Oil Price Gouging, New Offshore Wind Lease Areas  
**Date:** Tue, 1 Nov 2022 14:12:48 +0000

---

Very grateful, thanks for sharing, David. I will pass along to Amanda and our public affairs team.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Tuesday, November 1, 2022 9:59 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] FW: LCV Statement on Biden-Harris Administration Announcements on Big Oil Price Gouging, New Offshore Wind Lease Areas

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa!

Wanted to be sure to share our statement from last night on your exciting offshore wind announcement, which we paired with the president's great speech yesterday. See below.

I told Director Lefton yesterday that I was [interviewed by Spectrum News 1 in LA](#) about the California lease sale announcement – would you mind sharing it with her? She asked to see it. Spectrum shares their stories across their other local affiliates too – I saw it on their Tampa affiliate's website too, so perhaps it is on others' as well. Including our [statement on the CA lease sale announcement](#) here again as well.

Thanks again for everything you do!

-David

---

**Subject:** LCV Statement on Biden-Harris Administration Announcements on Big Oil Price Gouging, New Offshore Wind Lease Areas

<https://www.lcv.org/article/lcv-statement-on-biden-harris-administration-announcements-on-big-oil-price-gouging-new-offshore-wind-lease-areas/>

**For Immediate Release**  
October 31, 2022

**Contact:** Emily Samsel, [esamsel@lcv.org](mailto:esamsel@lcv.org), 828 713 9647

## **LCV Statement on Biden Harris Administration Announcements on Big Oil Price Gouging, New Offshore Wind Lease Areas**

**Washington D.C.** – In response to President Biden’s press conference calling out oil and gas companies for price gouging consumers and the Bureau of Ocean Energy Management (BOEM)’s announcement today of two new offshore wind energy areas in the Gulf of Mexico off the coasts of Texas and Louisiana, the League of Conservation Voters (LCV) released the following statement from **Senior Vice President of Government Affairs Tiernan Sittenfeld**:

“We’re glad that President Biden didn’t mince words today – it is past time for Big Oil to pay the price for war profiteering. It is abhorrent for the oil and gas industry to enjoy the greatest windfall in history, raking in outsized, immoral profits while our communities and families struggle to pay high gas prices. At the same time, we’re encouraged by the Biden-Harris administration’s continued expansion of affordable clean energy. The two new wind energy areas announced in the Gulf of Mexico today have the potential to provide clean energy to nearly 3 million homes while creating good-paying union jobs, lowering household energy costs, and tackling the climate crisis.

“Thanks to the Biden Harris administration’s leadership, our country is taking action to hold Big Oil accountable while building an affordable clean energy future that works for everyone.”

###

**From:** David Shadburn <dshadburn@lcv.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** RE: [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in  
**Date:** Wed, 4 May 2022 14:02:44 +0000

---

Thanks so much Marissa!! My colleague Lizzy just wrote back to confirm the time. We're working on the exact list of attendees etc. but will share those as soon as we can. Looking forward to it!!

-David

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Wednesday, May 4, 2022 9:17 AM  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Hey David,

Karla (the Director's scheduler) said she followed up with you about times and a location that may work for the group -- the Director is interested in meeting with the group.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Tuesday, May 3, 2022 11:43 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Thank you!!

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, May 3, 2022 11:28 AM  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Thank you -- we have a check-in with her scheduler tomorrow morning, so I have this on my list!

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>

**Sent:** Tuesday, May 3, 2022 11:16 AM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Thanks so much Marissa! I just bumped the request again for Isis, wanted to be sure to let you know I did. I hope we can get something set up for next week! Happy to discuss further by phone if helpful (917) 742 3078

Thanks again!

-David

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Thursday, April 28, 2022 8:16 AM

**To:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>

**Subject:** Re: [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Thanks, David. That should be enough info, and I can follow-up with Isis.

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** David Shadburn <[dshadburn@lcv.org](mailto:dshadburn@lcv.org)>

**Sent:** Wednesday, April 27, 2022 6:56 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** [EXTERNAL] FW: Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly in

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Hi Marissa,

I think you and Leah may have spoken about this already, but I wanted to be sure to flag the official meeting request with Director Lefton I just sent to Isis for LCV's annual fly in on 5/10 11. Let me know if there's anything else that would be helpful for me to provide associated with this request!

Congrats and thanks again on the great announcement today!

David

---

**From:** David Shadburn

**Sent:** Wednesday, April 27, 2022 6:53 PM

**To:** [Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)

**Cc:** [Karla.Cook@boem.gov](mailto:Karla.Cook@boem.gov); Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Sara Chieffo <[Sara\\_Chieffo@lcv.org](mailto:Sara_Chieffo@lcv.org)>

**Subject:** Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Good evening Isis,

My name is David Shadburn, and I'm a Government Affairs Advocate focusing on climate change and clean energy issues with the League of Conservation Voters (LCV), especially offshore wind. LCV along with our 30 affiliated state organizations will be hosting our 14<sup>th</sup> Annual Advocacy Week in Washington, D.C. for in-person meetings **Tuesday, May 10<sup>th</sup> - Wednesday, May 11<sup>th</sup>**. We request a meeting with BOEM Director Amanda Lefton as part of this important week of Climate Action.

Thank you for your leadership centering climate and environmental justice at the heart of BOEM's work. Your focus on renewable energy with the recent record-breaking New York Bight federal offshore wind lease sale that raised \$4.37 billion, and today's announcements of new call areas in the Central Atlantic and off the coast of Oregon, highlight the Bureau's commitment to achieving your goal of deploying 30 gigawatts of offshore wind by 2030.

The actions you've already taken are unprecedented; however, alone they are not enough to address the climate crisis. Russia's unprovoked and brutal invasion of Ukraine is significantly elevating the need to power our economy with clean energy jobs, which is the only long-term solution to tackle both the energy and climate crises. That is why we are meeting with members across the Hill and the Biden administration to push for moving a revised reconciliation package urgently through the U.S. Senate that includes the House passed \$555 billion in clean energy, jobs, and justice investments. We want to meet to talk with BOEM about getting these investments to the President's desk, as well as supporting BOEM's strong actions towards achieving your 30 gigawatts of offshore wind deployment goal by 2030.

Our best window for this meeting is Wednesday, May 11 between 9-11am. We are happy to come to BOEM's office or to host the meeting at the Hamilton Hotel. Senior staff from LCV and leaders from our state affiliates (including MA, ME, MD, NC, NH, NJ, NY, VA, and VT) that travel to D.C. for this meeting will be in attendance.

Thank you, and please let me know if there is any more information you need!

-David

--

David Shadburn (he/him)

Government Affairs Advocate, Climate Change and Clean Energy

League of Conservation Voters

Cell: (917) 742-3078

**From:** David Shadburn <dshadburn@lcv.org>  
**To:** "Cook, Karla D." <Karla.Cook@boem.gov>  
**Cc:** Leah Donahey <ldonahey@lcv.org>, Sara Chieffo <Sara\_Chieffo@lcv.org>, Lizzy Duncan <lduncan@lcv.org>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] RE: Confirmed: In-Person Meeting 05/11/2022 10:15am - 10:45am with BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in  
**Date:** Fri, 6 May 2022 22:20:02 +0000

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Thank you again for setting this meeting up, Karla! I wanted to be sure to share that we are also hoping to briefly discuss the five-year offshore drilling plan as part of this meeting, but our primary focus is still on the reconciliation effort in Congress and BOEM's leadership on offshore wind. Copying Marissa on this note for awareness.

We are also no longer expecting our colleagues from New York, Julie Tighe and Josh Klainberg, to attend.

Have a great weekend, and thank you again!

-David

---

**From:** Cook, Karla D. <Karla.Cook@boem.gov>  
**Sent:** Thursday, May 5, 2022 12:30 PM  
**To:** David Shadburn <dshadburn@lcv.org>  
**Cc:** Leah Donahey <ldonahey@lcv.org>; Sara Chieffo <Sara\_Chieffo@lcv.org>; Lizzy Duncan <lduncan@lcv.org>  
**Subject:** Confirmed: In-Person Meeting 05/11/2022 10:15am - 10:45am with BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Confirmed In-Person Meeting for Wednesday, May 11, 2022, 10:15 a.m. - 10:45 a.m.

Location: The Stewart Lee Udall Department of the Interior Building is at 1849 C Street NW, Washington, DC 20240.

Building Access: Visitor access to the Department of the Interior headquarters is through the C Street entrance lobby.

Visitor Processing Center:

- Visitors must wear a mask when in the Federal building only when the Community Level Posted for the Week is Medium or High.
- BOEM requires masks be worn for all in-person meetings.
- Present a valid, government-issued photo ID.
- All visitors will be subject to security screenings, including bag and parcel checks so please **allow plenty of extra time to get through Security**

Point of Contact: Karla Cook, 202-208-6300

Meeting Location: John Muir Room

The John Muir can be found on the basement level, next door to the DOI Barbershop. Enter the Bison Bistro, go to the hall adjacent to the Rachel Carson room. Follow the hall and the John Muir room will be located on the left. There is a room sign by the door.

Instructions: When Security calls, we will have someone come & meet you to escort you to your meeting location.

BOEM attendees:

Amanda Lefton, Director

Walter Cruickshank, Deputy Director

Isis Farmer, Chief of Staff

Marissa Knodel, Advisor

Karla Cook

Executive Assistant

Office of the Director

Bureau of Ocean Energy Management

U.S. Department of the Interior

202 208 6300

---

**From:** David Shadburn

**Sent:** Wednesday, April 27, 2022 6:53 PM

**To:** [Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)

**Cc:** [Karla.Cook@boem.gov](mailto:Karla.Cook@boem.gov); Leah Donahey <[ldonahey@lcv.org](mailto:ldonahey@lcv.org)>; Sara Chieffo <[Sara\\_Chieffo@lcv.org](mailto:Sara_Chieffo@lcv.org)>

**Subject:** Meeting Request BOEM Director Amanda Lefton - League of Conservation Voters 14th Annual Fly-in

Good evening Isis,

My name is David Shadburn, and I'm a Government Affairs Advocate focusing on climate change and clean energy issues with the League of Conservation Voters (LCV), especially offshore wind. LCV along with our 30 affiliated state organizations will be hosting our 14<sup>th</sup> Annual Advocacy Week in Washington, D.C. for in-person meetings **Tuesday, May 10<sup>th</sup> - Wednesday, May 11<sup>th</sup>**. We request a meeting with BOEM Director Amanda Lefton as part of this important week of Climate Action.

Thank you for your leadership centering climate and environmental justice at the heart of BOEM's work. Your focus on renewable energy with the recent record-breaking New York Bight federal offshore wind lease sale that raised \$4.37 billion, and today's announcements of new call areas in the Central Atlantic and off the coast of Oregon, highlight the Bureau's commitment to achieving your goal of deploying 30 gigawatts of offshore wind by 2030.

The actions you've already taken are unprecedented; however, alone they are not enough to address the climate crisis. Russia's unprovoked and brutal invasion of Ukraine is significantly elevating the need to power our economy with clean energy jobs, which is the only long-term solution to tackle both the energy and climate crises. That is why we are meeting with members across the Hill and the Biden administration to push for moving a revised reconciliation package urgently through the U.S. Senate that includes the House passed \$555 billion in clean energy, jobs, and justice

investments. We want to meet to talk with BOEM about getting these investments to the President's desk, as well as supporting BOEM's strong actions towards achieving your 30 gigawatts of offshore wind deployment goal by 2030

Our best window for this meeting is Wednesday, May 11 between 9 11am We are happy to come to BOEM's office or to host the meeting at the Hamilton Hotel. Senior staff from LCV and leaders from our state affiliates (including MA, ME, MD, NC, NH, NJ, NY, VA, and VT) that travel to D C for this meeting will be in attendance

Thank you, and please let me know if there is any more information you need!

David

--

David Shadburn (he/him)  
Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Moriarty, Tracey B" <Tracey.Moriarty@boem.gov>, "Eng, Lissa M" <Lissa.Eng@boem.gov>, "Gillette, Connie S" <Connie.Gillette@boem.gov>

**Subject:** Fw: [EXTERNAL] FW: NCLCV Statement on BOEM Atlantic Offshore Wind Announcement

**Date:** Thu, 28 Apr 2022 11:59:00 +0000

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Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** David Shadburn <dshadburn@lcv.org>

**Sent:** Wednesday, April 27, 2022 5:15 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: NCLCV Statement on BOEM Atlantic Offshore Wind Announcement

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We may see more statements from our state leagues – I'll flag them as they come in! Also wanted to be sure to flag the politico pro article which includes our quote at the end.

-David

---



April 27, 2022

**NCLCV Statement on [BOEM Atlantic Offshore Wind Announcement](#)**  
*from Montravias King, Clean Energy Campaigns Director*

North Carolinians know the power of the winds blowing across our beautiful coast. Thanks to President Biden, those winds will soon power millions of North Carolina homes and businesses, saving us money on our utility bills, preventing the worst impacts of climate change, and creating family-sustaining careers in the home-grown clean energy supply chain.

###

The [North Carolina League of Conservation Voters \(NCLCV\)](#) is a pragmatic, results-oriented, non-partisan organization whose mission is to protect the health and quality of life for all North Carolinians, with an intentional focus on systematically excluded communities of color. We elect environmental champions, advocate for environmental policies that protect our communities, and hold elected leaders accountable for their decisions. We create a political environment that will protect our natural environment.



# BOEM moves toward opening Oregon, Central Atlantic coasts to offshore wind

BY KELSEY TAMBORRINO | 04/27/2022 02:58 PM EDT

The Bureau of Ocean Energy Management is taking initial steps to lease offshore wind off the coast of Oregon and in the Central Atlantic, the agency announced Wednesday. The action marks the first time the federal government has pursued such action with respect to offshore wind development off the Oregon coast.

The information gained will be used to help determine potential impacts or conflicts before the agency officially designates areas for leasing.

**Details:** BOEM said Wednesday it will publish two calls for information and nominations for possible leasing off the coast of Oregon and in the Central Atlantic. Off the Oregon coast, the agency is requesting information on [two areas](#) — the Coos Bay call area and the Brookings call area — that comprise nearly 1.2 million acres. Both areas begin about 12 nautical miles from the shore at their closest points and are off the coast of central and southern Oregon, respectively, the agency said.

In the Central Atlantic, BOEM is seeking information on [six areas](#) representing about 3.9 million acres. The closest point to the shore is about 20 nautical miles off the Central Atlantic coast.

**Response:** The Biden administration has repeatedly seen concerns over its offshore wind push from the fishing industry, which has decried its process and alleged it has been left out of any meaningful planning. In an emailed response, Annie Hawkins, executive director of the Responsible Offshore Development Alliance, which represents the fishing industry, said Wednesday's announcement was made with only minimal "notice-and-comment" interactions with U.S. seafood harvesters who have relied on the areas for generations.

Heather Mann, executive director of Midwater Trawlers Cooperative based in Newport, Ore., in a statement called it "especially troubling" that BOEM has previously said the process starts as soon as the calls are published, but stated Wednesday that the call areas are a result of robust discussions with stakeholders.

"These two statements are in direct conflict with each other and only increase my concern about the flawed process BOEM is seemingly allowed to operate under," Mann said.

Greens however cheered the announcement Wednesday. [David Shadburn, government affairs advocate for the League of Conservation Voters](#), said the group was "thrilled" to

see the administration continue to make "aggressive moves" toward offshore wind deployment.

**Background:** The Biden administration aims to deploy 30 gigawatts of offshore wind energy by 2030. As part of the effort, BOEM plans to hold [as many as seven new offshore lease sales by 2025](#), including in the Central Atlantic and off the coasts of the Carolinas, California, Oregon and Gulf of Mexico.

Earlier this year, BOEM conducted its first offshore wind auction under the Biden administration. That auction in the New York Bight, an area of shallow water located offshore New York and New Jersey, garnered a record-breaking \$4.37 billion in total winning bids.

**What's next:** The notices are set to be published in the Federal Register on April 29, prompting separate 60-day comment periods.

[View this article online.](#)

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] FW: NCLCV Statement on BOEM Atlantic Offshore Wind Announcement  
**Date:** Thu, 28 Apr 2022 11:59:13 +0000

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Thanks so much again, David!

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Wednesday, April 27, 2022 5:15 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] FW: NCLCV Statement on BOEM Atlantic Offshore Wind Announcement

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April 27, 2022

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[View this article online.](#)

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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: NEW: State Federal Offshore Wind Partnership

**Date:** Thu, 23 Jun 2022 17:51:11 +0000

**Inline-Images:** image002.png; image003.png

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Congrats on this announcement

Here's our statement

"We applaud President Biden's leadership to advance domestic clean energy. Offshore wind has the potential to be a game-changer in the U.S. energy portfolio, making energy prices cheaper, creating jobs, and replacing the fossil fuels that are driving climate change. Our oceans also need strong safeguards for marine life to avoid, minimize, and mitigate the impacts of offshore wind projects. Today, there are just 7 offshore wind turbines in the United States and we're going to need a lot more, done responsibly, to meet our clean energy goals. We're glad to see the Biden Harris administration's efforts to advance responsible, just, equitable solutions to mitigate the dangerous and costly effects of climate change."

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Thomas, Maggie M EOP/WHO (b) (6)

**Sent:** Thursday, June 23, 2022 11:18 AM

**To:** Andrews, Dominic D II EOP/WHO (b) (6)

**Subject:** NEW: State Federal Offshore Wind Partnership



THE WHITE HOUSE  
WASHINGTON

Hello,

Today, the Biden Administration is bringing together 11 Governors from up and down the East Coast to launch a new Federal-State Offshore Wind Partnership to accelerate the growing offshore wind industry. Since Day One, President Biden has taken decisive action to jumpstart the American offshore wind industry. He set a bold goal of deploying 30 gigawatts of offshore wind by 2030 – enough to power 10 million homes with clean energy, support 77,000 jobs, and spur \$12 billion per year in private investment in offshore wind projects. These bold actions have already catalyzed the private sector, and in 2021 alone, investors announced \$2.2 billion in new funding to support this burgeoning industry.

Today at the White House, alongside labor and industry leaders, Governors will join National Climate Advisor McCarthy, Interior Secretary Haaland, Energy Secretary Granholm, Transportation Deputy Secretary Trottenberg, and NOAA Administrator Spinrad to further these ambitious offshore wind goals. Together, they will:

- **Launch the Federal-State Offshore Wind Implementation Partnership** between 11 leading states on the East Coast and the federal government
- **Leverage State and Federal Actions to Strengthen the U.S. Offshore Wind Supply Chain** by endorsing a set of commitments to expand manufacturing, port capabilities, workforce development and more
- **Advance the National Offshore Wind Supply Chain Roadmap** to identify needs and a roadmap to deploying 30 gigawatts of offshore wind by 2030
- **Announce Priority Financing for Offshore Wind Vessels** to support the domestic shipbuilding industry to build specialized installation vessels right here in America

Read more about this exciting announcement [Biden Administration Launches New Federal State Offshore Wind Partnership to Grow American-Made Clean Energy](#) // [Offshore wind boosted as Biden, East Coast governors team up](#) | [AP News](#)

Share the news on Twitter [Gina McCarthy, National Climate Advisor](#)

Please send your supportive statements to (b) (6) (cc'd here)

Thank you,  
Maggie

--

**Maggie Thomas**  
Chief of Staff, Office of Domestic Climate Policy  
The White House

(b) (6)

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Automatic reply: [EXTERNAL] FW: NEW: State Federal Offshore Wind Partnership

**Date:** Thu, 23 Jun 2022 17:51:50 +0000

---

Hello and thank you for your e-mail.

I will be out of the virtual office with limited service on Friday, October 15, and will respond as soon as I am able.

Peace,

Marissa Knodel

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] FW: Oceana Applauds President Biden Offshore Wind Plan as 'Game-Changing'

**Date:** Mon, 29 Mar 2021 23:06:49 +0000

**Inline-Images:** image002.png; image003.jpg

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Thanks so much for the statement and for forwarding, Diane!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Monday, March 29, 2021 4:35 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: Oceana Applauds President Biden Offshore Wind Plan as 'Game-Changing'

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FYI

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Cranor, Dustin <dcranor@oceana.org>

**Sent:** Monday, March 29, 2021 4:32 PM

**To:** OceanaPressReleases <OceanaPressReleases@oceana.org>

**Subject:** Oceana Applauds President Biden Offshore Wind Plan as 'Game-Changing'



**PRESS RELEASE**

1025 Connecticut Ave., NW Suite 200  
Washington, DC 20036

**P** +(202) 833-3900

**F** +(202) 833-2070

**OCEANA.ORG**

**For Immediate Release:** March 29, 2021

**Contact:** Dustin Cranor, 954.348.1314, [dcranor@oceana.org](mailto:dcranor@oceana.org)

## Oceana Applauds President Biden Offshore Wind Plan as ‘Game-Changing’

**WASHINGTON** — Today, the Biden-Harris administration [announced](#) new leasing, funding, and development goals to advance offshore wind energy in the United States while also creating new American jobs. In response, Oceana released the following statement from Jacqueline Savitz, chief policy officer:

“Offshore wind has the potential to be a game-changer in the U.S. energy portfolio, replacing the fossil fuels that are driving climate change. We applaud the Biden-Harris administration helping to make offshore wind a reality in the United States — a necessary step in our climate strategy. Our oceans can and should be an important player in helping to reduce our reliance on fossil fuels. For the U.S. to successfully take full advantage of this unlimited resource that can help solve our climate and energy challenges, Oceana is calling for permanent protections from dirty and dangerous offshore drilling as well. We look forward to working with the Biden-Harris administration to ensure that offshore wind development includes strong protections for ocean habitat, especially for the critically endangered North Atlantic right whale.”

A recent [Oceana analysis](#) finds ending new leasing for offshore oil and gas could prevent over 19 billion tons of greenhouse gas emissions as well as more than \$720 billion in damages to people, property, and the environment. Additionally, the analysis found that ending new leasing will also safeguard the U.S. clean coast economy, which supports around 3.3 million American jobs and \$250 billion in GDP through activities like tourism, recreation, and fishing.

Use the following link to share this statement: <https://bit.ly/3u9ANpt>

*Oceana is the largest international advocacy organization dedicated solely to ocean conservation. Oceana is rebuilding abundant and biodiverse oceans by winning science-based policies in countries that control one-third of the world’s wild fish catch. With more than 225 victories that stop overfishing, habitat destruction, pollution, and the killing of threatened species like turtles and sharks, Oceana’s campaigns are delivering results. A restored ocean means that 1 billion people can enjoy a healthy seafood meal, every day, forever. Together, we can save the oceans and help feed the world. Visit [USA.Oceana.org](http://USA.Oceana.org) to learn more.*

**Dustin Cranor, APR** | Senior Director, Communications



1025 Connecticut Ave. NW, Suite 200, Washington, DC 20036  
P.O. Box 24361, Fort Lauderdale, FL 33307  
**DC** +1.202.341.2267 | **FL** +1.954.348.1314 | **F** +1.202.833.2070  
**E** [dcranor@oceana.org](mailto:dcranor@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)  
**Skype** dustin.i.cranor | **Twitter** dustincranor

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: Oceana Endorses President Biden's Pro-Environment/Climate Budget Proposal

**Date:** Mon, 28 Mar 2022 22:34:51 +0000

**Inline-Images:** image001.png; image002.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

FYI, Oceana release commending the president's budget investments in offshore wind & elimination of fossil fuel tax advantages.

**From:** Cranor, Dustin <dcranor@oceana.org>

**Sent:** Monday, March 28, 2022 6:26 PM

**To:** OceanaPressReleases <OceanaPressReleases@oceana.org>

**Subject:** Oceana Endorses President Biden's Pro-Environment/Climate Budget Proposal



**PRESS RELEASE**

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**FOR IMMEDIATE RELEASE:** March 28, 2022

**Contact:** Dustin Cranor, 954.348.1314 (cell), [dcranor@oceana.org](mailto:dcranor@oceana.org)

## **Oceana Endorses President Biden's Pro-Environment/Climate Budget Proposal**

**WASHINGTON** — President Biden today released his proposed budget for funding the federal government for fiscal year 2023.

Oceana endorsed the budget proposal and released the following statement from Senior Director of Federal Policy Lara Levison:

“Oceana commends the Biden administration for again proposing robust funding for the National Oceanic and Atmospheric Administration (NOAA), the agency with primary responsibility for stewardship of our oceans, at \$6.9 billion for the coming fiscal year. While the fine print is not yet available, Oceana urges Congress and the administration to invest additional funds in strengthening the management of marine fisheries; combating illegal fishing and forced labor by preventing illegal seafood imports from entering U.S. commerce; and improving protections for ocean wildlife, such as the critically endangered North Atlantic right whale. The administration's budget also prioritizes action on climate by proposing to eliminate several tax advantages for fossil fuels and provides increased support to agencies responsible for advancing responsible development of offshore wind

energy. Reducing fossil fuel subsidies will help level the playing field, and increased funding will ensure offshore wind development can proceed in a way that minimizes impacts to ocean wildlife and fisheries.”

Please use this link to share the release: <https://bit.ly/36yPk7K>

*Oceana is the largest international advocacy organization dedicated solely to ocean conservation. Oceana is rebuilding abundant and biodiverse oceans by winning science-based policies in countries that control one-third of the world’s wild fish catch. With more than 225 victories that stop overfishing, habitat destruction, pollution, and the killing of threatened species like turtles and sharks, Oceana’s campaigns are delivering results. A restored ocean means that 1 billion people can enjoy a healthy seafood meal, every day, forever. Together, we can save the oceans and help feed the world. Visit [USA.Oceana.org](http://USA.Oceana.org) to learn more.*

**Dustin Cranor, APR** | Senior Director, Communications



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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] FW: panel recommendations

**Date:** Wed, 17 Mar 2021 16:49:30 +0000

**Inline-Images:** image001.png

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Thanks so much, Diane. Yes, the other email is closed and this is my permanent e-mail address.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Wednesday, March 17, 2021 12:08 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] FW: panel recommendations

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Hi Marissa, resending in case I should have sent to this email.

Thanks, Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Hoskins, Diane

**Sent:** Tuesday, March 16, 2021 6:39 PM

**To:** Knodel, Marissa S <marissa\_knodel@ios.doi.gov>

**Cc:** Messmer, Michael <mmessmer@oceana.org>

**Subject:** panel recommendations

Hi Marissa,

Writing to share some suggested panelists for the forum with a breadth of experience, interest, and geography.

Oceana would of course welcome the opportunity to contribute. The list below includes business leaders, scientists, former industry, military, and local elected officials.

Please let us know if you have any questions.

Thanks, Diane

- Vipe Desai, California
  - Business Alliance for Protecting the Pacific Coast leadership and business owner
  - [vipe@hdxmix.com](mailto:vipe@hdxmix.com)
- Grant Bixby, California
  - Business Alliance for Protecting the Pacific Coast leadership and business owner
  - [grant@bixbyresidential.com](mailto:grant@bixbyresidential.com)
- Robin Miller, Florida
  - CEO Tampa Bay Beaches Chamber & Chair, Florida Gulf Coast Business Coalition
  - [robin@tampabaybeaches.org](mailto:robin@tampabaybeaches.org)
- Dr. Ian MacDonald, Florida
  - Professor of Biological Oceanography at Florida State University, he's respected and his field and is at the same time vocal in the need to stop new drilling and transition away from fossil fuels. Dr. MacDonald was a fantastic panelist for our BP DWH Anniversary Event He helped lead the scientific response to the BP Disaster and has a new paper out (2020) looking at how BP used bad estimates to quantify the scale of the BP Disaster Check that out here: [https://www.researchgate.net/publication/230516162\\_Deepwater\\_disaster\\_How\\_the\\_oil\\_spill\\_estimates\\_got\\_it\\_wrong](https://www.researchgate.net/publication/230516162_Deepwater_disaster_How_the_oil_spill_estimates_got_it_wrong)
  - [imacdonald@fsu.edu](mailto:imacdonald@fsu.edu)
- Phil Odom, Georgia
  - Former commercial fisherman and mariner. He is a respected water resources expert, farmer, and serves on several county and city commissions in Hinesville Georgia
  - (b) (6)
- Patt Gunn, Georgia
  - Local tourism business owner who has international destination recognition. She is also a social organizer and informal leader within the Georgia Gullah Geechee community She is a water rights and black history advocate and her brother, Carl Gilliard, is a state representative and sponsored the state resolution to oppose OSD in 2019 The Gillard family is influential and with long ties to coastal Georgia
  - (b) (6)
- Marilyn Hemingway, South Carolina
  - President Gullah Geechee Chamber of Commerce - She is active in our coalition and can speak about the Gullah Geechee culture and their connection to clean waterways Can also speak about the infrastructure threats to frontline communities.
  - (b) (6)
- Peg Howell, South Carolina
  - Peg is a founding member of SODA, (Stop Offshore Drilling in the Atlantic), and retired petroleum engineer
  - (b) (6)
- Jimmy Carroll, South Carolina
  - Mayor of Isle of Palms was one of the first mayors in SC to speak out against offshore drilling and seismic and his city passed a resolution opposing these activities early on.
  - [jimmy@jimmycarroll.com](mailto:jimmy@jimmycarroll.com)
- Rett Newton, North Carolina
  - Mayor of Beaufort NC, proven champ
  - [e.newton@beaufortnc.org](mailto:e.newton@beaufortnc.org)
- Tom Kies, North Carolina
  - BAPAC President and President of the Carteret County Chamber of Commerce
  - [Tom@nccoastchamber.com](mailto:Tom@nccoastchamber.com)
- Laura Habr, Virginia
  - BAPAC founding board member and Virginia Beach restaurant owner
  - [laura@crocs19thstreetbistro.com](mailto:laura@crocs19thstreetbistro.com)
- Jim Deppe, Virginia
  - Retired Navy Captain who can speak to importance of protecting military testing ranges offshore Virginia and Gulf Now leads the Virginia Coastal Alliance

- [jim@lrnow.org](mailto:jim@lrnow.org)
- Melanie Pursel, Maryland
  - Director of the Worcester County Office of Tourism & Economic Development
  - [mpursel@co.worcester.md.us](mailto:mpursel@co.worcester.md.us)
- Vicki Clark, New Jersey
  - President of Cape May County Chamber
  - [vicki@cmcchamber.com](mailto:vicki@cmcchamber.com)
- Steve Englebright, New York
  - NYS Assembly Member who proposed NYS ban on offshore drilling
  - [engles@nyassembly.gov](mailto:engles@nyassembly.gov)

**Diane Hoskins** | Campaign Director



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**From:** Michael LeVine <mlevine@oceanconservancy.org>

**To:** "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>

**Cc:** "marissa.knodel@boem.gov" <marissa.knodel@boem.gov>, Andrew Hartsig <ahartsig@oceanconservancy.org>, Katherine Tsantiris <ktsantiris@oceanconservancy.org>, Reginald Paros <rparos@oceanconservancy.org>, Amy Trice <atrice@oceanconservancy.org>

**Subject:** [EXTERNAL] FW: Follow up from the forum

**Date:** Fri, 26 Mar 2021 22:42:44 +0000

**Attachments:** What\_About\_BOEM-\_The\_Need\_to\_Reform\_the\_Regulations\_Governing\_Off.pdf;  
Next\_Steps\_to\_Reform\_the\_Regulations\_Governing\_Offshore\_Oil\_and\_G.pdf;  
LeVine\_and\_Hartsig\_Modernizing\_Offshore\_Oil\_and\_Gas.pdf

**Inline-Images:** image003.jpg

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Hi again Director Lefton,

Just resending the email below with your correct email address.

Thanks, and have a good weekend.

Mike

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Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Ocean Conservancy  
Phone: 907.723.0136

---

**From:** Michael LeVine

**Sent:** Friday, March 26, 2021 2:35 PM

**To:** amanda\_lefton@ios.doi.gov

**Cc:** marissa.knodel@boem.gov; Andrew Hartsig; Katherine Tsantiris; Reginald Paros; Amy Trice

**Subject:** Follow up from the forum

Hi Director Lefton,

Thank you again for your part in hosting the forum yesterday and for the opportunity to participate. We were heartened by the breadth of voices and the serious consideration being given to meaningful change.

As I mentioned in response to your question, Andrew Hartstig and I have co-authored several articles about the need to reform the management of offshore oil and gas. Attached here are the two articles about reform of BOEM's

planning, leasing, and exploration regulations and the most recent publication about reforming OCSLA. We will also submit detailed written comments (including additional citations and resources) before the April 15 deadline

In addition to offshore oil and gas issues, Ocean Conservancy also focuses on encouraging responsible offshore wind development. Amy Trice, our lead on that issue, is copied here.

I've also copied Kathy Tsantiris and Reggie Paros, two of our government relations experts in Washington, DC. Perhaps once the initial work is done on the draft report this summer, they can help us arrange a meeting with you and your staff.

In the meantime, please feel free to reach out at any time about the forum, report, or anything else with which we can be helpful

Thank you again,

Mike



Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Juneau, Alaska  
O: 907.723.0136  
[mlevine@oceanconservancy.org](mailto:mlevine@oceanconservancy.org)  
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# WHAT ABOUT BOEM? THE NEED TO REFORM THE REGULATIONS GOVERNING OFFSHORE OIL AND GAS PLANNING AND LEASING

MICHAEL LEVINE,\* ANDREW HARTSIG,\*\* AND MAGGIE CLEMENTS\*\*\*

## ABSTRACT

*The nature of offshore oil and gas activities is changing as companies are forced into difficult and remote areas, including the U.S. Arctic Ocean. As evidenced by the 2010 Deepwater Horizon tragedy and Shell's error-plagued efforts to drill exploration wells in the Chukchi and Beaufort seas in 2012, the rules governing whether and under what conditions to allow offshore drilling in frontier areas have not kept pace with environmental and technical changes. These rules were implemented in 1979 and have remained substantively the same since. Recent changes to at the Department of the Interior to disband the Minerals Management Service, improve certain safety requirements, and move toward implementing Arctic-specific spill prevention and response requirements are important steps. Those changes, however, apply only after the decision to allow oil and gas activity has been made. Congress has not amended the governing statute, and the agency has not modified in any meaningful way the regulations that govern the initial processes through which it decides whether and under what circumstances to allow offshore oil and gas activities in a given area. This Article argues that the regulations that govern offshore oil and gas planning and leasing should be fundamentally revised to account for changes in the industry and agency, remedy broadly acknowledged deficiencies, and reflect new administrative policies. It also recommends a path to achieve the needed change.*

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\* Pacific Senior Counsel for Oceana, an international non-profit organization dedicated to maintaining and restoring ocean ecosystems. He lives and works in Juneau, AK.

\*\* Director of the Arctic Program at the Ocean Conservancy, a non-profit marine conservation organization. He lives and works in Anchorage, AK.

\*\*\* 2015 J.D. Candidate at New York University School of Law. The opinions and ideas expressed are her own and do not represent the views of the School of Law, her employers, or her supervisors.

## INTRODUCTION

*“The deterioration of the environment is in large measure the result of our inability to keep pace with progress. We have become victims of our own technological genius.”*<sup>1</sup>

The nature of offshore oil and gas activities is changing. More and more, companies are forced into difficult and remote areas, including the U.S. Arctic Ocean and ultra-deepwater. At the same time, Arctic waters are growing warmer, sea ice is declining rapidly, and the ocean is becoming more acidic.<sup>2</sup> Increasing attention from the scientific community, politicians, and the public at large has been focused on government choices about how to balance the desire for affordable energy with the need to maintain healthy, functioning ocean ecosystems in the Arctic. As evidenced by the 2010 *Deepwater Horizon* tragedy and Shell’s error-plagued efforts to drill exploration wells in the Chukchi and Beaufort seas in 2012,<sup>3</sup> the rules governing whether and under what conditions to allow offshore drilling in frontier areas have not kept pace with environmental and technical changes.

After the 1989 *Exxon Valdez* oil spill in Prince William Sound and the 1969 Santa Barbara blowout, Congress enacted legislation designed to enhance safety, improve government decision-making, and prevent future marine oil disasters.<sup>4</sup> To date, the *Deepwater Horizon* oil spill and the problems experienced by Shell in the Arctic have not spurred similar congressional action. Though Congress has not addressed deficiencies in the law, the Department of the Interior (DOI) has taken some steps to address obvious problems. Most notably, it disbanded the Minerals Management Service and replaced it with three independent successor agencies, improved certain safety requirements, and moved toward implementing Arctic-specific spill prevention and response requirements.<sup>5</sup>

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1. 1969 PUBLIC PAPERS OF THE PRESIDENTS OF THE UNITED STATES: RICHARD NIXON 222 (Washington, D.C.: United States Government Printing Office, 1971).

2. *Arctic Sea Ice Decline*, WEATHER UNDERGROUND, <http://www.wunderground.com/climate/SeaIce.asp> (last viewed Oct. 3, 2014); *Assessment of Arctic Ocean Acidification Studies Seawater pH*, ARCTIC COUNCIL (July 2013), <http://www.arctic-council.org/index.php/en/resources/news-and-press/news-archive/762-assessment-of-arctic-ocean-acidification-studies-seawater-ph>.

3. See *infra* Part II.B.

4. See *infra* Part III.A.

5. See HENRY B. HOGUE, CONG. RESEARCH SERV., R41485, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL 2 (2010). As explained below, at least some of the problems

While necessary and laudable, the substantive changes undertaken by DOI apply only after the decision to allow oil and gas activity has been made. DOI has not modified in any meaningful way the planning and leasing regulations that govern the initial processes through which the agency decides whether and under what circumstances to allow offshore oil and gas activities in a given area. These rules have remained essentially unchanged from their initial promulgation more than three decades ago. They have not kept pace with changes in the industry, and they fail to provide effective guidance, reflect new agency culture, incorporate updated analytical methodologies, or conform to modern policy priorities.

Existing law gives DOI ample flexibility to make meaningful changes to these outdated planning and leasing regulations. Regulatory reform could yield a more transparent and inclusive framework to guide decision-making about offshore oil and gas activities. Improved regulations could further good governance by providing for an appropriate balance of costs and benefits, the means to effectively identify and mitigate risks, a measure of consistency and certainty for corporate stakeholders, and meaningful protections for sensitive areas. These benefits could yield substantial improvements in agency decision-making processes and outcomes in the Arctic Ocean.

This Article argues in favor of revising the regulations that govern offshore oil and gas planning and leasing and recommends a path to achieve the needed change. While this Article focuses on application of these regulations to oil and gas activities in the frontier areas—the Arctic Ocean and ultra-deepwater—reform could yield benefits in all federal waters. The first Part of this Article briefly summarizes the history of the Outer Continental Shelf Lands Act, its provisions, and its implementing regulations. Part II explains the need for reform, and Part III identifies the changes that have—and have not—been implemented to date. Part IV addresses DOI’s authority to make the necessary changes. Finally, this Article concludes by suggesting one path DOI could follow if it chooses to revise its existing regulations.

## I. THE OUTER CONTINENTAL SHELF LANDS ACT AND IMPLEMENTING REGULATIONS

Federal offshore oil and gas activities are governed by the Outer Continental Shelf Lands Act (OCSLA).<sup>6</sup> OCSLA calls for the

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addressed by these changes were apparent before the *Deepwater Horizon* tragedy and Shell’s 2012 season. *See infra* Part II.B.

6. Pub. L. No. 83-212, 67 Stat. 462 (1953) (codified at 43 U.S.C. §§ 1331-

“expeditious and orderly development” of offshore oil and gas resources, “subject to environmental safeguards.”<sup>7</sup> The Parts that follow give a brief history of OCSLA, summarize the framework established by the statute, and describe the relevant implementing regulations.

### A. The Outer Continental Shelf Lands Act

Congress enacted OCSLA in 1953.<sup>8</sup> While the original statute authorized development of oil and gas resources on the Outer Continental Shelf (OCS), it did not establish a systematic approach to management; it failed to address oil pollution liability, state and local government involvement, injury to other users of the OCS, environmental concerns, and long-term energy policy.<sup>9</sup>

In 1978, Congress sought to remedy some of these weaknesses through comprehensive amendments to the statute.<sup>10</sup> Those amendments were designed to improve lease administration, promote greater involvement of states and localities, and enhance safety and environmental protection.<sup>11</sup> The 1978 amendments required oil and gas leasing programs intended to encourage more balanced development, less environmental damage, and fewer impacts on coastal zones.<sup>12</sup> The amendments also created an oil and gas information program within the United States Geological Survey, established an offshore oil spill pollution fund, provided grants to coastal states, and established contingency funds for fishermen.<sup>13</sup> In short, Congress intended the 1978 amendments to create a “new statutory regime” that would rein in agency discretion and address the environmental shortcomings of the

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1356b (2012).

7. § 1332(3) (2012).

8. Outer Continental Shelf Lands Act, Pub. L. No. 83-212, 67 Stat. 462 (1953) (codified at 43 U.S.C. §§ 1331-1356b (2012)).

9. H.R. Rep. No. 95-590, at 53 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1450, 1460-61.

10. Outer Continental Shelf Lands Act Amendments of 1978, Pub. L. No. 95-372, 92 Stat. 629. The only amendment to OCSLA prior to 1978 concerned the application of state law to OCS activities. 33 U.S.C. §§ 1501-1524 (2012); 43 U.S.C. § 1333 (2012). Section 19(f) of the Deepwater Port Act of 1974 made existing state law applicable to OCS activities, rather than state laws in force at the time of OCSLA’s original enactment. Pub. L. No. 93-627, § 19(f), 88 Stat. 2126, 2146.

11. H.R. Rep. No. 95-590, *supra* note 9, at 55; *see* Robert B. Krueger & Louis H. Singer, *An Analysis of the Outer Continental Shelf Lands Act Amendments of 1978*, 19 NAT. RESOURCES J. 909, 911-22 (1979) (providing a more detailed overview of changes made by the 1978 amendments to OCSLA).

12. 43 U.S.C. § 1344 (2012). Current regulation of five-year leasing programs occurs under 30 C.F.R. §§ 556.16-556.28.

13. H.R. Rep. No. 95-590, *supra* note 9, at 55.

original statute.<sup>14</sup>

While Congress has amended OCSLA since 1978, it has not fundamentally altered the management scheme.<sup>15</sup> Today, the framework for government decisions about OCS oil and gas activities is well-established under the law.

## B. OCSLA Framework

OCSLA establishes a four-stage process for offshore oil and gas planning, exploration, and development.<sup>16</sup> First, the Secretary of the Interior develops a nationwide leasing program, which establishes a five-year schedule of proposed lease sales.<sup>17</sup> The plan must indicate, “as precisely as possible, the size, timing, and location of leasing activity which . . . will best meet national energy needs” and “obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>18</sup>

Second, DOI holds the lease sales scheduled in the five-year leasing program. OCSLA calls for DOI to auction lease tracts in a competitive bidding process; successful companies obtain a conditional right “to explore, develop, and produce the oil and gas contained within the lease area.”<sup>19</sup>

Third, companies submit, and the government evaluates, plans to drill exploration wells on purchased leases.<sup>20</sup> In addition to exploration drilling, companies may apply to conduct seismic testing and other

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14. *Id.* at 53–55 (“The increased importance of OCS resources, the increased consideration of environmental and onshore impacts, and emphasis on comprehensive land use planning require that Congress detail standards and criteria for the Secretary to follow in the exercise of his authority.”).

15. Most recently, OCSLA was amended by the Energy Policy Act of 2005, which granted the Department of the Interior (DOI) jurisdiction for OCS renewable energy projects. Pub. L. No. 109-58, 119 Stat. 594.

16. See Andrew Hartsig, *Shortcomings and Solutions: Reforming the Outer Continental Shelf Oil and Gas Framework in the Wake of the Deepwater Horizon Disaster*, 16 OCEAN & COASTAL L.J. 269, 273 (2011); LeVine, et al., *Oil and Gas in America’s Arctic Ocean: Past Problems Counsel Precaution*, 38 SEATTLE U.L. REV. (forthcoming 2015).

17. 43 U.S.C. § 1344(a) (2012).

18. § 1344(a)(3), (1). As a result of litigation in the early 1980s, these plans are prepared in years ending in 2 and 7. See LeVine, et al. *supra* note 16. The current plan, for example, encompasses 2012–17, BOEM, PROPOSED FINAL OUTER CONTINENTAL SHELF OIL & GAS LEASING PROGRAM (2012), and BOEM will prepare the 2017–2022 program next.

19. § 1337(b)(4).

20. § 1340(c)(1)

activities on their lease tracts.<sup>21</sup> Such activities are subject to approvals separate from the exploration plan process.

Fourth, if companies find resources warranting production, they may submit proposals for development. Operators' activities must conform with approved development and production plans.<sup>22</sup>

In addition to adhering to the mandates established by OCSLA, government agencies involved in offshore oil and gas activities must satisfy the requirements of a variety of other statutes including the National Environmental Policy Act (NEPA), Clean Water Act, Oil Pollution Act of 1990, Endangered Species Act, and Marine Mammal Protection Act. While NEPA applies at all four stages of the process, the requirements of the other statutes are not triggered by the preparation of a five-year leasing program.<sup>23</sup>

### C. Implementing Regulations

Although OCSLA provides a process for decisions about offshore oil and gas activities, the framework is relatively broad and gives DOI substantial flexibility to determine exactly how and where oil and gas activities should be planned and permitted on the OCS.<sup>24</sup> Regulations implementing this framework should provide regulators, oil and gas companies, and the general public with the information and mechanisms needed to implement the statute in a manner consistent with Congress's objectives. In practice, however, DOI's regulations often fall short of the mark.

Although federal agencies can and should address other issues related to the implementation of OCSLA and the other statutes noted above, this Article focuses primarily on DOI regulations governing the first two phases of the OCSLA process: development of a five-year

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21. See NAT'L OCEANIC AND ATMOSPHERIC ADMIN., EFFECTS OF OIL AND GAS ACTIVITIES IN THE ARCTIC OCEAN: SUPPLEMENTAL DRAFT ENVTL. IMPACT STATEMENT ES-1 to ES-4 (2013).

22. 43 U.S.C. § 1351(a)(1).

23. See Hartsig, *supra* note 16, at 273-74. Prior to 2010, companies seeking to operate in the Arctic were subject to EPA regulations implementing the Clear Air Act. See 42 U.S.C. 7627(a), (b) (2010). A legislative rider attached to the 2011 Omnibus Appropriations Act transferred the authority to regulate air emissions from offshore activities in OCS area adjacent to the North Slope Borough of Alaska back to the Department of the Interior. See Consolidated Appropriations Act of 2012, Pub. L. No. 112-74, § 432, 125 Stat. 785, 1048-49. Similarly, prior to 2011, Alaska's Coastal Management Program applied to oil and gas activities in federal waters. That program was allowed to expire in 2011. Tim Bradner, *State's Coastal Zone Management Authority to Expire This Month*, ALASKA J. OF COMMERCE (June 3, 2011), [http://classic.alaskajournal.com/stories/060311/loc\\_sczm.shtml](http://classic.alaskajournal.com/stories/060311/loc_sczm.shtml).

24. See *infra* Part III.A.



program and leasing under that program.

When originally passed by Congress in 1953, OCSLA gave DOI authority to lease OCS lands for oil and gas production.<sup>25</sup> DOI promulgated the first regulations under this authority in 1954.<sup>26</sup> In the following years, DOI updated these regulations as the agency refined its procedures and OCS activities expanded.<sup>27</sup> Although DOI made substantive changes to its OCS leasing regulations between 1954 and 1978, the scope of these early regulations was ultimately limited by the scope of the original statute.

The 1978 amendments to OCSLA mark the transition to the framework in place today. Not surprisingly, those amendments triggered a major overhaul of DOI's OCS regulations in 1979.<sup>28</sup>

In the 35 years since, changes have been made to the regulations governing revenue, safety, and operations.<sup>29</sup> The planning and leasing regulations, however, have remained largely unchanged since their implementation in 1979.<sup>30</sup> Between 1980 and 2011, DOI made a total of twenty-five amendments to these planning and leasing regulations.<sup>31</sup> Of those, only eight were substantive; the remaining seventeen implemented technical corrections, re-designations, and definitional updates.

Of the eight substantive changes, only two were significant. In both cases, the changes were largely directed at operations on leases once they have been purchased.<sup>32</sup> In 1999, DOI amended its regulations to

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25. Section 5 of the original OCSLA of 1953 provides for administration of leasing, Section 6 for maintenance of leases, and Section 8 for leasing procedures. Pub. L. No. 83-212, 67 Stat. 462, 464-65 (1953).

26. Oil and Gas Leasing in Lands Under Rights-of-Way, 19 Fed. Reg. 9041 (Dec. 23, 1954) (codified at 30 C.F.R. pt. 221).

27. For example, in 1975, the Bureau of Land Management (BLM) amended its leasing regulations to establish joint bidding procedures and restrict the ability of major oil companies to bid together and to allow alien permanent residents to bid on and hold OCS leases. 43 C.F.R. § 3300.1, 3302.3-3 (1975). BLM also revised its regulations to require oil and gas companies to provide certain exploration data to the U.S. Geological Survey. 30 C.F.R. §§ 251.12, 252.3 43 C.F.R. § 3302.3-3 (1978).

28. See Outer Continental Shelf Minerals Leasing and Rights-of-Way Granting Programs, 44 Fed. Reg. 38,268 (June 29, 1979 (codified at 43 C.F.R. pt. 2880)). Changes in regulations governing production operations, however, are beyond the scope of this article.

29. See *infra* Part III.B.

30. These regulations are currently codified at 30 C.F.R. §§ 556.16-556.28 (2012) (five-year planning) and §§ 556.29-556.80 (leasing).

31. See *infra* Table A (summarizing the history of 30 C.F.R. pt. 556 from implementation to present).

32. See, e.g., Postlease Operations Safety, 64 Fed. Reg. 72,756 (Dec. 28, 1999) (codified at 30 C.F.R. pt. 250) (updating and clarifying requirements related to post-lease operations and setting out operator disqualification criteria, among

clarify post-lease operating and diligence requirements.<sup>33</sup> Among other things, the amendments allowed for disqualification of operators with repeated poor performance.<sup>34</sup> The second major change came in 2002, when DOI updated decommissioning requirements to improve their clarity and bring the regulations in line with current technologies.<sup>35</sup> The remaining six substantive amendments to the planning and leasing regulations had only minor impact: three changes to surety bond provisions, an alteration of lease terms based on water depth, and two changes to the royalty program.<sup>36</sup> None of these changes affected the regulations that govern DOI's choices about whether and under what conditions to allow offshore oil and gas leasing; the regulations governing those decisions remain more or less the same as they were thirty-five years ago.

In addition to being outdated, DOI's planning and leasing regulations are functionally deficient. The regulations governing the five-year planning process, for example, provide no substantive direction for agency staff or decision-makers to employ as they try to meet the statutory directive to "select the timing and location of leasing, to the maximum extent practicable, so as to obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone."<sup>37</sup> Nor can they be read to include any useful standards,

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other requirements); Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Decommissioning Activities, 67 Fed. Reg. 35,398 (May 17, 2002) (codified at 30 C.F.R. pts. 250, 256) (updating decommissioning requirements for oil and gas operations in the OCS).

33. Postlease Operations Safety, 64 Fed. Reg. at 72,756.

34. Although this provision has been in the regulations for the past fifteen years, the Bureau of Ocean Management (BOEM) and Bureau of Safety Environmental Enforcement (BSEE) have never disqualified an operator on the basis of performance. Instead the agencies and their predecessor, the Minerals Management Service, have relied on Performance Improvement Plans to change operator behavior. On BSEE's website only two operators are listed as participating in Performance Improvement Plans: TALOS Energy LLC is listed as currently participating, and Black Elk Energy Offshore Operations, LLC is listed as previously participating. *Performance Improvement Plans*, BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, [http://www.bsee.gov/Inspection-and-Enforcement/Enforcement-Programs/Performance\\_improvement\\_Plans](http://www.bsee.gov/Inspection-and-Enforcement/Enforcement-Programs/Performance_improvement_Plans) (last visited Oct. 10, 2014).

35. Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Decommissioning Activities, 67 Fed. Reg. at 35,398 ("[This rule] restructured the requirements to make the regulations easier to read and understand . . . [and] updated requirements to reflect changes in technology.").

36. See 58 Fed. Reg. at 45,255; 61 Fed. Reg. 55,887; 62 Fed. Reg. 36,995; 66 Fed. Reg. 11,512; 66 Fed. Reg. 60,147; 73 FR 52,917. See Table A for a summary of these changes.

37. 43 U.S.C. § 1344(a)(3); *id.* § 1344(a)(1). BOEM has stated that "[s]triking

guidelines, or benchmarks to guide consideration of the nine factors that the statute requires the agency to consider in allocating the “[t]iming and location of exploration, development, and production” among the various ocean regions.<sup>38</sup> Instead, the existing regulations cover only: nominations for inclusion of areas in the plan; public notice, including review by state and local governments; consultation; consistency with state coastal zone management programs; reports from federal agencies; and requirements for area identification and lease tract size.<sup>39</sup> The closest the regulations come to providing guidance on the balancing required in crafting the leasing program are the directions to the agency to “evaluate fully the potential effect of leasing on the human, marine and coastal environments, and develop measures to mitigate adverse impacts, including lease stipulations.”<sup>40</sup>

The regulations governing lease sales are similarly devoid of substantive direction with regard, for example, to determining whether to hold a scheduled sale and what portions of the OCS program area should be included in that sale. In fact, the only explicit requirement regarding the ocean environment is the direction to “develop measures, including lease stipulations and conditions, to mitigate adverse impacts on the environments.”<sup>41</sup> All of the remaining regulations describe opportunities for comment, bidding requirements and systems, bonding, or other procedural requirements.<sup>42</sup>

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this balance based on a consideration of the principles and factors enumerated in section 18(a) is a matter of judgment for which no ready formula exists. Section 18 requires the consideration of a broad range of principles and factors rather than imposing an inflexible formula for making decisions.” BOEM, PROPOSED FINAL OUTER CONTINENTAL SHELF OIL & GAS LEASING PROGRAM 188 (2012). Without regulatory guidance to help it undertake that balancing, the agency in 2012 was left to quote extensively from the D.C. Circuit opinions evaluating challenges to its earlier efforts. *Id.* at 191-93.

38. 43 U.S.C. § 1344(a)(2). For example, OCSLA Section 18(a)(2)(B) requires consideration of “an equitable sharing of developmental benefits and environmental risks among the various regions.” *Id.* § 1344(a)(2)(B). BOEM meets this obligation using a net benefits calculation. *See* BOEM, PROPOSED FINAL OUTER CONTINENTAL SHELF OIL & GAS LEASING PROGRAM 134 (2012). There are no regulations to guide this analysis, the factors considered, or reliance on the conclusions reached.

39. 30 C.F.R. §§ 556.16-556.28 (2011).

40. *Id.* § 556.26(b).

41. *Id.* § 556.29(a).

42. *Id.* §§ 556.29-.80. Separate regulations govern lease cancellation and suspension. *See* §§ 550.181-.185.

## II. THERE IS CLEAR NEED TO REFORM THE AGENCY'S PLANNING AND LEASING REGULATIONS

DOI's regulations have not kept pace with changes in the oil and gas industry since the late 1970s. The following Subparts describe the rapid pace of change, calls for regulatory change, and the new priorities that are not reflected in existing regulations.

### A. Rapid Change and Growing Challenges in the Oil and Gas Industry

The nature of the offshore oil and gas industry has changed substantially since DOI promulgated its planning and leasing regulations in the late 1970s. Most notably, exploration and production have been forced to deeper and more remote waters. These places in the ocean—ultra-deepwater and the Arctic Ocean—are often referred to as “frontier areas,” and it is widely recognized that good management of the resources in these frontier areas requires particular care.<sup>43</sup>

In the Gulf of Mexico, offshore exploration and development began in shallower waters on the continental shelf. In the 1980s, however, economic and geologic factors pushed the industry to explore “larger fields in deeper waters.”<sup>44</sup> Discoveries in deeper water led to producing wells in the 1990s, and by the end of that decade, deepwater production surpassed production from shallow waters.<sup>45</sup> Shortly thereafter, deepwater wells were producing twice as much oil as shallow water wells, and a growing amount of that oil came from “ultra-deepwater” wells more than 5,000 feet below the ocean surface.<sup>46</sup> At the same time, “[d]rilling contractors developed a new generation of vessels that took drilling from 5,000 to 10,000 feet of water, and from 20,000 to 30,000 feet of sub-seafloor depth.”<sup>47</sup> At these extreme depths, operating challenges include: extreme pressure and temperature; difficult and poorly

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43. See NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT 300-01 (2011), available at <http://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf>.

44. NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, A BRIEF HISTORY OF OFFSHORE OIL DRILLING 7 (2010), available at <http://cybercemetery.unt.edu/archive/oilspill/20121211011815/http://www.oilspillcommission.gov/sites/default/files/documents/A%20Brief%20History%20of%20Offshore%20Drilling%20Working%20Paper%208%2023%2010.pdf>.

45. *Id.* at 9–10.

46. *Id.*

47. NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 37.

understood geology; increased distances from reservoir to drilling unit; exposure to ocean currents; the need to use remotely operated vehicles; and the presence of methane hydrates.<sup>48</sup> Despite these challenges, deepwater production is likely to grow in importance.<sup>49</sup>

Similarly, the growing interest in exploring for oil and gas in the Arctic Ocean has been described as part of a new Arctic “gold rush.”<sup>50</sup> Energy companies spent billions of dollars purchasing leases and pursuing exploration in federal waters of the U.S. Arctic Ocean in the 1980s and early 1990s.<sup>51</sup> However, no development resulted, and by 2000, industry had allowed almost all of those leases to expire.<sup>52</sup> A decade or so later, changing conditions in the Arctic, high energy prices, and rising demand led to renewed interest in the region. Between 2003 and 2008, energy companies purchased more than 1 million acres of leases in the Beaufort Sea and more than 2 million acres in the Chukchi Sea.<sup>53</sup> Shell sought approvals to drill exploration wells beginning in 2007,<sup>54</sup> but the company has yet to complete any wells.<sup>55</sup>

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48. *Id.* at 51–52.

49. *Oversight Hearing on “The Final Report from the President’s National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling Before the H. Comm. on Natural Res., 112<sup>th</sup> Cong. 37 (2011) (joint statement of the Honorable Bob Graham, Co-Chairman, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, and the Honorable William K. Reilly, Co-Chairman, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling) [hereinafter Graham & Reilly Testimony]; see also NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, A BRIEF HISTORY OF OFFSHORE OIL DRILLING, supra note 44, at 15 (“[M]ost experts project the world’s appetite for oil and other fuels to grow for the foreseeable future. The role of deepwater oil and gas in providing that energy is also likely to grow.”).*

50. *See, e.g.,* Isaac Arnsdorf, *Diamonds to Oil Bring Gold Rush Dreams to Melting Arctic*, BLOOMBERG (Apr. 30, 2014), <http://www.bloomberg.com/news/2014-04-29/diamonds-to-oil-bring-gold-rush-dreams-to-melting-arctic.html>.

51. *See* LeVine, et al. *supra* note 16 (forthcoming 2015).

52. *Id.*

53. *See* BUREAU OF OCEAN ENERGY MGMT., HISTORICAL LEASE SALE SUMMARY TABLE, (May 13, 2014), *available at* [http://www.boem.gov/uploadedFiles/BOEM/About\\_BOEM/BOEM\\_Regions/Alaska\\_Region/Leasing\\_and\\_Plans/Leasing/Historical\\_Alaska\\_Region\\_Lease\\_Sales.pdf](http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Leasing/Historical_Alaska_Region_Lease_Sales.pdf).

54. MINERALS MGMT. SERV., ENVIRONMENTAL ASSESSMENT: SHELL OFFSHORE INC. BEAUFORT SEA EXPLORATION PLAN 2 (2007), *available at* [http://www.boem.gov/uploadedFiles/BOEM/About\\_BOEM/BOEM\\_Regions/Alaska\\_Region/Environment/Environmental\\_Analysis/2007-009.pdf](http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Environment/Environmental_Analysis/2007-009.pdf).

55. *See* Clifford Krauss, *Shell Submits a Plan for New Exploration of Alaskan Arctic Oil*, N.Y. TIMES, (Aug. 28, 2014), [http://www.nytimes.com/2014/08/29/business/shell-submits-a-plan-for-new-alaskan-arctic-oil-exploration.html?\\_r=0](http://www.nytimes.com/2014/08/29/business/shell-submits-a-plan-for-new-alaskan-arctic-oil-exploration.html?_r=0) (showing that Shell is continuing its pursuit of Arctic drilling but has not yet succeeded).

The challenges of operating in the Arctic Ocean are different, but no less severe, than those in deepwater environments.<sup>56</sup> These challenges include “extreme cold, extended seasons of darkness, hurricane-strength storms, and pervasive fog,” and the need to protect rich, sensitive, and important ecosystems.<sup>57</sup> There is very limited infrastructure in the region: the nearest Coast Guard station is in Kodiak, Alaska, roughly 1,000 miles from the likely locations of oil and gas exploration,<sup>58</sup> and the nearest large deepwater port is in Dutch Harbor.<sup>59</sup> There is no proven method to respond effectively in icy waters, and traditional response methods may be ineffective.<sup>60</sup> In addition, the Arctic region is changing rapidly as a result of warming climate, and the lack of information about the marine ecosystem or those changes makes it difficult to assess or mitigate the effects of industrial activities.<sup>61</sup>

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56. See LeVine, et al., *supra* note 16 (forthcoming 2015).

57. Graham & Reilly Testimony, *supra* note 49, at 38; see also *Legislative Hearing on H.R. 2231 Before the Subcomm. on Energy and Mineral Res. of the H. Comm. on Natural Res.*, 112th Cong. 2-7 (2013) (statement of Michael LeVine, Pacific Senior Counsel, OCEANA).

58. Dan Joling, *Critics Say Grounding Shows Arctic Drilling Danger*, USA TODAY, (Jan. 3, 2013), <http://www.usatoday.com/story/news/nation/2013/01/02/arctic-drilling-danger/1805577/>.

59. See Deborah Zabarenko, *Arctic Oil Spill Would Challenge Coast Guard*, REUTERS (Jun. 20, 2011), <http://www.reuters.com/article/2011/06/20/us-arctic-oil-idUSTRE75I6O620110620> (quoting U.S. Coast Guard Adm. Robert Papp Jr. as saying that “[t]here is nothing up there to operate from at present and we’re really starting from ground zero”).

60. See WORLD WILDLIFE FUND, NOT SO FAST: SOME PROGRESS IN SPILL RESPONSE, BUT US STILL ILL-PREPARED FOR ARCTIC OFFSHORE DEVELOPMENT (2009), available at [http://assets.worldwildlife.org/publications/401/files/original/Not\\_So\\_Fast\\_Some\\_Progress\\_in\\_Spill\\_Response\\_but\\_US\\_Still\\_Unprepared\\_for\\_Arctic\\_Offshore\\_Development.pdf?1345754373](http://assets.worldwildlife.org/publications/401/files/original/Not_So_Fast_Some_Progress_in_Spill_Response_but_US_Still_Unprepared_for_Arctic_Offshore_Development.pdf?1345754373) (showing difficulties with spill response in Alaska); PEW ENV’T GRP., OIL SPILL PREVENTION AND RESPONSE IN THE U.S. ARCTIC OCEAN: UNEXAMINED RISKS, UNACCEPTABLE CONSEQUENCES 73-75 (2010), available at [http://www.pewtrusts.org/~media/legacy/oceans\\_north\\_legacy/page\\_attachments/Oil-Spill-Prevention.pdf](http://www.pewtrusts.org/~media/legacy/oceans_north_legacy/page_attachments/Oil-Spill-Prevention.pdf) (showing the particular risks associated with drilling in the Arctic); Jacob D. Unger, note, *Regulating the Arctic Gold Rush: Recommended Regulatory Reforms to Protect Alaska’s Arctic Environment from Offshore Oil Drilling Pollution*, 31 ALASKA L. REV. 280-90 (2014) (proposing a multi-factor reform to better align corporate incentives and to compensate harmed individuals for losses due to oil spills).

61. INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC 8 (2013), available at [http://www.afsc.noaa.gov/Publications/misc\\_pdf/IAMreport.pdf](http://www.afsc.noaa.gov/Publications/misc_pdf/IAMreport.pdf).

**B. The Need for Reform Has Been Broadly Recognized in Light of the Tragedy in the Gulf of Mexico and Accidents and Near-Misses in the Arctic**

The risks inherent in operating in frontier areas have been underscored by the 2010 *Deepwater Horizon* tragedy and by the substantial problems that Shell encountered in its efforts to drill exploration wells in the Chukchi and Beaufort Seas in 2012. Those problems and their causes have been detailed elsewhere and are not repeated here.<sup>62</sup> It is instructive, however, to note that both events spurred broad calls for reform.

The need for reform was, at least in part, evident even before the *Deepwater Horizon* tragedy. Before the accident, DOI had initiated two studies: one “to examine how to upgrade the safety inspection program for offshore rigs,” and the other “to analyze issues associated with drilling in the Arctic.”<sup>63</sup> In addition, there was substantial evidence that close relationships between regulators and industry resulted in criminal and unethical behavior as well as problems with oversight of industry operations.<sup>64</sup> In January 2009, Secretary of the Interior Ken Salazar announced “an ethics reform initiative in response to the problems identified at [the Minerals Management Service] and elsewhere in the agency.”<sup>65</sup> There were also identified problems with the agency’s compliance with the National Environmental Policy Act (NEPA),

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62. See, e.g., NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43; U.S. COAST GUARD, REPORT OF INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING THE MULTIPLE RELATED MARINE CASUALTIES AND GROUNDING OF THE MODU KULLUK (2014), available at <http://www.uscg.mil/d17/sectoranchorage/command/KULLUK%20Investigation.pdf>; U.S. DEP’T OF THE INTERIOR, REVIEW OF SHELL’S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM (2013).

63. COUNCIL ON ENVIRONMENTAL QUALITY, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE’S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 2 n.3 (2010), available at <http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100816-ceq-mms-ocs-nepa.pdf>.

64. See U.S. DEPARTMENT OF THE INTERIOR, OFFICE OF THE INSPECTOR GENERAL, INVESTIGATIVE REPORT: MMS OIL MARKETING GROUP-LAKEWOOD (2008), available at [https://web.archive.org/web/20081002100545/http://www.doiig.gov/upload/RIK%20REDACTED%20FINAL4\\_082008%20with%20transmittal%209\\_10%20date.pdf](https://web.archive.org/web/20081002100545/http://www.doiig.gov/upload/RIK%20REDACTED%20FINAL4_082008%20with%20transmittal%209_10%20date.pdf) (describing the scandal in which MMS employees developed close personal relationships with industry members).

65. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 78 (citing Press Release, U.S. Department of the Interior, Secretary Salazar Launches Ethics Reform Initiative in Meeting with Minerals Management Service).

including in Alaska.<sup>66</sup>

The 2010 *Deepwater Horizon* spill triggered much more intense scrutiny of existing OCS oil and gas practices, including the creation of a Presidential Commission tasked with determining the causes of the disaster, improving oil spill response, and “recommend[ing] reforms to make offshore energy production safer.”<sup>67</sup> According to the co-chairmen of the National Commission on the *Deepwater Horizon* and Offshore Drilling:

The explosion at the Macondo well and the ensuing enormous spill—particularly jarring events because of the belief they could never happen—force a reexamination of many widely held assumptions about how to reconcile the risks and benefits of offshore drilling, and a candid reassessment of the nation’s policies for the development of a valuable resource. They also support a broader reexamination of the nation’s overall energy policy.<sup>68</sup>

In the wake of the *Deepwater Horizon* tragedy, many of the reforms identified as necessary understandably focused on safety, oversight, and accident prevention and response.<sup>69</sup> Calls for reform, however, were not limited to those areas. Experts also identified the need to reconsider how decisions are made about “whether, when, where, and how to engage in offshore drilling”<sup>70</sup>—choices that are made during the planning and lease-sale phases of the OCSLA process. There were specific calls for DOI to change the manner in which it undertook planning, leasing, and environmental review. The National Commission, for example, identified the need for “a more comprehensive overhaul of both leasing and the regulatory policies and institutions used to oversee offshore

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66. See, e.g., U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-10-276, OFFSHORE OIL AND GAS DEVELOPMENT: ADDITIONAL GUIDANCE WOULD HELP STRENGTHEN THE MINERALS MANAGEMENT SERVICES ASSESSMENT OF ENVIRONMENTAL IMPACTS IN THE NORTH ALEUTIAN BASIN (2010).

67. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at vi.

68. Graham & Reilly Testimony, *supra* note 49, at 36; see also U.S. DEPARTMENT OF THE INTERIOR, OUTER CONTINENTAL SHELF SAFETY OVERSIGHT BOARD REPORT TO SECRETARY OF THE INTERIOR KEN SALAZAR 1 (2010), available at <http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=43677> (“The accident and ensuing spill challenged 40 years of generally accepted belief that offshore operations could occur safely under existing regulation and oversight.”).

69. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 249-78.

70. Graham & Reilly Testimony, *supra* note 49, at 36.



activities.”<sup>71</sup> It determined that management and oversight—on the part of both government and industry—had not “kept pace with rapid changes in the technology, practices, and risks associated with the different geological and ocean environments being explored and developed for oil and gas production.”<sup>72</sup>

The National Commission concluded that “[f]undamental reform” was “needed in both the structure of those in charge of regulatory oversight and their internal decision-making process to ensure their political autonomy, technical expertise, and their full consideration of environmental protection concerns.”<sup>73</sup> Similarly, there have been repeated calls to reform the NEPA regulations at all stages of the OCSLA process.<sup>74</sup> The Council on Environmental Quality, for example, recommended reforms designed to address shortcomings in the application of NEPA to OCS activities.<sup>75</sup>

In addition to recommending general reforms that apply to all areas of the OCS, the National Commission also identified the specific need to reform the OCS leasing process in frontier areas, including the Arctic:

In less well-explored areas, Interior should reduce the size of lease sales so their geographic scope allows for a meaningful analysis of potential environmental impacts and identification of areas of ecological significance. A bidder on tracts in these areas and all other areas should be able to demonstrate, in addition to financial prequalification and ability to contain a maximum-size spill, experience operating in similar environments and a record of safe, environmentally responsible operation—either in the United States or as verified by a peer regulator for another country. The distinction between the OCS and less well-explored areas in the Gulf should be defined by the new entity in charge of leasing and environmental science.<sup>76</sup>

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71. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 250.

72. *Id.* at 251.

73. *Id.* at vii.

74. See, e.g., *id.* at 261 (“The Council on Environmental Quality and the Department of the Interior should revise and strengthen the NEPA policies, practices, and procedures to improve the level of environmental analysis, transparency, and consistency at all stages of the OCS planning, leasing, exploration, and development process.”); COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 63, at 23-29.

75. See COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 63, at 4.

76. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 262.

Similar calls for fundamental reform were again heard, with renewed vigor, in the wake of the grounding of Shell's *Kulluk* drilling unit and the numerous other problems encountered by Shell during its 2012 Arctic drilling attempts.<sup>77</sup> Shell's failed efforts to complete exploration wells in the Chukchi and Beaufort Seas triggered reviews and evaluations that reinforced the broad need for reform.<sup>78</sup> In the Coast Guard report on the grounding of the *Kulluk*, the Assistant Commandant states that "the inadequate assessment and management of risks by the parties involved was the most significant causal factor in the mishap" and expresses dismay at the "significant number and nature of the potential violations of law and regulations."<sup>79</sup> Similarly, DOI's review of Shell's 2012 drilling season identified the need for Arctic-specific safety and response regulations.<sup>80</sup> The need to reform NEPA processes in the Arctic region was identified even prior to 2012.<sup>81</sup>

In sum, many of the problems that have come to light in the past decade, and the resulting calls for reform, involve systemic failures in DOI's culture, decision-making, planning, and evaluation of potential in-the-water impacts. As many of the analyses show, regulatory changes should be informed by a holistic view of the way government makes decisions about whether and under what conditions to allow oil and gas leasing, exploration, and development. It is not sufficient simply to examine safety, oversight, and revenue. Though those issues are important, true reform requires reexamining all aspects of the relevant decisions. In this reexamination, the planning and leasing stages are significant, because they occur before rights are transferred to energy companies. Once an OCS lease has been sold, it becomes much more difficult and costly for the government to prevent or significantly curtail exploration activities. While OCSLA does allow the government to

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77. See Dan Joling, *Shell Kulluk Ship Investigation Called For By House Democrats*, HUFFINGTON POST (Jan. 3, 2013), [http://www.huffingtonpost.com/2013/01/03/shell-kulluk-ship-investigation\\_n\\_2404904.html](http://www.huffingtonpost.com/2013/01/03/shell-kulluk-ship-investigation_n_2404904.html).

78. See Ed Crooks, *US Reviews Shell's Arctic Drilling Plans*, FINANCIAL TIMES, (Jan. 9, 2013), <http://www.ft.com/cms/s/0/356b14ee-5a0a-11e2-88a1-00144feab49a.html#axzz3Eu2hk97B>.

79. U.S. COAST GUARD, *supra* note 62, at 1.

80. U.S. DEP'T OF THE INTERIOR, *supra* note 62.

81. See Letter from Carole A. Holley, Alaska Program Co-Director, Pacific Environment, to Horst Greczmiel, Associate Director for NEPA Oversight, re: *Review of MMS NEPA Policies, Practices, and Procedures for OCS Oil and Gas Exploration and Development* (June 17, 2010), [http://www.whitehouse.gov/files/ceq/pe\\_ceq\\_nepa\\_comments\\_06\\_17\\_10\\_final.pdf](http://www.whitehouse.gov/files/ceq/pe_ceq_nepa_comments_06_17_10_final.pdf); see also U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 66, at 21 (finding that the process for meeting NEPA requirements was "ill defined," and that agency staff lacked "adequate guidance on how . . . to implement NEPA with respect to" programs areas).

cancel leases and prohibit exploration and development,<sup>82</sup> this option is rarely exercised.<sup>83</sup> Reform, therefore, should encompass the entirety of the OCSLA process; it should not be limited to standards that apply only after areas have been included in leasing programs and leases have been sold to energy companies.

### C. Existing Regulations Do Not Provide Guidance with Respect to New Priorities and Policies

In addition to accounting for changes in the industry and calls for reform generated by the *Deepwater Horizon* tragedy and Shell's error-plagued Arctic drilling efforts, existing regulations should be updated to ensure that planning and leasing activities adhere to administrative priorities and policies that have been established in recent years. These policies include efforts to ensure transparency and open government, provide for greater stewardship of ocean and coastal resources, and promote integrated management in the U.S. Arctic.

At the broadest level, transparency is essential to ensure the accountability of, and good performance by, industrial operators and contractors as well as regulatory agencies. President Obama made a commitment to create "an unprecedented level of openness in Government," and "a system of transparency, public participation, and collaboration."<sup>84</sup> Similarly, the Office of Management and Budget directed executive agencies to, among other things, publish information online, improve the quality of government information, and foster a culture of open government.<sup>85</sup> DOI's planning and leasing regulations fail to implement these directives or move toward their underlying goals in any meaningful way; they do little to ensure the availability of public data, studies, or other information relevant to decisions about oil and gas planning and leasing on the OCS.

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82. 43 U.S.C. § 1334 (2012).

83. Though not expressly invoking this authority, BSEE limited the depth to which Shell was permitted to drill in 2012 in light of the company's failure to comply with the terms of the conditional approval granted for its exploration proposal. *BSEE Authorizes Shell Preparatory Activities in Beaufort Sea: Limited Activities to be Conducted in Non-Oil-Bearing Zones*, BSEE (Sept. 20, 2012), <http://www.bsee.gov/BSEE-Newsroom/Press-Releases/2012/BSEE-Authorizes-Shell-Preparatory-Activities-in-Beaufort-Sea/>. The company had not received requisite certification for part of its response plan. *Id.*

84. Transparency and Open Government, 74 Fed. Reg. 4685 (Jan. 29, 2009).

85. *Memorandum for the Heads of Executive Departments and Agencies*, THE WHITE HOUSE OFFICE OF THE PRESS SECRETARY (Jan. 9, 2009), [http://www.whitehouse.gov/the\\_press\\_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-3-9-09](http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-3-9-09).

Existing regulations also predate President Obama's 2010 Executive Order establishing a "National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes."<sup>86</sup> The President declared that it is United States policy to "protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources," to improve resiliency of ocean ecosystems, and to "use the best available science and knowledge to inform" decisions about the ocean.<sup>87</sup> The Executive Order requires executive branch agencies to take the necessary actions to implement the National Ocean Policy and its associated stewardship principles "to the fullest extent consistent with applicable law."<sup>88</sup> Existing regulations, however, provide no standards to ensure that DOI's planning and leasing activities comply.

With respect to the Arctic in particular, existing planning and leasing regulations offer no standards to help regulators seeking to comply with the National Strategy for the Arctic Region,<sup>89</sup> which calls for the pursuit of responsible stewardship, protection of the Arctic environment, and conservation of the region's resources.<sup>90</sup> Similarly, the Administration's new "Integrated Arctic Management" approach is intended to incorporate environmental, economic, and cultural needs into more holistic management for the Arctic region.<sup>91</sup> Existing regulations, however, do not offer guidance to help agency officials, industry, and the public understand how DOI's planning and leasing processes will accommodate the new approach.<sup>92</sup>

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86. Exec. Order No. 13,547, 75 Fed. Reg. 43,023 (July 19, 2010).

87. *Id.* at § 2(a).

88. *Id.* at § 6.

89. See generally WHITE HOUSE, NATIONAL STRATEGY FOR THE ARCTIC REGION (2013) available at [http://www.whitehouse.gov/sites/default/files/docs/nat\\_arctic\\_strategy.pdf](http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf).

90. *Id.* at 2.

91. *Id.* at 8.

92. See *id.* (calling for the establishment and institutionalization of a framework for integrated Arctic management); see also INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC: A REPORT TO THE PRESIDENT 46 (2013) (defining "Integrated Arctic Management" as "a science-based, whole-of-government approach to stewardship and planning in the U.S. Arctic that integrates and balances environmental, economic, and cultural needs and objectives. It is an adaptive, stakeholder-informed means for looking holistically at impacts and sensitivities across the U.S. Arctic and generating sustainable solutions.").

### III. CONGRESS HAS NOT ACTED TO REVISE OCSLA, AND NON-LEGISLATIVE REFORMS HAVE YET TO ADDRESS DEFICIENCIES IN THE ADMINISTRATION OF OCS PLANNING AND LEASING

As established in the preceding Parts, the rules governing OCS planning and leasing are more than three decades old, do not provide meaningful substantive guidance, have not kept pace with changes in the industry, and do not account for new administrative policies and priorities. Many of these failings have received additional emphasis in the wake of the *Deepwater Horizon* disaster and Shell's 2012 failures. Congress, however, has taken no meaningful action to address the problems, and regulatory change at DOI, while significant, has not addressed planning or leasing.

#### A. Lack of Congressional Action

In the past, Congress has taken meaningful action to address the deficiencies in the statutory regime made apparent by major oil spills. After the *Exxon Valdez* disaster, Congress passed the Oil Pollution Act of 1990 (OPA), which, among other things, mandated double-hulled tankers and facility-specific spill response plans for offshore drilling rigs.<sup>93</sup> Earlier, the 1969 Santa Barbara blowout was one of the key factors that led Congress to pass the National Environmental Policy Act (NEPA) and drove Congress and the California state legislature to pass other substantive legislation.<sup>94</sup>

The *Deepwater Horizon* disaster led to calls for Congress to reform OCSLA and other statutes affecting offshore oil and gas activities and spill response. The National Commission, for example, recommended that "Congress should review and consider amending where necessary the governing statutes for all agencies involved in offshore activities to be consistent with the responsibilities functionally assigned to those agencies."<sup>95</sup> More specific recommendations were made to remove or raise OPA's \$75 million limit on a responsible party's liability for damages, improve the manner in which funds may be disbursed from the Oil Spill Liability Trust Fund, extend the 30-day deadline for

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93. Oil Pollution Act of 1990, Pub. L. 101-380, 104 Stat. 484 (codified as amended at 33 U.S.C. §§ 2701-2719 (2012)).

94. See, e.g., *45 Years after the Santa Barbara Oil Spill, Looking at a Historic Disaster Through Technology*, NOAA OFFICE OF RESPONSE AND RESTORATION, (Jan. 28, 2014), <http://response.restoration.noaa.gov/about/media/45-years-after-santa-barbara-oil-spill-looking-historic-disaster-through-technology.html>.

95. NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 256.

reviewing exploration plans, codify the division of DOI's planning, revenue, and enforcement functions, and better fund needed science.<sup>96</sup> Some of the recommended changes—extending the deadline for review of exploration plans, for example—would specifically amend provisions of OCSLA or another statute to improve the decision-making or liability scheme. Others—codifying the division of revenue, planning, and enforcement, for example—would create new requirements to help insulate decisions from political pressure and likely improve the scientific basis for decisions.<sup>97</sup>

Despite these calls for reform, Congress took no action to amend OCSLA or otherwise alter the standards, requirements, or decision-making framework applicable to offshore oil and gas activities. Congress considered a series of proposals that would have implemented substantive changes, but it passed only one law, the RESTORE Act, which addresses restoration in the wake of the *Deepwater Horizon* spill and the allocation of administrative and civil penalties.<sup>98</sup> More recently, congressional action has focused on efforts designed to increase offshore leasing and production, although no legislation has been enacted.<sup>99</sup>

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96. See *id.* at 262, 264, 283–86; see also Graham & Reilly Testimony, *supra* note 49, at 4–5 (identifying need to codify division of DOI functions, raise the liability limit, and raise the per incident payout amount from the Oil Spill Liability Trust Fund); Unger, *supra* note 60 (proposing a four-step reform process to the OPA and related laws).

97. See, e.g., Graham and Reilly Testimony *supra* note 49, at 9 (stating that “[o]ther Commission recommendations will require congressional action, especially those recommendations that seek to promote the independence of the Offshore Safety Authority from politics”); Hartsig, *supra* note 16, at 311–14 (articulating the National Commission’s recommendations for an interagency approach to facilitate expert scientific review system-wide).

98. The RESTORE Act establishes a Gulf Coast Ecosystem Restoration Council, allocates 80% of “all administrative and civil penalties related to the Deepwater Horizon spill to a Gulf Coast Restoration Trust Fund, and outlines a structure by which the funds can be utilized to restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast region.” RESTORE Act, GULF COAST ECOSYSTEM RESTORATION COUNCIL, <http://www.restorethegulf.gov/council/about-gulf-coast-ecosystem-restoration-council> (last visited Oct. 10, 2014).

99. See Offshore Energy and Jobs Act, H.R. 2231, 113th Cong. (2013) (this bill, which passed the House of Representatives, would, among other actions, expand offshore leasing, remove important environmental safeguards, and prioritize oil and gas activities above other uses of ocean resources); see, e.g., Michael LeVine, *Written Testimony for Legislative Hearing on HR 2231, the “Offshore Energy and Jobs Act,”* H.R. Comm. on Natural Resources, Subcommittee on Energy and Mineral Resources (June 11, 2013).

## B. Some Progress Has Been Made to Improve Safety, Prevention, and Response

Though Congress has not taken meaningful action other than passing the RESTORE Act, DOI and industry have made some strides to improve safety, prevention, and independent decision-making. While important, none of these changes affect the manner in which the agency evaluates planning or leasing decisions.

DOI began its reform effort by dividing the agency that had been charged with overseeing oil and gas activities on the OCS—the Minerals Management Service (MMS)—into the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) and the Office of Natural Resources Revenue (ONRR).<sup>100</sup> The former was tasked with handling regulatory functions, while the latter took on the accounting functions of the former MMS.<sup>101</sup> Later, BOEMRE was further divided into the Bureau of Ocean Energy Management (BOEM), which handles planning and approvals, and the Bureau of Safety and Environmental Enforcement (BSEE), which is charged with enforcement and oversight.<sup>102</sup> This division is at least partially responsive to the need identified by the National Commission and others to separate revenue collection, safety, and planning.<sup>103</sup>

Building on this division, ONRR promulgated a series of new regulations designed to improve its revenue collection functions.<sup>104</sup> Additionally, DOI has:

initiated additional inspections of all deepwater oil and gas drilling operations in the Gulf of Mexico and issued a safety notice to all rig operators; drafted and implemented the 30-Day Safety Report, including the issuance of Notices to Lessees on

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100. See, e.g., HOGUE, *supra* note 5, at 3, 10–11.

101. *Id.*

102. *Id.* at 3–4. Ken Salazar, Secretarial Order 3299: “Establishment of the Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement, and the Office of Natural Resources Revenue,” DEPARTMENT OF INTERIOR (May 19, 2010), <http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=32475>.

103. See *supra* Part II.B; see also Press Release, U.S. Department of the Interior, Salazar Divides MMS’s Three Conflicting Missions: Establishes Independent Agency to Police Offshore Energy Operations (May 19, 2010), available at <http://www.doi.gov/news/pressreleases/salazar-divides-mmss-three-conflicting-missions.cfm> (quoting Secretary of the Interior Salazar as stating that the purpose of the reorganization was to divide the “three distinct and conflicting missions” of the Minerals Management Service—“effective enforcement, energy development, and revenue collection”).

104. *Rules and Regulations*, OFFICE OF NATURAL RESOURCES REVENUE, [http://www.onrr.gov/Laws\\_R\\_D/default.htm](http://www.onrr.gov/Laws_R_D/default.htm) (last visited Oct. 10, 2014).

new safety and environmental requirements, and the initiation of new rulemakings for safety and environmental protection; established a moratorium on operations utilizing certain equipment associated with deepwater drilling; and implemented new requirements that operators must submit information regarding blowout scenarios with their Exploration Plans.<sup>105</sup>

Beyond these changes, BSEE finalized an Offshore Drilling Safety rule in August 2012.<sup>106</sup> “The final rule included some additional requirements about barriers that must be in place within the wells and extended some of the requirements pertaining to blowout preventers . . . .”<sup>107</sup> BSEE has also issued a draft Safety Culture Policy Statement and proposed revisions to its Safety and Environmental Management Systems (SEMS) Rule.<sup>108</sup>

DOI has committed to implementing Arctic-specific safety and spill prevention regulations.<sup>109</sup> It has done so at least in part in response to the deficiencies made evident by Shell’s problematic 2012 efforts to drill exploration wells.<sup>110</sup> These regulations are likely to codify prevention and response measures employed in the 2012 season but not address government planning or leasing obligations. In addition, DOI has stated its intent to use a “targeted approach” to leasing in the Arctic, which recognizes that some areas of the Arctic may not be suitable for leasing, or may require specific mitigation measures.<sup>111</sup> However, DOI has yet to

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105. COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 63, at 2 n.3.

106. Press Release, BSEE, BSEE Releases Offshore Drilling Safety Rule, (Aug. 15, 2012), *available at* <http://www.bsee.gov/BSEE-Newsroom/Press-Releases/2012/BSEE-Releases-Offshore-Drilling-Safety-Rule/>.

107. OIL SPILL COMMISSION ACTION, ASSESSING PROGRESS THREE YEARS LATER 7 (2013), *available at* [http://oscaction.org/wp-content/uploads/FINAL\\_OSCA-No2-booklet-Apr-2013\\_web.pdf](http://oscaction.org/wp-content/uploads/FINAL_OSCA-No2-booklet-Apr-2013_web.pdf).

108. *Id.*

109. See Tim Bradner, *Interior Dept. May Have Draft Rules for Arctic by Year-end*, ALASKA J. OF COMMERCE (Sept. 22, 2014), <http://www.alaskajournal.com/Alaska-Journal-of-Commerce/June-Issue-3-2013/Interior-Dept-may-have-draft-rules-for-Arctic-by-year-end>.

110. See U.S. DEPARTMENT OF THE INTERIOR, REPORT TO THE SECRETARY OF THE INTERIOR, REVIEW OF SHELL’S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM 6 (2013), *available at* <http://www.doi.gov/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf> (“Government and industry should continue to evaluate the potential development of additional Arctic-specific standards in the areas of drilling and maritime safety and emergency response equipment and systems.”).

111. U.S. DEPT. OF THE INTERIOR, BUREAU OF OCEAN ENERGY MGMT, PROPOSED FINAL OUTER CONTINENTAL SHELF OIL & GAS LEASING PROGRAM 2012-2017 206 (2012), *available at* [http://www.boem.gov/uploadedFiles/BOEM/Oil\\_and\\_Gas\\_Energy\\_Program/Leasing/Five\\_Year\\_Program/2012-](http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-)



implement this change in a planning process or lease sale, and there has been no proposal to formalize it in regulation.

Industry, too, has made progress.<sup>112</sup> According to the former commissioners from the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, companies and spill response organizations have “significantly expanded the quality and quantity of the equipment to respond to a spill.”<sup>113</sup>

### **C. Despite Some Progress on Other Fronts, the Regulations Governing Planning and Leasing Have Not Improved**

The reforms and policy changes enumerated above, though potentially valuable in increasing safety, accident prevention, and spill response, apply only after DOI has decided to allow oil and gas activities to proceed in particular areas. None of the codified improvements have addressed the identified deficiencies in the administration of planning and leasing on the OCS. For example, the former members of the National Commission “remain concerned that [BOEM] has as yet to propose any regulations strengthening practices and procedures for preparing [environmental impact] statements and improving the quality of the reviews during the planning, leasing, exploration, and development stages.”<sup>114</sup>

The planning and leasing stages are especially critical because they are when DOI determines whether particular areas of the ocean will be made available for leasing and potential exploration drilling and development. To the extent that DOI and other agencies wish to implement broad management decisions affecting the OCS—such as a decision not to allow drilling activities in an important marine area—they can most easily do so at the planning and leasing stages. As noted above, once an energy company leases an area of the OCS, it becomes significantly more difficult for the government to reverse course. For all of these reasons, DOI should take action to reform the regulations governing its preparation of five-year leasing programs and sale of OCS leases.

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2017\_Five\_Year\_Program/PFP%2012-17.pdf; see *id.* at 7 (noting that “certain subsets of Arctic areas will be excluded because environmental and subsistence conditions strongly weigh in favor of keeping them off the table for exploration and development”).

112. See generally OIL SPILL COMMISSION ACTION, *supra* note 107.

113. *Id.* at 3. The former commissioners also express hope, though tempered, for the industry-sponsored Center for Offshore Safety. *Id.* at 7.

114. *Id.* at 8.

#### IV. DOI CAN TAKE ACTION THAT WOULD MEANINGFULLY ADDRESS SHORTCOMINGS IN EXISTING PLANNING AND LEASING REGULATIONS

As the preceding Part makes clear, both DOI and industry have improved some of the structures, regulations, and policies that govern offshore oil and gas activities. The reforms undertaken to date have been necessary and important, but they have not been comprehensive, and significant shortcomings remain. To address these shortcomings, DOI could carry out a broader reform process—one designed to advance the foundational changes that started when Secretary Salazar disbanded the Minerals Management Service and created BOEM, BSEE, and ONRR. While many aspects of DOI's OCS regulations should be revisited,<sup>115</sup> substantive changes to the regulations that govern the planning and leasing stages are particularly critical.

As explained in the Parts below, OCSLA gives DOI discretion to promulgate revised planning and leasing regulations. Revised regulations could provide more clarity and guidance, which, in turn, would help to ensure more effective balancing of energy development and environmental protection. This type of regulatory reform could remedy many of the deficiencies identified in the foregoing Parts.

##### A. DOI Has the Authority to Pursue Regulatory Reform

OCSLA not only calls for the “expeditious and orderly development” of offshore oil and gas resources, it also requires that development to be “subject to environmental safeguards.”<sup>116</sup> As described above, Congress enacted the 1978 Amendments to OCSLA in part to help ensure that efforts to develop oil and gas resources were balanced with environmental protections.<sup>117</sup> OCSLA's provisions allow DOI significant flexibility to determine how to achieve this balance, but current regulations provide relatively little guidance. Given the flexibility inherent in OCSLA, DOI is free to promulgate revised regulations that provide more direction to regulators, the industry, and the general public. In fact, with regard to leasing, OCSLA explicitly provides that the Secretary of the Interior “may at any time prescribe and amend . . . rules and regulations as he determines to be necessary

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115. For example, DOI has not yet reformed regulations that govern its review of exploration plans for OCS oil and gas activities. NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 80.

116. 43 U.S.C. § 1332(3) (2012).

117. *See supra* Part I.A.

and proper in order to provide for the prevention of waste and conservation of the natural resources of the outer Continental Shelf, and the protection of correlative rights therein . . . .”<sup>118</sup>

OCSLA’s mandate to develop a five-year OCS leasing program offers a good example of the discretion afforded to DOI. Section 18 of OCSLA requires the Secretary of the Interior to prepare a five-year OCS leasing program that achieves “a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>119</sup> The statute requires the Secretary to consider certain factors when making this determination,<sup>120</sup> but it is for the Secretary to decide what actually constitutes a “proper balance” and determine how to measure the various factors considered.<sup>121</sup> Ultimately, OCSLA “gives the Secretary of the Interior tremendous discretion.”<sup>122</sup>

Existing regulations provide no guidance to help the Secretary strike the balance mandated by OCSLA. Regulations implementing this section of OCSLA simply do not address this aspect of the statute. As a result of this regulatory deficiency, “[t]he Secretary can assign significant weight to environmental protection concerns – or not.”<sup>123</sup>

DOI has the ability to clarify the five-year program balancing requirements imposed by OCSLA through promulgation of revised agency regulations, so long as the new regulations are consistent with the underlying statute.<sup>124</sup> Given the broad statutory mandates described above, DOI has significant latitude to develop more detailed regulations that include standards defining the various factors and explaining how the Secretary will consider and weigh them. Such regulations would create an understandable and repeatable process to help ensure that future five-year programs achieve the “proper balance” mandated by OCSLA’s five-year planning provisions.

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118. § 1334(a).

119. *Id.* § 1344(a)(3).

120. *Id.* § 1344(a)(2).

121. For example, OCSLA Section 18(a)(2)(G) requires consideration of “the relative environmental sensitivity and marine productivity of different areas of the outer Continental Shelf.”

122. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 80.

123. *Id.*

124. *Cf.* *Chevron v. Natural Res. Defense Council, Inc.*, 467 U.S. 837, 842–43 (1984) (holding that if Congress has not directly addressed a particular question, courts must defer to the agency’s permissible construction of the statute).

## B. Improvements to OCS Planning and Leasing Regulations Could Remedy the Shortcomings Identified in the Foregoing Sections

Carried out effectively, reform of DOI's OCS planning and leasing regulations could result in guidance that leads to better processes and outcomes. Revised regulations could help ensure that DOI applies the National Environmental Policy Act (NEPA) consistently and receives the full benefit of the process; is armed with knowledge sufficient to make informed decisions; conforms to new policies that promote ocean stewardship; and fulfills the Administration's commitment to transparency and open government. This type of regulatory reform could also benefit energy companies seeking to operate on the OCS by fostering more regulatory consistency and certainty.

Revised regulations could clarify and strengthen DOI's application of NEPA requirements to the OCSLA planning and leasing process. For example, revised regulations could codify processes for NEPA consultation and coordination among DOI agencies—such as BOEM, BSEE, and the Fish and Wildlife Service—and with other federal agencies including the National Oceanic and Atmospheric Administration, the U.S. Coast Guard, and others. Similarly, regulations could specify a protocol that facilitates effective consultation with affected tribes and Native corporations. Clarifying the relationship between OCSLA and NEPA at the planning and lease-sale stages could also reduce confusion related to “tiering” between different levels of environmental analysis,<sup>125</sup> which could help eliminate analytical gaps and ensure that environmental analyses more accurately capture the cumulative effects of existing and anticipated development. By spelling out exactly how the agency will comply with NEPA's requirements at each stage of the OCSLA process, DOI can reduce confusion, promote consistency, and facilitate more meaningful involvement.

Adoption of revised OCS planning and leasing regulations could also help ensure that DOI has access to the information necessary to make wise decisions about whether, where, and how to make areas of the OCS available for oil and gas development. For example, revised regulations could require a certain level or quality of scientific information about an area of the OCS before that area is included in a five-year program or lease sale. Similarly, revised regulations could require DOI to take certain steps to solicit and consider traditional knowledge about marine areas under consideration for leasing. These

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125. Cf. COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 63 at 22–26; NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, REPORT TO THE PRESIDENT, *supra* note 43, at 260.

steps would help ensure that government agencies have access to, and take into account, information from local residents, including Alaska Natives. Revised regulations could also ensure that regulators understand the potential limitations of oil spill response in a given area, which could help DOI effectively describe and weigh the potential risks of activities in areas where there are significant hurdles to effective spill response.

Regulatory reform can also provide direction to facilitate compliance with the stewardship responsibilities established in the National Ocean Policy.<sup>126</sup> Regulations could establish standards that help DOI ensure that its planning and leasing activities “protect, maintain, and restore the health and biological diversity” of ocean and coastal areas and improve resiliency of ocean ecosystems “to the fullest extent consistent with applicable law.”<sup>127</sup> With respect to the Arctic in particular, revised regulations could help define how DOI comports with the National Strategy for the Arctic Region, including its calls to “pursue responsible Arctic region stewardship,” and “protect the Arctic environment and conserve its resources.”<sup>128</sup> For example, regulations could require DOI to use available information to identify marine areas that are most critical to ecosystem functioning, including regions identified as subsistence use areas. Revised regulations could also codify DOI’s “targeted approach” to leasing in the Arctic, which recognizes that some areas of the Arctic may not be suitable for leasing or may require specific mitigation measures.<sup>129</sup>

OCS planning and leasing regulations could also be revised to promote more transparent and inclusive processes, consistent with President Obama’s open government directive.<sup>130</sup> DOI could change existing regulations to ensure that data, studies, and other information relevant to OCS planning and leasing processes are made available to the public and posted online for easy access. Ensuring the availability of information about the OCS may also help foster increased or more meaningful public participation in OCS planning and leasing processes.

In addition, regulatory reform could have the salutary benefit of providing certainty to companies. As one example, albeit from the exploration phase, both ConocoPhillips and Statoil identified uncertain

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126. Exec. Order No. 13,547, *supra* note 86.

127. *Id.* at §§ 2(a), 6.

128. WHITE HOUSE, *supra* note 89.

129. *See* U.S. DEPT. OF THE INTERIOR, *supra* note 110, at 7 (noting that “certain subsets of Arctic areas will be excluded because environmental and subsistence conditions strongly weigh in favor of keeping them off the table for exploration and development.”).

130. *See supra*, Part II.C.

standards as reasons for delaying exploration in the Arctic Ocean. In fact, ConocoPhillips announced in a press statement that it was delaying planned exploration activities “given the uncertainties of evolving federal regulatory requirements and operational permitting standards.”<sup>131</sup> Using regulatory reform to clarify the planning and leasing processes—and the exploration plan approval process—would provide at least a measure of the certainty that these companies seek.

### CONCLUSION AND PATH FORWARD

The 1978 amendments to OCSLA were intended to ensure an appropriate balance between the pursuit of hydrocarbon resources in federal waters and the protection of the marine environment. All too often, however, DOI has fallen short of this objective. Over the years, there have been numerous calls for reform, especially in the wake of the 2010 *Deepwater Horizon* tragedy and Shell’s error-ridden effort to drill exploration wells in the Chukchi and Beaufort seas in 2012.<sup>132</sup>

DOI has taken some important steps toward better governance of OCS oil and gas activities. The most visible and public of these changes has been the transition from the Minerals Management Service (MMS) to the three new agencies that have taken its place: ONRR, BSEE, and BOEM. This change was intended to be more than a re-branding of a troubled agency; it was meant to be a step toward fundamental change in agency culture.<sup>133</sup> While there has been some progress in that direction, the cultural shift largely has yet to be codified in new or revised agency regulations.

The exceptions to this rule have been largely directed at safety and performance standards, such as promulgation of the 2013 Offshore Drilling Safety Rule,<sup>134</sup> issuance of the draft Safety Culture Policy Statement and proposed revisions to the Safety and Environmental Management Systems Rule,<sup>135</sup> and the announcement of future Arctic-specific safety and prevention regulations.<sup>136</sup> With regard to planning and leasing, however, BOEM and BSEE still rely on outdated regulations

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131. News Release, Regulatory Uncertainty Leads ConocoPhillips to Put 2014 Chukchi Sea Exploration Drilling Plans on Hold, ConocoPhillips Alaska (April 10, 2013), available at <http://alaska.conocophillips.com/Documents/NR-AK-Chukchi%20Sea-FINAL%204-9-2013.pdf>.

132. HOGUE, *supra* note 5, at 9.

133. See generally *id.*

134. Press Release, BSEE, *supra* note 106.

135. Revisions to Safety and Environmental Management Systems, 76 Fed. Reg. 56,683 (Sep. 14, 2011) (to be codified as 30 C.F.R. pt 250).

136. Bradner, *supra* 109.

that have not kept pace with changes the industry and do not reflect new priorities and policies. Similar problems exist with respect to the regulations that address the approval of exploration and oil spill response plans, and it is clear that comprehensive reform is needed.

DOI is already contemplating Arctic-specific regulations aimed at improving drilling safety and spill response in that region. The agency should complete this process. Once the new Arctic-specific rules are complete, DOI could announce an Advance Notice of Proposed Rulemaking and begin a suite of regulatory reforms that cover other aspects of the OCSLA process, including the five-year planning, lease sale, and exploration plan approval stages. This sort of comprehensive overhaul would not be simple, and DOI might consider a step-wise process that aims to reform one portion of the regulations at a time. This process would take time—each portion of the regulations could easily take a year or more to complete<sup>137</sup>—but that is all the more reason to start now.

Announcing this type of comprehensive regulatory reform would send a strong signal that DOI intends to keep moving forward with the transition from the old MMS and toward a new way of doing business on the OCS.

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137. See, e.g., WILMA A. LEWIS, MARY L. KENDALL & RHEA S. SUH, U.S. DEP'T OF THE INTERIOR OUTER CONTINENTAL SHELF SAFETY OVERSIGHT BOARD REPORT TO SECRETARY OF THE INTERIOR KEN SALAZAR 26 (2010), available at <http://www.doi.gov/news/pressreleases/upload/OCS-Safety-Oversight-Board-Report.pdf> (recognizing that “[r]egulations typically take years to promulgate”).

## APPENDIX

**TABLE A. 30 C.F.R. pt. 556 Amendment History Summary**

| Date       | Federal Register | Summary                                                                                                                                                                                                                                                                                                                      |
|------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1979-06-29 | 44 FR 38,268     | Implements OCSLA 1978 changes; redesignates 43 CFR Subpart 2883 (rights-of-way management) into Part 3300                                                                                                                                                                                                                    |
| 1982-10-22 | 47 FR 47,006     | Redesignates 43 CFR Part 3300 (admin. by BLM) to 30 CFR Part 256 (MMS)                                                                                                                                                                                                                                                       |
| 1983-09-23 | 48 FR 43,323     | Adds a new Information Collection section to 30 CFR Part 256                                                                                                                                                                                                                                                                 |
| 1988-01-28 | 53 FR 10,596     | Restructures and consolidates existing rules; formalizes OCS Orders developed to govern operations conducted in each of MMS's four OCS Regions and portions of selected Notices to Lessees and Operators issued by regional offices                                                                                          |
| 1989-12-08 | 54 FR 50,615     | Technical corrections                                                                                                                                                                                                                                                                                                        |
| 1993-08-27 | 58 FR 45,255     | Amends surety bond provisions                                                                                                                                                                                                                                                                                                |
| 1994-10-21 | 59 FR 53,091     | Specifically states the authority of MMS to require lessees or operators to conduct archaeological resource surveys and submit reports prior to exploration, development and production, or installation of lease term or right-of-way pipelines; standardizes the definition and use of the term "archaeological resources" |
| 1996-07-03 | 61 FR 34,730     | Allows agency extension of bid acceptance period                                                                                                                                                                                                                                                                             |
| 1996-10-30 | 61 FR 55,887     | Amends lease terms based on depth                                                                                                                                                                                                                                                                                            |
| 1997-05-22 | 62 FR 27,948     | Amends surety bond provisions; makes other changes that reduce the risk of default by an underfunded operator                                                                                                                                                                                                                |



| <b>Date</b> | <b>Federal Register</b> | <b>Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1997-07-10  | 62 FR 36,995            | Correction to 62 FR 27948                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1999-02-24  | 64 FR 9065              | Technical corrections                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1999-03-18  | 64 FR 13,343            | Correction to 64 FR 9065                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1999-12-28  | 64 FR 72,756            | Updates and clarifies requirements related to post-lease operations; allows the grant of rights-of-use and easements for an OCS blocks to state lessees; brings uniformity to the public release time for all proprietary geophysical data and information gathered under prelease; clarifies the distinction between granting and directing a suspension; requires evacuation statistics for natural occurrences; sets out criteria to disqualify an operator with repeated poor operating performance; allows operators the opportunity to propose alternative regulatory approaches |
| 2000-01-19  | 65 FR 2874              | Technical corrections                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2001-02-23  | 66 FR 11,512            | Establishes a new leasing incentive framework; adds minor reporting requirement for all leases issued with royalty suspension and specifies the allocation of royalty relief on a field having lease issued before and after 2000                                                                                                                                                                                                                                                                                                                                                      |
| 2001-06-19  | 66 FR 32,902            | Eliminates separate offshore definition of "affected state"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2001-12-03  | 66 FR 60,147            | Modifies surety provisions; codifies terms and conditions under which a surety will be relieved of responsibility when MMS terminates the period of liability of a bond                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2002-05-17  | 67 FR 35,398            | Updates decommissioning requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2005-08-25  | 70 FR 49,871            | Implements new fees to offset internal costs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2005-09-26  | 70 FR 56,119            | Hurricane Katrina related extensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| <b>Date</b> | <b>Federal Register</b> | <b>Summary</b>                                                 |
|-------------|-------------------------|----------------------------------------------------------------|
| 2005-10-27  | 70 FR 61,891            | Hurricane Katrina related extensions                           |
| 2008-08-25  | 73 FR 49,943            | Electronic payments                                            |
| 2008-09-12  | 73 FR 52,917            | Creates bonus royalty credits for relinquishing certain leases |
| 2009-09-14  | 74 FR 46,904            | Technical corrections                                          |
| 2011-10-18  | 76 FR 64,432            | Redesignates 30 CFR Part 256 (MMS) to 30 CFR Part 556 (BOEM)   |

# NEXT STEPS TO REFORM THE REGULATIONS GOVERNING OFFSHORE OIL AND GAS PLANNING AND LEASING

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HEIN,\*\*\* & JASON SCHWARTZ\*\*\*\*

## ABSTRACT

*The Department of the Interior manages offshore oil and gas activities in federal waters. While the agency has proposed and/or enacted important improvements to the rules that govern some of those activities, it has not modernized the regulations that govern offshore oil and gas planning, lease sales, or the review and permitting of exploratory drilling. These phases of the process are overseen by the Bureau of Ocean Energy Management (BOEM), and, as was shown in our earlier publication on this topic, are ineffective and in need of modernization. In this Article, we argue that fundamental reform is necessary and highlight a series of key themes and topics that must be addressed to improve the regulatory process and promote better, more consistent management outcomes. While the Article draws on examples from frontier areas – in particular the U.S. Arctic Ocean – the recommended changes would apply to and benefit all areas of the OCS.*

## INTRODUCTION

In this Article, we build on *What About BOEM? The Need to Reform the Regulations Governing Offshore Oil and Gas Planning and Leasing*,<sup>1</sup>

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which made the case that the regulations governing offshore oil and gas planning and leasing activities on the Outer Continental Shelf (OCS) are outdated, ineffective, and in need of revision. The previous Article showed that the nature of the offshore oil and gas industry is changing and that regulations applicable to Bureau of Ocean Energy Management (BOEM) obligations have not kept pace with those changes.<sup>2</sup>

Here, we take that call for reform one step further by suggesting potential improvements to the regulations that govern three of BOEM's substantive obligations: (1) development of five-year OCS oil and gas leasing programs; (2) sale of OCS leases to oil and gas companies; and (3) review of OCS exploration drilling plans. At these stages of the process, BOEM determines where and under what circumstances oil and gas companies may be allowed to explore for—and potentially develop and produce—hydrocarbons on the OCS. As in our earlier Article, most of the justifications presented here focus on frontier areas and, in particular, potential oil and gas activities in the U.S. Arctic Ocean. The changes we recommend, however, would apply to and benefit all areas of the OCS.

In crafting these recommendations, we highlight recent progress and identify the benefits of codifying changes through regulations. We do not, however, recommend specific language or address individual regulatory provisions that should be revisited. Recognizing that fundamental changes need to be made to the regulations, we focus on key themes that would improve the regulatory process and foster better management outcomes.

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1. Michael LeVine, Andrew Hartsig & Maggie Clements, *What About BOEM? The Need to Reform the Regulations Governing Offshore Oil and Gas Planning and Leasing*, 31 ALASKA L. REV. 231, 231–62 (2014).

2. Shortly before this Article went to press, DOI issued a rule to restructure and reorder many of BOEM's regulations. See *Leasing of Sulfur or Oil and Gas in the Outer Continental Shelf*, 81 Fed. Reg. 18,111, 18,111–76 (Mar. 30, 2016). The rule will add new sections, eliminate unnecessary text, and make other changes intended to clarify BOEM regulations. These changes are largely administrative in nature, and they do not remedy the substantive shortcomings identified in this Article. However, readers should be aware that the citations provided in this Article pre-date the new rule, which is scheduled to take effect at the end of May, 2016. *Id.* at 18,112. When the new rule takes effect, the citations to BOEM regulations in this Article may not correspond to BOEM's revised regulatory structure.

Further, recent decisions to stop certain offshore activities in frontier areas—like Shell’s decision to halt Arctic Ocean exploration “for the foreseeable future”<sup>3</sup>—create an opportunity to effectuate change. The Department of the Interior (DOI) can use this interval to better prepare for future leasing decisions and improve the overall management of the federal program. Interest in Arctic Ocean leasing and exploration, for example, has been cyclical.<sup>4</sup> Proactive steps to address regulatory deficiencies should lead to better decisions, if and when interest reemerges. Meanwhile, there is likely to be continued demand for offshore leases in the Gulf of Mexico, and implementing these recommendations will help BOEM make smarter, more transparent, and more consistent decisions throughout its management of the OCS. The recent announcement by the Secretary of the Interior that DOI would pause all new coal leasing and comprehensively evaluate the federal coal program<sup>5</sup> and the mounting public concern about the climate impacts from fossil fuel development reflect a recognition that the type of review we advocate is both possible and timely.

This Article suggests a pragmatic path toward meaningful reform of BOEM’s planning, leasing, and exploration plan review processes. Part I provides necessary background and context for our argument, including the importance of effective regulations, changes that have already been made, and the need for further reform. In Part II, we describe our suggested regulatory reforms. We recommend both overarching changes that are broadly applicable to new regulations as well as specific reforms targeting five-year planning, lease sales, and permitting and authorization of exploration activities on the OCS. These recommendations call for greater transparency, more attention to environmental and social risks, and the use of modern economic tools, among other improvements. We conclude with recommendations for a path forward for DOI.

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3. Press Release, Shell Global, Shell Updates on Alaska Exploration (Sept. 28, 2015).

4. Michael LeVine, Peter Van Tuyn & Layla Hughes, *Oil and Gas in America’s Arctic Ocean: Past Problems Counsel Precaution*, 37 SEATTLE UNIV. L. REV. 1271, 1314–21 (2015) (noting the industry let most Arctic Ocean leases expire after a surge of leasing in the 1980s).

5. Secretarial Order No. 3338, Discretionary Programmatic Environmental Impact Statement to Modernize the Federal Coal Program, (Jan. 15, 2016), [http://www.blm.gov/style/medialib/blm/wo/Communications\\_Directorate/public\\_affairs/news\\_release\\_attachments.Par.4909.File.dat/FINAL%20SO%203338%20Coal.pdf](http://www.blm.gov/style/medialib/blm/wo/Communications_Directorate/public_affairs/news_release_attachments.Par.4909.File.dat/FINAL%20SO%203338%20Coal.pdf).

## I. BACKGROUND AND CONTEXT

### A. Effective Regulations Are Important for Effective Agency Processes

The primary function of agency regulations is to “implement, interpret, or prescribe law or policy.”<sup>6</sup> Lawmakers frequently craft statutes that are “so broadly phrased that agencies have enormous leeway to fill in the gaps—both procedural and substantive—of the legislation so long as they keep within the terms of the governing statutes.”<sup>7</sup> In other words, Congress frequently gives administrative agencies extensive discretion to set policies and procedures.<sup>8</sup> An agency’s power “to administer a congressionally created and funded program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress.”<sup>9</sup> When confronted with such a gap, federal agencies are empowered to “elucidate a specific provision of the statute by regulation.”<sup>10</sup>

Regulations must be consistent with the underlying statutory framework and Congress’s intentions.<sup>11</sup> Truly effective regulations, however, go beyond that basic requirement. They are “consistent, sensible, and understandable”<sup>12</sup> and “promote predictability and reduce uncertainty.”<sup>13</sup> Agencies must strive “to promote such coordination, simplification, and harmonization” among multiple regulatory entities.<sup>14</sup> Moreover, existing regulations must be reviewed periodically to determine if they are “outmoded, ineffective, insufficient, or excessively burdensome.”<sup>15</sup> As President Obama stated, federal agencies have a “mission to root out regulations that conflict, that are not worth the cost, or that are just plain dumb.”<sup>16</sup>

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6. 5 U.S.C. § 551(4) (2012); Exec. Order No. 12,866, Sec. 3(d), 3 C.F.R. § 638 (1993).

7. WILLIAM F. FOX, JR., UNDERSTANDING ADMINISTRATIVE LAW 5 (4th ed. 2000).

8. *Id.*

9. *Morton v. Ruiz*, 415 U.S. 199, 231 (1974).

10. *Chevron v. Natural Res. Def. Council*, 467 U.S. 837, 844 (1984).

11. *See, e.g., id.* at 843 (noting that both agencies and courts “must give effect to the unambiguously expressed intent of Congress”). *See also* Exec. Order No. 12,866, *supra* note 6, at § 2(a) (noting that agencies must ensure that “regulations are consistent with applicable law”).

12. Exec. Order No. 12,866, *supra* note 6, at § 2(a).

13. Exec. Order No. 13,563, Sec. 1(a), 3 C.F.R. § 215 (2012).

14. *Id.* § 3.

15. *Id.* § 6.

16. Barack Obama, Commentary, *Toward a 21st-Century Regulatory System*, WALL ST. J. (Jan. 18, 2011).

Regulations that do not effectively fill the gaps left by Congress create the possibility of inconsistent agency decisions and increase the risk of litigation. Effective rules, on the other hand, streamline agency analyses, ensure good practices are carried forward, and help keep pace with innovation.

## B. The Need to Reform Existing Rules

The Outer Continental Shelf Lands Act (OCSLA)<sup>17</sup> is the primary law governing management of oil and gas activities in federal waters. The statute is intended to enable “expeditious and orderly development [of OCS resources], subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs.”<sup>18</sup> OCSLA creates a four-stage process for management of offshore oil and gas activities: (1) developing a Five-Year Leasing Program, (2) holding the lease sales scheduled in that Program, (3) evaluating and permitting exploration activities, and (4) evaluating and permitting development and production activities.<sup>19</sup> At each of these stages, the statute provides some direction, but its mandates are broadly stated and afford the agency substantial discretion.<sup>20</sup>

In many respects, OCSLA itself should be updated to reflect the changing industry and lessons learned in the wake of the *Deepwater Horizon* tragedy and Shell’s failed 2012 drilling season.<sup>21</sup> Congress, however, has taken no action to amend the statute and is unlikely to do so in the current political environment.

In contrast, DOI has made progress in advancing reforms using the authority and discretion afforded by the statute. Most notably, DOI disbanded the troubled Mineral Management Service (MMS) and replaced it with three independent successor agencies: BOEM, the Bureau of Safety and Environmental Enforcement (BSEE), and the Office of Natural Resources Revenue (ONRR).<sup>22</sup> This change was intended to

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17. 43 U.S.C. §§ 1331–56 (2012).

18. *Id.* § 1332(3).

19. *Id.* §§ 1337, 1340, 1344, 1345, 1351. *See also* LeVine, Hartsig & Clements, *supra* note 1, at 235–36 (explaining the four-stage process in detail). Additional information about this framework is also available at LeVine, Van Tuyn, & Hughes, *supra* note 4, at 1308–10.

20. LeVine, Hartsig & Clements, *supra* note 1, at 254–55.

21. *See* Andrew Hartsig, *Shortcomings and Solutions: Reforming the Outer Continental Shelf Oil and Gas Framework in the Wake of the Deepwater Horizon Disaster*, 16 OCEAN & COASTAL L. J. 269, 273 (2011). *See also* LeVine, Van Tuyn, & Hughes, *supra* note 4 (describing needed changes).

22. HENRY B. HOGUE, CONG. RESEARCH SERV., R41485, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL 14 (2010). *See also* LeVine, Hartsig & Clements, *supra* note 1, at

improve DOI's performance with respect to ensuring: (1) balanced and responsible development of energy resources on the OCS; (2) safe and environmentally responsible exploration and production and enforcement of applicable regulations; and (3) fair return to the taxpayer from offshore royalty and revenue collection and disbursement activities.<sup>23</sup>

DOI has also made progress in modernizing some of its regulations. By and large, these changes have applied to the revenue collection functions of ONRR and to the safety and inspection functions of BSEE.<sup>24</sup>

This progress has continued since publication of our earlier Article. In addition to the reforms described there, BOEM has increased the liability limits for offshore facilities to keep pace with inflation.<sup>25</sup> This update, which went into effect in January 2015, was the first time the liability limits were changed since they were required in 1990 by the Oil Pollution Act.<sup>26</sup>

In February 2015, BSEE and BOEM proposed a new safety and spill prevention rule applicable to exploration in the U.S. Arctic Ocean.<sup>27</sup> When finalized, this rule will codify important new requirements, like same-season relief well capability, production of an Integrated Operations Plan, and seasonal restrictions to account for ice cover.<sup>28</sup> While important, the new safety and prevention requirements do not address all of the risks in the Arctic and do not take advantage of other opportunities to improve safety and response.<sup>29</sup>

In March 2016, BOEM released proposed new rules that would update the manner in which the agency regulates air emissions from offshore operations.<sup>30</sup> The new rule is responsive to a provision in the

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251 (discussing the reform in detail).

23. *The Reorganization of the Former MMS*, U.S. BUREAU OF OCEAN ENERGY MGMT. [hereinafter BOEM], <http://www.boem.gov/About-BOEM/Reorganization/Reorganization.aspx> (last visited Mar. 24, 2016).

24. LeVine, Hartsig & Clements, *supra* note 1, at 251–53.

25. Consumer Price Index Adjustments of the Oil Pollution Act of 1990 Limit of Liability for Offshore Facilities, 79 Fed. Reg. 73,832, 73,832–33 (Dec. 12, 2014).

26. *Id.* See also Press Release, BOEM, BOEM Adjusts Limit of Liability for Oil Spills from Offshore Facilities (Dec. 11, 2014) (announcing the increase in liability limits).

27. Oil and Gas and Sulphur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf, 80 Fed. Reg. 9,916, 9,916–71 (proposed Feb. 24, 2015).

28. *Id.* at 9, 924–26.

29. *Arctic Resources and American Competitiveness: Oversight Hearing Before the Subcomm. on Energy and Mineral Res. of the H. Comm. on Nat. Res.*, 114th Cong. 10–11 (June 16, 2015) (statement of Michael LeVine, Pacific Senior Counsel, Oceana).

30. Air Quality Control, Reporting, and Compliance, 81 Fed. Reg. 19,717



2012 Consolidated Appropriations Act in which Congress transferred the authority to regulate air pollution from activities on the OCS offshore of the North Slope Borough in Alaska from the Environmental Protection Agency to DOI.<sup>31</sup> The new rule applies to activities in the Gulf of Mexico and Chukchi and Beaufort Sea planning areas.

None of these regulatory changes address in any way BOEM's obligations to prepare five-year leasing programs or hold lease sales; nor do they improve the manner in which BOEM evaluates and approves exploration plans.<sup>32</sup> The regulations that govern these phases of the OCSLA process remain essentially unchanged from their initial promulgation more than three decades ago.<sup>33</sup> They have not kept pace with changes in the industry. They fail to provide effective guidance, reflect new agency culture, incorporate updated analytical methodologies, or conform to modern policy priorities.

There have been repeated calls for fundamental reform of DOI's regulations. Both the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling (National Commission) and Council on Environmental Quality (CEQ) have urged reform of planning and leasing regulations.<sup>34</sup> DOI has the authority to make changes that would substantially improve decision-making. Updates to BOEM's regulations could: help address the disconnect between the old regulations and the new agency culture; remedy substantive problems that plague existing planning, leasing, and exploration processes; and more effectively implement new policy direction.<sup>35</sup> In addition, new rules could have the salutary benefit of providing certainty to oil companies. Echoing similar statements from ConocoPhillips and Statoil, Shell placed some of the blame for its withdrawal from the Arctic Ocean on an uncertain regulatory environment.<sup>36</sup> Clarifying the planning, leasing, and exploration plan approval processes could provide a measure of certainty.

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(proposed Mar. 17, 2016) (to be codified at 30 C.F.R. pt. 550) (Fed. Reg. notice forthcoming), <http://www.boem.gov/Air-Quality-Proposed-Rule/>.

31. Consolidated Appropriations Act, 2012 Pub. L. No. 112-74, § 432(b), 125 Stat. 1048-49 (2011).

32. Arguably, the proposed Arctic regulations and air emission rule could affect the equipment companies are required to have and the standards for spill response and air emissions to which companies are held during exploration. They do not, however, reflect a comprehensive review of those regulations or address the more systemic deficiencies identified here.

33. LeVine, Hartsig & Clements, *supra* note 1, at 237-38.

34. *Id.* at 243-47.

35. *Id.* at 254-58.

36. See Press Release, Shell Global, *supra* note 3 (noting "the challenging and unpredictable federal regulatory environment in offshore Alaska").

## II. RECOMMENDED REGULATORY REFORMS

There is both need and opportunity to update BOEM's regulations. Here, we explain the nature of some of the changes that would help modernize these rules. Part A of this section suggests overarching reforms needed to address problems that occur throughout the OCSLA process. Parts B, C, and D recommend more specific reforms to the regulations that govern development of five-year OCS oil and gas leasing programs, sale of OCS leases to oil and gas companies, and review of exploration drilling proposals.

For several reasons, we do not recommend specific language or address individual regulatory provisions that should be revisited. As was made clear in our earlier Article, the regulations governing planning, leasing, and permitting exploration are sufficiently inadequate so as to require fundamental change. Because the rules should be reconceived and rebuilt to implement OCSLA effectively, we focus on key themes that, if addressed properly, will improve the fundamental regulatory process and lead to better management outcomes. Specific regulatory language can be developed as the agency crafts new rules.

### A. Overarching Reforms

Some regulatory shortcomings affect all stages of the OCSLA process or reoccur in different ways throughout BOEM's planning, leasing, and exploration regulations. Meaningful reform would address these overarching problems systemically at each phase of the process.

1. *Clarify and Improve the Use of National Environmental Policy Act Analyses in Management of the OCS*

Unlike other federal agencies, BOEM does not have its own guidance or regulations defining the way in which it fulfills its National Environmental Policy Act (NEPA) obligations.<sup>37</sup> The lack of specific guidance has contributed to calls from the National Commission, CEQ, and others for reform of the manner in which DOI addresses its NEPA

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37. See, e.g., NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING—REPORT TO THE PRESIDENT 261 (2011) (noting that BOEM's predecessor agencies never developed formal NEPA guidance) [hereinafter NAT'L COMM'N, DEEP WATER]. In contrast, for example, the Bureau of Land Management and U.S. Fish and Wildlife Service have handbooks providing NEPA guidance. See generally BUREAU OF LAND MGMT., NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK H-1790-1 (2008); U.S. FISH & WILDLIFE SERV., NEPA FOR NATIONAL WILDLIFE REFUGES: A HANDBOOK (2014).

obligations with regard to OCS activities.<sup>38</sup> In addition, BOEM's compliance with NEPA has been the subject of a series of lawsuits that highlight the value of fundamental review.<sup>39</sup> Addressing these problems through new regulations will help BOEM better comply with its NEPA obligations, make better use of public expertise and input, and reach more robust decisions.

Effective regulations would clarify the way in which BOEM complies with NEPA requirements at each stage of the OCSLA process. As CEQ put it, BOEM should "[e]nsure that NEPA analyses fully inform and align with substantive decisions at all relevant decision points."<sup>40</sup> The problematic manner in which BOEM has approached NEPA compliance is particularly evident with regard to Chukchi Sea Lease Sale 193. The Environmental Impact Statement (EIS) underlying the decision to hold the sale was invalidated by the federal district court in Alaska on the grounds that the government failed to comply with a CEQ regulation addressing missing scientific information.<sup>41</sup> On remand, the agency addressed that issue but did not fix a fundamental problem with the scenario it used to evaluate the potential impacts from development even though that problem had been identified in public comments on the original EIS and Supplemental EIS. The Ninth Circuit Court of Appeals then invalidated the Supplemental EIS.<sup>42</sup> BOEM prepared a Second Supplemental EIS, and a subsequent Office of Inspector General Report identified a series of problems with the manner in which that analysis was prepared.<sup>43</sup> That Second Supplemental EIS has also been

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38. See LeVine, Hartsig & Clements, *supra* note 1, at 245. DOI's own Inspector General has identified problems with NEPA compliance and called for the agency to "[e]xplore and encourage other processes, policies, and incentives that promote a culture of balanced stewardship and evaluate existing policies and practices that may impede the ability to achieve this balance." OFFICE OF THE INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, A NEW HORIZON: LOOKING TO THE FUTURE OF THE BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT 35 (Dec. 7, 2010), <https://www.doioig.gov/sites/doioig.gov/files/A-New-Horizon-Public.pdf>.

39. See, e.g., LeVine, Van Tuyn & Hughes, *supra* note 4, at 1328-30, 1342-43 (describing NEPA-related litigation stemming from DOI's sale of OCS lease tracts in the Chukchi Sea).

40. COUNCIL ON ENVTL. QUALITY [CEQ], REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 4 (Aug. 16, 2010) [hereinafter CEQ, MMS NEPA POLICIES].

41. *Native Vill. of Point Hope v. Salazar*, 730 F. Supp. 2d 1009, 1018 (D. Alaska 2010).

42. *Native Vill. of Point Hope v. Jewell*, 740 F.3d 489, 505 (9th Cir. 2014).

43. OFFICE OF INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, INVESTIGATIVE REPORT OF MANAGEMENT INTERFERENCE WITH LEASE SALE 193 (Dec. 7, 2015), [https://www.doioig.gov/sites/doioig.gov/files/WebRedacted\\_MgmtInterfere](https://www.doioig.gov/sites/doioig.gov/files/WebRedacted_MgmtInterfere)

challenged in court.<sup>44</sup>

An important part of meeting NEPA obligations is ensuring that BOEM uses “tiering” appropriately and effectively. Tiering occurs when an agency relies on or incorporates analysis from a broader NEPA document in subsequent analyses.<sup>45</sup> Proper use of tiering can help avoid repetition in NEPA documents that analyze different stages of the OCSLA process. Improper use of tiering, however, can result in insufficient analysis and review.<sup>46</sup> In the wake of the *Deepwater Horizon* disaster, CEQ recommended that BOEM “reexamine its NEPA implementation policies to ensure that its use of tiering is both clear and well-defined, and is not being used to limit site-specific environmental analysis.”<sup>47</sup> Similarly, the National Commission recommended that BOEM develop “guidelines for applying NEPA in a consistent, transparent, and appropriate manner to decisions affecting OCS oil and gas activities.”<sup>48</sup>

Regulations could help define when preparation of a new or supplemental EIS is required. At the exploration stage, for example, significant new information about projected impacts would necessitate a supplemental EIS. This situation is especially likely to arise in frontier areas or when operators intend to use new technologies. Regulations should also make clear that exploration activities do not qualify for categorical exclusion from the NEPA process.

To further this effort, BOEM can help define the rigorous cumulative impact analyses needed in an EIS to avoid the potential for geographic or temporal segmentation. These regulations could improve analyses by providing context-specific standards and methods to ensure that agency staff has the direction necessary to consistently produce high-quality cumulative impact analyses. Similarly, BOEM should require a full assessment of the effects of exploration and development in site-specific lease sale EISs before OCS leases are sold. Doing so would help fulfill NEPA’s purpose of “looking before you leap.”<sup>49</sup>

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nce\_Lease193EIS.pdf.

44. Plaintiffs’ Opening Brief at 1, *Alaska Wilderness League v. Jewell*, 1:08-cv-00004-RRB (D. Alaska Aug. 28, 2015).

45. CEQ, Memorandum on Effective Use of Programmatic NEPA Reviews 7-9 (Dec. 18, 2014).

46. NAT’L COMM’N, *DEEP WATER*, *supra* note 37, at 260 (noting that “[a]s applied by MMS . . . tiering was not always consistent with its original purpose: instead, it created a system where deeper environmental analysis at more geographically targeted and advanced planning stages did not always take place.”).

47. CEQ, *MMS NEPA POLICIES*, *supra* note 40, at 23.

48. NAT’L COMM’N, *DEEP WATER*, *supra* note 37, at 261.

49. See, e.g., William J. Snape III, *Joining the Convention on Biological Diversity: A Legal and Scientific Overview of Why the United States Must Wake Up*, 10

New regulations would provide the opportunity to codify explicitly the requirement to analyze low-probability, high-risk events to help ensure that the agency and other stakeholders are prepared for a worst-case disaster. After the *Deepwater Horizon* tragedy, CEQ recommended that BOEM “take steps to incorporate catastrophic risk analysis going forward.”<sup>50</sup> Likewise, the National Commission recommended that BOEM “incorporate the ‘worst-case scenario’ calculations from industry oil spill response plans into NEPA documents and other environmental analyses or reviews” to inform the agency’s “estimates for potential oil spill situations in its environmental analyses.”<sup>51</sup> To its credit, BOEM incorporated a “very large oil spill” risk analysis in its supplemental EISs for Chukchi Sea Lease Sale 193.<sup>52</sup> New NEPA regulations would ensure that this type of risk is considered in all future OCS environmental analyses.

Some of the other changes suggested below—for example, rethinking the manner in which BOEM interprets the thirty-day deadline for review of an exploration plan—would affect the manner in which BOEM fulfills its NEPA obligations.<sup>53</sup> Addressing these issues through a comprehensive rulemaking would help provide consistency and clarity.

## 2. Increase Transparency

BOEM regulations can be revised to improve transparency and public participation in OCS decision-making processes. As President Obama stated on his first day in office, “[o]penness will strengthen our democracy and promote efficiency and effectiveness in Government.”<sup>54</sup> This principle is particularly important as public scrutiny of offshore oil and gas activities has grown in the wake of the *Deepwater Horizon* accident and Shell’s failed 2012 drilling season, and as the need to take action to address greenhouse gas emissions is increasingly recognized.<sup>55</sup>

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SUSTAINABLE DEV. L. & POL’Y 6, 10 (2010) (characterizing NEPA as “the epitome of a ‘look before you leap’ mandate”).

50. CEQ, MMS NEPA POLICIES, *supra* note 40, at 27.

51. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 267.

52. BOEM ALASKA OCS REGION, OIL AND GAS LEASE SALE 193 IN THE CHUKCHI SEA, ALASKA: FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT VOL. I, APPENDIX D (2011).

53. See *infra* III.D.1.

54. Memorandum on Transparency and Open Government, 2009 DAILY COMP. PRES. DOC. 1 (Jan. 21, 2009).

55. Indeed, drilling for oil and gas in the Arctic Ocean became a campaign issue for some presidential candidates even in the early stages of the 2016 race. See, e.g., Alan Rappoport, *Disagreeing with President, Hillary Clinton Says She Opposes Drilling in Arctic Ocean*, N.Y. TIMES (Aug. 18, 2015). The issue also

Transparency with respect to management of OCS activities can help the American public be assured that it is receiving fair market value for any OCS energy production and that the risks of any oil spills or other negative externalities are being fairly evaluated and considered.<sup>56</sup>

To implement the president's commitment to open government, federal agencies were directed to take three important steps: publish information online; improve the quality of government information; and create and institutionalize a culture of open government.<sup>57</sup> DOI has created and updated an Open Government Plan through which it has taken some important steps to further transparency related to OCS activities.<sup>58</sup> Notably, the United States has spent more than three years working toward implementation of the Extractive Industries Transparency Initiative (EITI), "a global standard that promotes revenue transparency and accountability in the extractive sector" by requiring "report[s] in which governments and companies publicly disclose royalties, rents, bonuses, taxes and other payments from oil, gas, and mineral resources."<sup>59</sup> DOI has gone beyond the requirements of EITI and is planning to publish all revenue data collected by the ONRR from extractive companies operating on federal lands.<sup>60</sup>

In addition, DOI has participated in the creation of data.gov, which provides high quality data sets for public use,<sup>61</sup> and the agency is working to revamp BSEE's website to make it more user-friendly and accessible. With regard to exploration operations in the Arctic Ocean, BOEM allowed for public comments on the NEPA process related to

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prompted twelve U.S. Senators to send a letter urging President Obama not to authorize drilling in the Arctic Ocean. *See* Letter from Jeffrey Merkley, et al., United States Senators to Barack Obama, President of the United States (Sept. 25, 2015), <http://www.sanders.senate.gov/download/sanders-whitehouse-on-arctic-drilling-?inline=file>.

56. *See* 43 U.S.C. § 1344(a)(4) (2012) (requiring that "[l]easing activities . . . be conducted to assure receipt of fair market value for the lands leased and the rights conveyed by the Federal Government."). *See also* JAYNI FOLEY HEIN, INST. FOR POLICY INTEGRITY, HARMONIZING PRESERVATION AND PRODUCTION: HOW MODERNIZING THE DEPARTMENT OF THE INTERIOR'S FISCAL TERMS FOR OIL, GAS, AND COAL LEASES CAN ENSURE A FAIR RETURN TO THE AMERICAN PUBLIC 7 (June 2015) (discussing the fair market value requirement for offshore energy production) [hereinafter FOLEY HEIN, HARMONIZING PRESERVATION].

57. Peter R. Orszag, Memorandum for the Heads of Executive Departments and Agencies: Open Government Directive, M-10-06, 2-4 (Dec. 8, 2009).

58. DEP'T OF THE INTERIOR, OPEN GOVERNMENT PLAN 3.0 (June 2014).

59. DEP'T OF THE INTERIOR, U.S. EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE FACT SHEET 1 (Feb. 2015).

60. U.S. EXTRACTIVE INDUS. TRANSPARENCY INITIATIVE, EITI ANNUAL ACTIVITY REPORT 2014 2, 7-8 (June 30, 2015), [https://eiti.org/files/usa\\_2014\\_annual\\_activity\\_report\\_aar.pdf](https://eiti.org/files/usa_2014_annual_activity_report_aar.pdf).

61. *See generally* *About Data.gov*, DATA.GOV, <http://www.data.gov/about#collected> (last visited Mar. 24, 2016).

Shell's exploration plan and approval of its oil spill response plan, and BSEE made public the letters denying requests for suspensions of operations on Chukchi and Beaufort Sea leases.<sup>62</sup> There is no formal requirement for such comment periods, and BSEE has not made letters like these public in the past.

Using the notice-and-comment rulemaking process to formalize practices that promote transparency and openness will help build trust, improve public participation in the decision-making process, and fulfill President Obama's pledge to ensure openness in government.<sup>63</sup> New regulations could require that federal regulators post on their websites—in a proactive and timely fashion—all non-privileged information related to exploration activities, including permitting, inspections, monitoring, and enforcement. For example, regulations should require BOEM and BSEE to post on their websites proposed plans and plan revisions, requests for modification, approvals, and similar documents. In addition, BOEM and BSEE could be required to make available to the public information on monitoring and enforcement activities, as well as data concerning incidents and near-misses, including causal information.

Transparency and public participation also would be improved by regulations designed to ensure that the public has an opportunity to review and provide feedback on all non-confidential aspects of exploration plans. While public notice and comment is already required in any EIS process, BOEM can ensure that all agency environmental assessments (EAs), including those related to the evaluation of OCS exploration plans, are available for public notice and comment. Addressing these issues systematically in BOEM's planning, leasing, and exploration regulations would help ensure better decisions,

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62. Press Release, BOEM, BOEM Invites Public Comment to Inform Environmental Assessment and Analysis of Chukchi Sea Exploration Plan (Apr. 10, 2015); BSEE, Letter of Response to Statoil Suspension of Operations Request (Oct. 16, 2015); BSEE, Letter of Response to Shell Suspension of Operations Request (Oct. 16, 2015).

63. Organizations seeking information from DOI related to OCS activities have historically been required to submit requests pursuant to the Freedom of Information Act (FOIA). This process, though important, can be cumbersome for both the requestor and government agency. It has led to litigation and inefficiency. *See* Amended Complaint for Declaratory and Injunctive Relief at 1, Nat. Res. Defense Council v. Mineral Mgm't Serv., 1:08-cv-00936-BSJ-GWG (S.D.N.Y. 2008) (alleging violations of the FOIA by the Minerals Management Service); Complaint for Declaratory and Injunctive Relief at 3, Alaska Wilderness League v. Bureau of Ocean Energy Mgm't, 1:13-cv-00586 (D.D.C. 2013) (alleging violations of the FOIA by the BOEM). Increasing publicly available information should not displace FOIA obligations, but it could eliminate the inefficiencies that result when the agency requires FOIA requests for non-privileged information that could simply be made available.

accountability, and public participation.

3. *Ensure Effective Incorporation of Traditional, Local, and Indigenous Knowledge*

Regulations governing OCS oil and gas activities do not explicitly ensure incorporation of traditional, local, and indigenous knowledge into the decision-making process. This deficiency is particularly significant in the U.S. Arctic, where Alaska Natives may have information about geographic areas or resources that is otherwise unavailable to agency decision-makers.<sup>64</sup> In his Executive Order addressing coordination in the Arctic, President Obama specifically recognized that, as part of responsibly managing resources in the Arctic region, “we must rely on science-based decision-making and respect the value and utility of the traditional knowledge of Alaska Native peoples.”<sup>65</sup> Similarly, the National Ocean Policy implementation plan calls on federal agencies to integrate “traditional ecological knowledge and scientific data collected by indigenous groups.”<sup>66</sup> A federal interagency working group recommended improving “decision-makers’ access to integrated scientific information and traditional knowledge relevant to management in the Arctic.”<sup>67</sup> While these policies represent progress, they are not codified in BOEM’s regulations.

Promulgating regulations establishing a set of procedures to solicit and incorporate traditional knowledge will facilitate efficient flow of information between local and indigenous knowledge-holders and agency officials; improved regulations should also help ensure that federal agencies fully consider traditional knowledge in the decision-making process. Collection of relevant information from local and indigenous knowledge-holders will also help ensure that local concerns are heard from the outset, which may avoid complications later in the process. Effective guidance and mechanisms for this participation have the potential to improve products, decisions, and community relations.<sup>68</sup>

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64. Henry P. Huntington, *Using Traditional Ecological Knowledge in Science: Methods and Applications*, 10 *ECOLOGICAL APPLICATIONS* 1270, 1270 (2000).

65. Exec. Order No. 13,689, 80 Fed. Reg. 4,191 (Jan. 21, 2015).

66. NAT’L OCEAN COUNCIL, NATIONAL OCEAN POLICY IMPLEMENTATION PLAN 21 (Apr. 2013).

67. INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC: A REPORT TO THE PRESIDENT 47 (Mar. 2013).

68. See Huntington, *supra* note 64, at 1273 (concluding that traditional ecological knowledge “has made a demonstrable difference in many research projects and management strategies”).



#### 4. Formalize and Codify Efforts to Improve Interagency Coordination

BOEM regulations could formalize a strong interagency consultation process for OCS oil and gas decision-making. OCSLA specifically mandates that, “[i]n the enforcement of safety, environmental, and conservation laws and regulations, the Secretary shall cooperate with the relevant departments and agencies of the Federal Government and of the affected States.”<sup>69</sup> However, the planning, leasing, and exploration plan approval regulations set out no specific mechanisms for such cooperation.

The need for more effective coordination has been widely recognized. The National Commission recommended that the National Oceanic and Atmospheric Administration (NOAA) “and other federal agencies with appropriate expertise should be encouraged to act as cooperating agencies in NEPA reviews of offshore energy production activities, including exploration and development plans and drilling permit applications.”<sup>70</sup> It also recommended that “[f]ederal agencies that submit comments to [BOEM] as part of a NEPA process should receive a written response indicating how the information was applied and if it was not included, why it was not included.”<sup>71</sup> More recently, a review of Shell’s troubled 2012 offshore drilling program in Alaska recognized the importance of “close coordination among government agencies in the permitting and oversight process.”<sup>72</sup>

Better rules defining processes for interagency coordination should lead to more informed decisions and may help avoid the appearance that input from expert agencies has not been effectively considered.<sup>73</sup> Some steps have been taken in this direction. For example, NOAA acted as a cooperating agency on a recent BOEM-led Programmatic EIS to assess geological and geophysical activities in the Mid and South Atlantic Ocean planning areas.<sup>74</sup> More generally, NOAA and BOEM signed a Memorandum of Understanding to ensure that OCS decision-

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69. 43 U.S.C. § 1334(a).

70. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 265.

71. *Id.*

72. U.S. DEP’T OF THE INTERIOR, REPORT TO THE SECRETARY OF THE INTERIOR: REVIEW OF SHELL’S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM 5 (Mar. 8, 2013).

73. Letter from James W. Balsiger, Acting Assistant Adm’r, NOAA, to James Kendall, Acting Reg’l Dir., BOEM (Feb. 28, 2011), <https://alaskafisheries.noaa.gov/sites/default/files/chukchiseaoilgas.pdf>.

74. See BOEM, ATLANTIC OCS PROPOSED GEOLOGICAL AND GEOPHYSICAL ACTIVITIES MID-ATLANTIC AND SOUTH ATLANTIC PLANNING AREAS: FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT 1-9 (2014) (noting that NOAA requested and was granted cooperating agency status).

making is science-based and fulfills both agencies' stewardship and conservation mandates.<sup>75</sup> More broadly still, President Obama established an interagency "National Ocean Council" to advance a "collaborative framework" for ocean and coastal stewardship and to "facilitate[ ] cohesive actions across the Federal Government."<sup>76</sup>

In the Arctic, President Obama has recognized the need for more effective agency cooperation and created "an Arctic Executive Steering Committee . . . which shall provide guidance to executive departments and agencies . . . and enhance coordination of Federal Arctic policies across agencies and offices, and, where applicable, with State, local, and Alaska Native tribal governments and similar Alaska Native organizations, academic and research institutions, and the private and nonprofit sectors."<sup>77</sup> In addition, in 2011, the President created the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska, which was charged with coordinating "the efforts of Federal agencies responsible for overseeing the safe and responsible development of onshore and offshore energy resources and associated infrastructure in Alaska."<sup>78</sup>

BOEM can explicitly codify the manner in which it takes advantage of these and other mechanisms for coordination. Doing so would ensure that the coordination is implemented and continued through future administrations. In that way, the benefits of cooperation and coordination would become part of the long-term planning for the OCS.

## B. Five-Year Program

In the five-year planning process, BOEM determines which areas of the OCS will be available for oil and gas leasing, and it schedules lease sales during the relevant five-year period. The plan, therefore, is the initial, broadest-scale step at which the government decides whether large swaths of the ocean will be made available for leasing to companies.

The regulations governing BOEM's five-year OCS leasing program, however, largely mirror the relevant statutory directives. For example, OCSLA Section 18 requires the Secretary of the Interior to "invite and

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75. U.S. DEP'T OF THE INTERIOR & U.S. DEP'T OF COMMERCE, Memorandum of Understanding on Coordination and Collaboration Regarding Outer Continental Shelf Energy Development and Environmental Stewardship (May 19, 2011), [http://www.noaanews.noaa.gov/stories2011/pdfs/05232011\\_NOAA-BOEMRE-MOU.pdf](http://www.noaanews.noaa.gov/stories2011/pdfs/05232011_NOAA-BOEMRE-MOU.pdf).

76. Exec. Order No. 13,547, 75 Fed. Reg. 43,023, 43,024 (July 19, 2010).

77. Exec. Order No. 13,689, 80 Fed. Reg. 4,189, 4,191 (Jan. 26, 2015).

78. Exec. Order No. 13,580, 76 Fed. Reg. 41,989, 41,989 (July 15, 2011).

consider suggestions” for the five-year program from a variety of entities; the implementing regulations merely restate that requirement, instructing the Secretary to “invite and consider suggestions” from the same entities.<sup>79</sup> The five-year program regulations offer no substantive direction to agency staff or decision-makers and little guidance about how to best satisfy the broad statutory mandate to craft a schedule of oil and gas lease sales that will best meet national energy needs while balancing the potential for environmental damage, discovery of oil and gas, and adverse impacts on the coastal zone.<sup>80</sup> It is, perhaps, no coincidence that the five-year leasing program process has been subject to significant controversy, and a substantial number of the programs promulgated by DOI have been challenged in court.<sup>81</sup> Several of these challenges have been successful.<sup>82</sup> BOEM has the discretion under existing law to revise the regulations governing the preparation of five-year OCS oil and gas leasing programs so that they provide useful guidance.

1. *More Effective Description of the Factors to be Considered Under OCSLA Section 18(a)(2)*

OCSLA Section 18(a)(2) specifies that the “[t]iming and location of exploration, development, and production of oil and gas among the oil- and gas-bearing physiographic regions of the [O]uter Continental Shelf shall be based on a consideration of” nine enumerated factors.<sup>83</sup> There is, however, no meaningful regulatory interpretation of the manner in which the agency should evaluate these factors. Some of the factors are considered quantitatively, others only qualitatively. More specific regulatory guidance would foster more consistent and transparent decisions and would help prevent uncertainty and controversy.

For example, Section 18(a)(2)(B) requires consideration of “an equitable sharing of developmental benefits and environmental risks among the various regions.”<sup>84</sup> BOEM seeks to meet this obligation using

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79. Compare 43 U.S.C. § 1344(c)(1) (2012) with 30 C.F.R. § 556.16(a) (2012).

80. 43 U.S.C. § 1344(a).

81. See, e.g., LeVine, Van Tuyn & Hughes, *supra* note 4, at 1315, 1317, 1323, 1342 (describing legal challenges to five-year OCS leasing programs issued in 1980, 1982, 1986, 2007, and 2012). See also U.S. DEP’T. OF THE INTERIOR, BOEM, OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROPOSED PROGRAM 2017–2022 2-7, 2-8 (2016) (describing legal challenges) [hereinafter BOEM, PROPOSED PROGRAM 2017–2022].

82. See, e.g., BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 2-7 to 2-8 (describing legal challenges).

83. § 1344(a)(2).

84. *Id.* § 1344(a)(2)(B).

a net benefits calculation.<sup>85</sup> However, the manner in which BOEM has undertaken this calculation has not always been transparent, which has resulted in allegations that the agency obscured the specific costs faced by individual regions and in legal challenges.<sup>86</sup> Regulations could define the factors and data the agency will consider in its “equitable sharing” calculus, require transparent disclosure of the gross costs and benefits experienced by each individual region (as well as onshore regions) of various leasing or “no sale” options, and establish guidelines for the net benefits calculation that would draw on the best available scientific and economic information.

Similarly, OCSLA Section 18(a)(2)(G) requires BOEM to consider “the relative environmental sensitivity and marine productivity of different areas of the [O]uter Continental Shelf.”<sup>87</sup> In developing the 2007–2012 five-year program, BOEM relied entirely on one study of coastal areas to meet this obligation. This approach was eventually invalidated by the U.S. Court of Appeals for the D.C. Circuit.<sup>88</sup> Regulations that more explicitly define how to consider “relative environmental sensitivity and marine productivity” would help BOEM carry out its legal mandate more effectively.

2. *Better Direction for the Balancing Required Under OCSLA Section 18(a)(3)*

OCSLA Section 18(a)(3) requires the Secretary to “select the timing and location of leasing, to the maximum extent practicable, so as to obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>89</sup> The agency has interpreted this obligation as a balance among the nine factors enumerated in Section 18(a)(2).

At present, there are no regulations to help BOEM find the right balance between the risk of harm to the environment and potential

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85. See, e.g., U.S. DEP’T. OF THE INTERIOR, BOEM, PROPOSED FINAL OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM 2012–2017 116–19 (June 2012) (explaining BOEM’s “benefit-cost analysis”) [hereinafter BOEM, PROPOSED FINAL PROGRAM 2012–2017]. See also BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 8-1 to 8-25 (explaining BOEM’s “equitable sharing considerations”).

86. See, e.g., *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588 (D.C. Cir. 2015); *Ctr. for Biological Diversity, et al. v. Dep’t of the Interior*, 563 F.3d 466 (D.C. Cir. 2009).

87. § 1344(a)(2)(G).

88. See *Ctr. for Biological Diversity*, 563 F.3d at 489 (requiring more complete analysis to identify most and least sensitive environmental areas).

89. § 1344(a)(3).

benefits from the pursuit of oil and gas. As a result, when explaining its approach to balancing in the 2012–2017 five-year program, BOEM has resorted to quoting extensively from the D.C. Circuit’s opinions evaluating challenges to its earlier balancing efforts.<sup>90</sup> Instead of reacting to court challenges, BOEM should promulgate its own regulations to provide guidance and standards that promote consistency and ensure compliance with the statute’s balancing mandate.

At times, BOEM has balanced its Section 18(a) considerations through a cost-benefit analysis, an approach endorsed by the D.C. Circuit<sup>91</sup> and arguably required by Executive Orders.<sup>92</sup> At the same time, BOEM has also asserted that Section 18(a)(3) balancing cannot be reduced to a formula:

[s]triking this balance based on a consideration of the principles and factors enumerated in section 18(a) is a matter of judgment for which no ready formula exists. Section 18 requires the consideration of a broad range of principles and factors rather than imposing an inflexible formula for making decisions.<sup>93</sup>

Even if an “inflexible formula” is not appropriate, the critical balancing would nonetheless benefit from regulatory guidance. Effective regulations could require consideration of specific factors and the use of certain methods that would help decision-makers as they evaluate and balance the relevant information. For example, when considering the potential for environmental damage or adverse impacts on the coastal zone, regulations could require BOEM to consider factors including, but not limited to:

- the degree to which scientists understand the marine ecosystem and its capacity to absorb impacts that could result from OCS development;
- the presence or absence of unique or endemic species that could be affected by OCS oil and gas operations;
- other stressors, beyond new oil and gas activity, that affect ecosystem functioning or resilience; and
- the degree to which spill response operations could be

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90. BOEM, PROPOSED FINAL PROGRAM 2012–2017, *supra* note 85, at 191–93.

91. State of Cal. By & Through Brown v. Watt, 668 F.2d 1290, 1317–18 (D.C. Cir. 1981) (finding it “reasonable to conclude that within the section’s proper balance there is some notion of ‘costs’ and ‘benefits’”).

92. Michael A. Livermore, *Patience is an Economic Virtue: Real Options, Natural Resources, and Offshore Oil*, 84 U. COLO. L. REV. 581, 627 (2013).

93. *Id.* at 588. In the Proposed 2017–2022 Program, BOEM similarly states, “[OCSLA] does not specify what the balance should be or how the factors should be weighed to achieve that balance, leaving to the Secretary the discretion to reach a reasonable determination under the existing circumstances.” BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 2–5.

precluded by adverse environmental or weather conditions.

Regulatory interpretation of Section 18(a)(3) that requires consideration or use of particular factors or methods would help remove at least some of the uncertainty that has plagued past balancing efforts.

3. *Provide Direction on When and How to Account for Option Value in the Planning and Leasing Process*

Regulations should also mandate consideration of option value in the five-year planning process and describe how to conduct this analysis. In this setting, option value means the value of waiting for more information on energy prices and extraction risks before deciding whether or when to offer for lease the public's energy resources to private companies.<sup>94</sup> The concept's most familiar application is in the financial markets, where investors calculate the value of options to wait for more information on stock prices before deciding whether to buy or sell shares.<sup>95</sup> The same methodology can be applied to "environmental, social, and technological uncertainties."<sup>96</sup>

Option value is applicable to the decisions made at the five-year planning stage, as well as the lease sale stage (as described below). At the planning stage, BOEM can account for differences in environmental and social uncertainties among the OCS regions to allow for more effective regional comparisons.<sup>97</sup>

In fact, BOEM's failure to consider option value at the planning stage was one of the subjects of a challenge to the agency's 2012–2017 five-year program.<sup>98</sup> In that case, the petitioner argued that OCSLA required BOEM to explicitly consider and quantify the option value of delaying leasing in specific regions of the OCS. The D.C. Circuit ultimately upheld the 2012–2017 program, finding that quantification techniques were "not yet so well established that [BOEM] was required to use them" in the planning process. However, the court recognized that there is "a tangible present economic benefit to delaying the decision to drill for fossil fuels to preserve the opportunity to see what new technologies develop and what new information comes to light."<sup>99</sup> The D.C. Circuit's ruling "strongly suggests that future advancements in option value research could compel the agency to better quantify the

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94. Livermore, *supra* note 92, at 627.

95. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 13.

96. *Id.*

97. See 43 U.S.C. § 1344(a)(2)(G) (requiring consideration of relative sensitivity of different areas of the OCS).

98. *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588, 610 (D.C. Cir. 2015).

99. *Id.*

option value associated with its leasing practices, which could pay enormous dividends to the American people by prioritizing lower-risk leasing and securing more favorable financial terms.”<sup>100</sup>

BOEM recognized the importance of a more robust discussion of option value in its most recent proposed five-year program. For the first time, the agency includes some qualitative discussion of option value.<sup>101</sup> However, it stopped short of a full quantitative analysis of the value of waiting for more information on oil prices and environmental costs before scheduling lease sales.<sup>102</sup>

It is notable that BOEM adjusted its analysis to reflect the best available information and economic tools. The fact that the agency had to be challenged in court to do so, however, underscores the advantages that could be gained by crafting effective regulations that encourage or require the use of the best available analytical tools.

#### 4. *Require Identification of Important Marine Areas and Adequate Baseline Scientific Information*

To ensure that decision-makers have a strong understanding of the ocean environments that may be affected by their choices, BOEM’s regulations should guarantee that certain information is available before an area can be included in a five-year program. At the broadest level, the availability of specific baseline scientific information will ensure informed decision-making. For example, a quantitative understanding of the marine environment, including robust food web models and identified important ecological areas, will help more fully evaluate choices about the potential effects of oil and gas operations on the OCS. Regulations should specify that, unless and until such data is available for a given area of the OCS, that area should not be made available for leasing in a five-year program.

In addition, at the five-year program stage, identification of important marine areas within each region, as well as measures necessary to preserve the integrity and function of those important areas, will help ensure good planning decisions. Important marine areas may include areas of high productivity or diversity; areas that are important for feeding, migration, or the lifecycle of species; areas of biogenic habitat, structure forming habitat, or habitat for endangered or threatened species; or areas important for subsistence purposes. If

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100. Comments from Jayni Foley Hein, et. al., Inst. for Pol’y Integrity at NYU School of Law, to BOEM (Mar. 30, 2015), [http://policyintegrity.org/documents/Comments\\_to\\_BOEM\\_2017-2022\\_Offshore\\_Program.pdf](http://policyintegrity.org/documents/Comments_to_BOEM_2017-2022_Offshore_Program.pdf).

101. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at 10-2 to 10-13.

102. *Id.*

necessary to preserve ecological integrity and functioning, regulations should require that important marine areas be excluded from the five-year program.

President Obama has recognized the value of this approach. In January 2015, he signed a Presidential Memorandum withdrawing from oil and gas leasing several important areas in the U.S. Arctic Ocean: Hanna Shoal, Barrow Canyon, a 25-mile buffer along the Chukchi coast, and two smaller subsistence-use areas in the Beaufort Sea.<sup>103</sup> In issuing this memorandum, the President exercised his authority under OCSLA Section 12(a).<sup>104</sup>

BOEM has built on this approach in the Proposed 2017-2022 Program. The agency has identified a series of “Environmentally Important Areas,” in the Beaufort and Chukchi Seas.<sup>105</sup> The agency has identified particular values of these areas and intends the evaluation in the program and accompanying EIS “to serve as a foundation to inform future analysis and related leasing decisions concerning these environmentally important areas.”<sup>106</sup> Regulations specifically requiring protection of disproportionately important areas would continue this momentum and ensure that BOEM takes proactive steps during the five-year planning process to protect such areas.<sup>107</sup>

Once important areas are identified, they must also be protected. Regulations, therefore, should impose specific, stringent precautions that must be in place before the sale of any OCS leases that could be reasonably expected to impact important marine areas. These rules would help protect areas in which leasing is prohibited and ensure the ongoing health of areas where leasing is not prohibited but where specific ecosystem functions merit other forms of protection. For example, operators could be required to locate exploration and development activities within lease blocks so that they minimize the potential for sound and other impacts to important areas. Requirements like these would help BOEM better meet its balancing obligations and ensure authorized activities will not harm the health and functioning of the marine ecosystem.

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103. Memorandum on the Withdrawal of Certain Areas of the United States Outer Continental Shelf Offshore Alaska from Leasing Disposition, 2015 DAILY COMP. PRES. DOC. 59 (Jan. 27, 2015).

104. *Id.*

105. BOEM, PROPOSED PROGRAM 2017-2022, *supra* note 81, at 4-1, 11-1 to 11-3.

106. *Id.*

107. *See, e.g.*, Stan Senner, et al., Comment Letter on 2017-2022 Proposed Oil and Gas Leasing Program and Environmental Impact Statement (Mar. 30, 2015), <http://www.regulations.gov/#!documentDetail;D=BOEM-2014-0096-14343>.



5. *Codify the “Targeted Approach” to OCS Leasing for Frontier Areas*

In its 2012–2017 program, BOEM introduced a “targeted approach” to OCS leasing in the U.S. Arctic Ocean.<sup>108</sup> BOEM has continued that approach in the Proposed 2017–2022 Program.<sup>109</sup> Instead of opening an entire program area to OCS leasing, BOEM’s targeted approach excludes areas of lower petroleum potential that have high environmental or ecological importance. BOEM can refine and codify this “targeted” approach to leasing in its five-year program regulations.

The area-wide leasing approach that BOEM has followed since the 1980s is not mandated by OCSLA or BOEM’s existing regulations. It is a relic of former Secretary of the Interior James Watt’s commitment to “lease one billion acres” offshore.<sup>110</sup> The area-wide approach, in which tens of millions of acres may be offered in single lease sales, makes effective environmental analysis very difficult, may limit competition, and seems to serve a limited political purpose for many areas in which there appears to be little industry interest or capability.

A targeted leasing approach has substantial benefits, and BOEM can take steps to codify it in regulation. Without a formal rulemaking, it is possible that future administrations would eliminate targeted leasing in the Arctic and continue area-wide leasing elsewhere. Exclusion of important marine areas to preserve ecological integrity and functioning, as described above, could be an important component of this approach. Currently, BOEM begins from the premise that an entire planning area will be included in the program and requires specific justification for removing areas. Regulations could reverse this premise and allow leasing only in areas in which potential benefits can be shown to outweigh risks. BOEM regulations could also consider placing an upper limit on the percentage of an OCS planning area that may be included in any one five-year leasing program.

Limiting the geographic scope of lease sales—for example by codifying BOEM’s “targeted approach” to leasing—would have the additional benefit of fostering more meaningful environmental NEPA analysis at the lease sale stage. It may also increase competition among companies for individual lease blocks.

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108. BOEM, PROPOSED FINAL PROGRAM 2012–2017, *supra* note 85, at 5-6.

109. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81, at S-5.

110. NAT’L COMM’N, DEEP WATER, *supra* note 37, at 63.

### C. Lease Sales

The regulations that apply to the lease sale stage of the OCSLA process have significant shortcomings. Several of the changes highlighted above—including those related to codifying the targeted leasing approach, defining areas to be excluded from leasing, and improving NEPA compliance—would substantially improve the regulations at this stage of the process as well. In addition, BOEM could take additional steps to modernize its OCS leasing regulations.

1. *Require Consideration of Option Value in Setting Fiscal Terms for Lease Sales*

In addition to accounting for option value during the planning stage, BOEM should account for the value of the government's option to wait to sell leases when setting minimum bids for lease tracts.<sup>111</sup> In its proposed program for 2017–2022, BOEM discusses the possibility of raising minimum bids in lease sales to account for option value. BOEM notes that raising the minimum bid may increase buyer selectivity, elevating “the efficiency of the lease sale process.”<sup>112</sup> BOEM's five-year program also includes a “hurdle price analysis,” an economic method used to calculate the tipping point for particular investments. At the program development stage, BOEM uses the hurdle price to identify areas that show current economic promise, while deferring other timing, composition, and sale design decisions to the lease sale stage.<sup>113</sup> For the first time, BOEM's proposed program for 2017–2022 added an estimate of the known environmental and social costs into the hurdle price calculation and now considers both the private and social costs of exploration and development in determining the hurdle price.<sup>114</sup> This is a positive step; however, BOEM's application of the hurdle-price analysis fails to account for environmental and social cost uncertainty, which is also relevant to optimal timing and would help ensure a more fair return to the public.<sup>115</sup>

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111. Livermore, *supra* note 92, at 630.

112. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81 at 10–20. *See also* FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 15 (discussing the need for BOEM to raise minimum bids).

113. BOEM, PROPOSED PROGRAM 2017–2022, *supra* note 81 at 10–13.

114. *Id.* at 10–12, 10–14.

115. *See* FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56 at 15–17; Comments from Jayni Foley Hein et al., Inst. for Pol'y Integrity at NYU School of Law, to BOEM (Mar. 30, 2015), [http://policyintegrity.org/documents/Comments\\_to\\_BOEM\\_2017-2022\\_Offshore\\_Program.pdf](http://policyintegrity.org/documents/Comments_to_BOEM_2017-2022_Offshore_Program.pdf) (“BOEM can calculate a ‘social hurdle price’ by modifying the agency's existing dynamic programming model to include

Promulgating regulations relating to economic analysis of OCS lease sales would clarify and modernize BOEM's analytical methods and have significant benefits for the agency. Updating regulations to account for option value would likely increase revenue to the federal government, make lease sales more equitable, and allow BOEM to prevent potential litigation.

2. *Promulgate Rent and Royalty Provisions that Account for Externalities*

Oil and gas operations result in significant air, water, and noise pollution, among other impacts. In addition, these activities can contribute both directly and indirectly to climate change, through "upstream" emissions associated with oil and gas operations and through "downstream" emissions from the burning of fossil fuels.<sup>116</sup> Often, companies do not pay for the full cost of these impacts—also known as externalities, or shared costs borne by third parties—because these costs do "not rise to the level of actionable legal claims,"<sup>117</sup> and other policy tools that could help internalize these costs, like a national carbon tax, are not currently in place. Cumulatively, however, these costs are significant and quantifiable.<sup>118</sup> For example, the Environmental Protection Agency (EPA) and other federal agencies use the social cost of carbon to estimate the climate benefits of rulemakings.<sup>119</sup> BOEM estimates that offshore leases under its 2012–2017 program could generate up to 148 million tons of carbon dioxide-equivalent emissions;<sup>120</sup> the current social cost of carbon is about \$40 per ton of greenhouse gases emitted in 2015.<sup>121</sup> Cumulatively, accounting for these

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externalities associated with drilling and the corresponding uncertainty underlying them . . .").

116. Jessica Goad & Matt Lee-Ashley, *The Clogged Carbon Sink: U.S. Public Lands Are the Source of 4.5 Times More Carbon Pollution Than They Can Absorb*, CTR. FOR AMERICAN PROGRESS (Dec. 5, 2013), <https://www.americanprogress.org/issues/green/news/2013/12/05/80277/the-clogged-carbon-sink-u-s-public-lands-are-the-source-of-4-5-times-more-carbon-pollution-than-they-can-absorb/>.

117. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 18.

118. *Id.*

119. U.S. ENVTL. PROT. AGENCY, *The Social Cost of Carbon* (last updated Dec. 11, 2015), <http://www3.epa.gov/climatechange/EPAactivities/economics/scc.html>.

120. U.S. DEP'T OF THE INTERIOR, BUREAU OF OCEAN ENERGY MGMT. OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM: 2012-2017 tbl. 4.4.4-2 (July 2012), [http://www.boem.gov/uploadedFiles/BOEM/Oil\\_and\\_Gas\\_Energy\\_Program/Leasing/Five\\_Year\\_Program/2012-2017\\_Five\\_Year\\_Program/2012-2017\\_Final\\_PEIS.pdf](http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/2012-2017_Final_PEIS.pdf).

121. INTERAGENCY WORKING GROUP ON THE SOCIAL COST OF CARBON, TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT

costs could generate billions of dollars that would help offset climate damages.

BOEM currently does not quantify or charge lessees for these costs. The agency, however, has authority to adjust its rent and royalty provisions to “account for impairment of recreational interests and environmental and social externalities.”<sup>122</sup> OCSLA contains no specific limit on BOEM’s ability to charge rent,<sup>123</sup> and the agency has not specified the manner in which it decides the rental rates for offshore leases. Similarly, OCSLA establishes a minimum royalty rate, but does not impose a ceiling on that rate.<sup>124</sup>

Addressing externalities and more fairly capturing costs is one of the driving factors behind the recently announced review of the federal coal program. Coal royalty rates are also set by regulation, and there is a direct parallel to oil and gas rent and royalty rates, especially as both programs are managed by DOI.

Clarifying the manner in which rental and royalty rates are established would help provide certainty and confidence that the public is receiving fair market value for its resources. In establishing more comprehensive rental and royalty rate regulations, BOEM could specify a methodology through which climate and other quantifiable externalities are paid by the lessee.<sup>125</sup>

#### D. Approval of OCS exploration plans.

1. *Change the Approach to OCSLA’s Thirty-Day Timeline for Approval of Exploration Plans that have been “Deemed Submitted”*

OCSLA requires BOEM to approve or deny an exploration plan within thirty days of the date on which the exploration plan is “deemed submitted” by the agency.<sup>126</sup> In the past, BOEM has followed a cramped interpretation of the statute’s 30-day deadline under which it has deferred NEPA analysis of exploration plans until after the agency has deemed the plan submitted. As a result, the agency has either rushed its effort to complete an EA in a short 30-day window<sup>127</sup> or has skipped

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ANALYSIS at 3 (2013) (giving the central estimate of \$38 per ton, in 2007 dollars, for emissions in the year 2015).

122. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 19.

123. *See* 43 U.S.C. § 1337(b)(6) (allowing the Secretary full discretion to prescribe rental provisions at the time the lease is offered).

124. *See id.* § 1337(a) (establishing minimum royalty rates); FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 20-23.

125. FOLEY HEIN, HARMONIZING PRESERVATION, *supra* note 56, at 20-23.

126. 43 U.S.C. § 1340(c).

127. *See, e.g.*, Press Release, Bureau of Ocean Energy Management, BOEM

NEPA analysis altogether using categorical exclusions.<sup>128</sup> BOEM's interpretation of the statutory time limit precludes effective environmental analysis and opportunity for meaningful public comment.

Under a more logical and careful approach, BOEM would complete appropriate NEPA analysis before it deems an exploration plan submitted.<sup>129</sup> Doing so would allow the time necessary to prepare a new or supplemental EIS or an environmental assessment and would allow time to solicit, review, and incorporate thoughtful public comment. As the National Commission recommended, BOEM "should not consider exploration plans officially 'submitted' until all of the required content, necessary environmental reviews, and other analyses are complete and adequate to provide a sound basis for decision-making."<sup>130</sup>

## 2. *Make Conditional Approvals Impossible*

OCSLA directs DOI to either approve or deny exploration plans. In interpreting that obligation, DOI has granted "conditional approvals" when exploration plans meet some of the requisite standards but are not yet complete. The conditional approvals state that the plan is approved subject to the company submitting additional information, passing tests, and/or receiving other government approvals.<sup>131</sup> For example, in 2012,

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Invites Public Comment to Inform Environmental Assessment and Analysis of Chukchi Sea Exploration Plan (April 10, 2015) *available at* <http://www.boem.gov/press04102015/> (noting BOEM "has 30 calendar days to analyze and evaluate" Shell's 2015 exploration plan for the Chukchi Sea).

128. *See, e.g.,* NAT'L COMM'N, DEEP WATER, *supra* note 37, at 81–82 (describing categorical exclusion of exploration plans in the central and western Gulf of Mexico).

129. *See, e.g.,* Alaska Wilderness League v. Kempthorne, 548 F.3d 815, 834 (9th Cir. 2008) (noting that BOEM is required to undertake a complete environmental analysis under NEPA, and that the agency has flexibility to do so under OCSLA's statutory scheme), *overruled by* Alaska Wilderness League v. Kempthorne, 559 F.3d 916 (9th Cir. 2009).

130. NAT'L COMM'N, DEEP WATER, *supra* note 37, at 262. In the wake of the Deepwater Horizon accident, the Obama administration pointed to the 30-day timeframe as a problem that needed to be addressed. *See, e.g.,* Shashank Bengali, *Obama orders firms to change drill plans that mimic BP's*, MCCLATCHY DC (June 2, 2012), <http://www.mcclatchydc.com/news/politics-government/white-house/article24584410.html>.

131. *See, e.g.,* Letter from David Johnston, BOEM Alaska Regional Supervisor, to Susan Childs, Shell Alaska Venture Support Integrator, Manager (May 11, 2015) (approving Shell 2015 exploration plan subject to certain conditions), [http://www.boem.gov/uploadedFiles/BOEM/About\\_BOEM/BOEM\\_Regions/Alaska\\_Region/Leasing\\_and\\_Plans/Plans/2015-05-11-Shell-EP-Conditional-Approval.pdf](http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Plans/2015-05-11-Shell-EP-Conditional-Approval.pdf); Press Release, BOEM, BOEM Issues Conditional Approval for Shell 2012 Chukchi Sea Exploration Plan: All Proposed Activities Must Meet New Rigorous Safety and Environmental Standards (Dec. 16, 2011), <http://>

BOEM conditionally approved Shell's exploration plans for the Arctic Ocean before BSEE had approved Shell's oil spill response plans—even though the spill response plan is a required component of the exploration plan.<sup>132</sup> Similarly, in 2015, BOEM approved Shell's Chukchi Sea exploration plan even though Shell had not yet submitted an approval of its Oil Spill Response Plan, had not received approval for its capping stack or containment system, and had not received needed approvals to harass marine mammals, among other deficiencies.<sup>133</sup>

The momentum created pursuant to these conditional approvals may make it difficult or impossible for agency staff to change or cancel some or all of the proposed oil and gas operations. In addition, conditional approvals make it more difficult for BOEM and BSEE to ensure that a spill response plan is suitable for the scope of the proposed Exploration Plan. Ultimately, conditional approval undermines the integrity of the approval process, and BOEM should explicitly disallow this practice.

### 3. *Make Oil Spill Response Plans Subject to Public Review and Comment*

Operators' oil spill response plans should be made subject to public review and comment. "There is a heightened, broad public interest in oil spill response by academics, non-governmental organizations, local government, tribes, and other federal agencies working in the Arctic, particularly after the *Deepwater Horizon* spill and the mishaps of Shell's 2012 drilling season."<sup>134</sup> Many of these stakeholders have significant technical expertise, local knowledge of coastal conditions or weather patterns, and other information that would benefit agency review of spill plans. Regulations should ensure that stakeholders have an opportunity to share this knowledge so that BOEM, BSEE, and OCS operators can improve the effectiveness of their spill response plans.<sup>135</sup>

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[www.boem.gov/BOEM-Newsroom/Press-Releases/2011/press12162011.aspx](http://www.boem.gov/BOEM-Newsroom/Press-Releases/2011/press12162011.aspx).

132. BOEM, *supra* note 131; Press Release, BOEMRE, BOEMRE Issues Conditional Approval for Shell Exploration Plan for Beaufort Sea: All Proposed Activities Must Meet New Rigorous Safety and Environmental Standards (Aug. 4, 2011), <http://www.boem.gov/BOEM-Newsroom/Press-Releases/2011/press0804a.aspx>.

133. David Johnston, *supra* note 131.

134. Letter from Marilyn Heiman, THE PEW CHARITABLE TRUSTS, Director, U.S. Arctic Program to Janice Schneider, Dep't of the Interior, Assistant Sec'y for Land and Minerals Mgmt. at 7 (May 27, 2015), <http://www.regulations.gov/#!documentDetail;D=BSEE-2013-0011-1099>.

135. BSEE is responsible for review and approval of spill response plans. Because an approved plan is necessary prior to exploration and could be combined with it, we include the public review recommendation here. *See* U.S.

The National Commission recommended joint agency and public review of oil spill response plans, additionally stating that these plans should be made available to the public once they are approved.<sup>136</sup> Codifying this review will help ensure full and fair public participation. To the extent that revised regulations require an EIS or EA with public review and comment for all exploration plans, stakeholders could review and comment on oil spill response plans as part of the NEPA process. To ensure that the agency is responsive to suggestions for improvement, the regulations could also require BOEM and BSEE to respond to comments and explain whether suggestions were acted upon and the reasoning behind the agency decision.

### CONCLUSION AND PATH FORWARD

DOI has made progress toward better governance of OCS oil and gas activities, including important regulatory reforms. To date, however, these reforms have not substantively addressed OCS five-year planning, lease sales, or BOEM's process for reviewing and authorizing exploration activities. With respect to these phases of the OCSLA process, BOEM still relies on outdated regulations that have not kept pace with changes within the industry. These regulations do not reflect new priorities and policies that call for greater transparency, more attention to environmental and social risks, and the use of modern economic tools. Comprehensive reform is needed.

DOI should not lose the momentum it has created by transitioning from MMS to BOEM, BSEE, and ONRR. As BOEM and BSEE finalize the first tranche of regulatory reforms, they should lay the groundwork for broader reform. The approach DOI has taken to evaluating the coal program through a programmatic EIS provides one possible model to guide reform.<sup>137</sup>

Another approach would be for Interior to issue a broad Advance Notice of Proposed Rulemaking (ANPR) to solicit feedback and suggestions for all of its regulations governing OCS management. This is the approach that EPA took, for example, when considering how to best regulate greenhouse gas emissions pursuant to the Clean Air Act

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DEP'T. OF THE INTERIOR, BUREAU OF OCEAN ENERGY MGMT., *An Overview of the Assignment of Regulations Between the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement* (noting that BSEE retains authority for "all oil-spill related activities"), <http://www.boem.gov/uploadedFiles/ChartBSEEBOEMRegulatoryAuthorities.pdf>.

136. NAT'L COMM'N, *DEEP WATER*, *supra* note 37, at 266-67.

137. See Secretarial Order No. 3338, *supra* note 5 (summarizing the DOI's evaluation of the Federal Coal Program and its plans for modernizing it).

following the Supreme Court's decision in *Massachusetts v. EPA*.<sup>138</sup> The agency has since promulgated a series of targeted emissions controls.<sup>139</sup> Similarly, in 2015, BLM issued an ANPR to solicit feedback on federal oil and gas fiscal terms.<sup>140</sup> In the same manner, BOEM could issue a broad ANPR covering all of BOEM's regulations, including five-year planning, lease sales, and exploration plan approval.

DOI could then consider a process that incrementally reforms portions of the regulations. This process would take time—each portion of the regulations could easily take a year or more to complete—but that is all the more reason to begin now.

Announcing this type of comprehensive regulatory reform would send a strong signal to oil companies and to the public that DOI intends to keep moving forward with the transition from the old MMS and toward a new way of doing business on the OCS.

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138. See generally, *Regulating Greenhouse Gas Emissions Under the Clean Air Act*, 73 Fed. Reg. 44,354 (July 30, 2008).

139. See *Regulatory Initiatives*, U.S. ENV'T PROT. AGENCY, <http://www3.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html> (documenting current and forthcoming regulations on emissions).

140. *Oil and Gas Leasing: Royalty on Production, Rental Payments, Minimum Acceptable Bids, Bonding Requirements, and Civil Penalty Assessments*, 80 Fed. Reg. 76 (proposed Apr. 21, 2015) (to be codified at 43 C.F.R. pt. 3100), available at <http://www.regulations.gov/#!documentDetail;D=BLM-2015-0002-0001>.



## ARTICLES

# Modernizing Management of Offshore Oil and Gas in Federal Waters

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### Summary

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Offshore drilling has been thrust back into the spotlight by the Trump Administration's focus on "energy dominance." While it is unlikely that leasing will take place in all areas included in the Administration's proposed plan, its enormous scope has raised serious questions about the government's capacity to properly plan for potential activities and evaluate impacts, and it has again prompted calls to amend the laws governing Outer Continental Shelf (OCS) oil and gas. This Article recognizes the need for comprehensive ocean legislation, but recognizing that systemic change will take time, focuses on reforms that are generally consistent with the existing statutory framework. It provides background on the statutory scheme governing OCS activities, summarizes some of the reasons Congress should update and amend the law, touches on attempts at legislative reform, and includes specific recommended changes in four main categories: (1) overall policy and overarching legal structure; (2) planning and leasing; (3) operations and response; and (4) financial responsibility and funding.

There have been three major offshore oil disasters in the United States: the Santa Barbara blowout in 1969, the *Exxon Valdez* running aground in Prince William Sound in 1989, and the *Deepwater Horizon* exploding and sinking in the Gulf of Mexico in 2010. The Santa Barbara spill encouraged the burgeoning environmental movement and contributed to the momentum for seminal national legislation like the National Environmental Policy Act (NEPA).<sup>1</sup> The *Exxon Valdez* disaster highlighted deficiencies in the design of tankers, the liability regime, and the framework for responding to a major spill, which led the U.S. Congress to pass the Oil Pollution Act of 1990 (OPA 90).<sup>2</sup> In the wake of the largest of these spills, the *Deepwater Horizon*, Congress took no action to address the apparent problems related to government planning, management, and oversight of Outer Continental Shelf (OCS) oil and gas activities as well as industry preparedness for catastrophic spills.

Congress' failure to act is not due to a lack of needed updates. The expert commission created by President Barack Obama, the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, recommended significant statutory changes that could help strengthen management, prevent a disaster like the *Deepwater Horizon* in the future, and improve preparedness and response.<sup>3</sup> The 111th Congress held hearings and considered a series of bills, but it ultimately failed to pass reform legislation in the aftermath of the *Deepwater Horizon*.<sup>4</sup> Subsequent Congresses have debated a variety of OCS-related bills, including those that would have expedited offshore oil and gas leasing by circumventing existing procedures.<sup>5</sup>

More recently, offshore drilling has been thrust back into the national spotlight by the Donald Trump Administration's focus on "energy dominance." President Trump's direction to review existing OCS-related plans

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1. 42 U.S.C. §§4321-4370h (as amended by Pub. L. No. 111-8, 123 Stat. 729 (2009)), ELR STAT. NEPA §§2-209; see also generally Teresa Sabol Spezio, *The Santa Barbara Oil Spill and Its Effect on United States Environmental Policy*, 10(8) SUSTAINABILITY 2750 (2018), available at <https://www.mdpi.com/2071-1050/10/8/2750>.
  2. OPA 90, 33 U.S.C. §§2701-2762, ELR STAT. OPA §§1001-7001.
  3. See NATIONAL COMMISSION ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 249-91 (2011) [hereinafter NATIONAL COMMISSION] (recommending widespread changes in the wake of the *Deepwater Horizon* disaster).
  4. The 111th Congress did pass the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act), which dealt with the allocation of civil penalties resulting from the *Deepwater Horizon* spill. See the RESTORE Act of 2012; Moving Ahead for Progress in the 21st Century Act, div. A, tit. I, subtit. F, 126 Stat. 588 (2012).
  5. See, e.g., Offshore Energy and Jobs Act, H.R. 2231, 113th Cong. (2013) (calling for expanding offshore leasing, weakening environmental protections).

and rules<sup>6</sup> resulted in release of the 2019-2024 National Outer Continental Shelf Oil and Gas Leasing Draft Proposed Program (DPP), in which the Administration proposed making virtually the entire OCS available for leasing.<sup>7</sup> While it is unlikely that leasing will take place in all areas included in the DPP, the enormous scope of the proposal raised serious questions about the government's capacity to properly plan for potential activities and evaluate impacts on such a scale, and it again prompted calls to amend the laws that govern offshore oil and gas activities.<sup>8</sup>

This call for change is emblematic of the broader need to transition to renewable sources of energy and to modernize the governance structure for ocean resources in the United States. The grave threats posed by climate change and ocean acidification necessitate systemic change in the use of fossil fuels in the United States. An overhaul of the nation's OCS energy policy must be part of that change. More broadly, oil and gas extraction is one of many ocean activities regulated separately under a siloed system of management. Calls for a single governing law for the oceans go back decades and have substantial merit.<sup>9</sup> Part I of this Article briefly makes the case for comprehensive reform of energy and ocean governance.

At the same time as we advocate for comprehensive and bold legislation for the ocean, we recognize that systemic change will take time and that offshore oil and gas activities will continue until a transition is complete. Accordingly, Congress must also reform and modernize the laws that govern OCS oil and gas activities. To that end, the bulk of this Article focuses on reforms that are generally consistent with the existing statutory framework, and would facilitate better decisionmaking about whether, when, where, and under what conditions to allow offshore oil and gas activities.

Part II provides background on the statutory scheme that governs OCS oil and gas activities, briefly summarizes some of the reasons Congress should update and amend

the law, and touches on some attempts at legislative reform. Part III includes specific recommended statutory changes in four main categories: (1) overall policy and overarching legal structure; (2) planning and leasing; (3) operations and response; and (4) financial responsibility and funding. Part IV concludes with a recommended path forward.

## I. Comprehensive Reform

Currently, decisions about whether and under what conditions to allow offshore oil and gas activities may be made without accounting for the clear need to transition to renewable sources of energy or a holistic view of activities happening in the ocean. This part briefly explains this context and the clear need for fundamental reform as background to the targeted changes we propose in the remainder of the Article.

Climate change science was nascent in 1978 when Congress last made significant revisions to the Outer Continental Shelf Lands Act (OCSLA).<sup>10</sup> It is, therefore, unsurprising that the statute does not recognize the finite nature of fossil fuels, the impact that burning them is having on the environment, or the need to plan for a transition away from them. Now, however, the science is clear,<sup>11</sup> as is the imperative to take steps to reduce human-caused emissions of greenhouse gases and to help adapt to significant, ongoing changes.

A full description of the science behind climate change and the impacts it is having on communities, economies, and ecosystems is beyond the scope of this Article.<sup>12</sup> In this context, however, we highlight the potential impacts to the ocean and coastal communities:

Rising water temperatures, ocean acidification, retreating arctic sea ice, sea level rise, high-tide flooding, coastal erosion, higher storm surge, and heavier precipitation events threaten our oceans and coasts. These effects are projected to continue, putting ocean and marine species at risk, decreasing the productivity of certain fisheries, and

6. Implementing an America-First Offshore Energy Strategy, Exec. Order No. 13795 of April 28, 2017, 82 Fed. Reg. 20815, 20815-18 (May 3, 2017).

7. BUREAU OF OCEAN ENERGY MANAGEMENT (BOEM), 2019-2024 NATIONAL OUTER CONTINENTAL SHELF OIL AND GAS LEASING DRAFT PROPOSED PROGRAM 1 (2018) ("This Draft Proposed Program (DPP) would make more than 98 percent of the OCS available to consider for oil and gas leasing during the 2019-2024 period.")

8. See, e.g., Clean Ocean and Safe Tourism (COAST) Anti-Drilling Act of 2019; Coastal Economies Protection Act of 2019; California Clean Coast Act of 2019; New England Coastal Protection Act of 2019; Florida Coastal Protection Act of 2019; West Coast Ocean Protection Act of 2019; Stop Arctic Ocean Drilling Act of 2019; Defend Our Coast Act of 2019.

9. See, e.g., PEW OCEANS COMMISSION, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 102 (2003) (calling on Congress to enact a National Ocean Policy Act that, among other things, establishes unified principles and standards for ocean governance); U.S. COMMISSION ON OCEAN POLICY, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY FINAL REPORT 102 (2004) (recommending that Congress enact an ecosystem-based offshore management regime).

10. See generally Nathaniel Rich, *Losing Earth: The Decade We Almost Stopped Climate Change*, N.Y. TIMES MAG., Aug. 1, 2018, <https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html>.

11. Donald J. Wuebbles et al., *Executive Summary*, in CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME I, at 12 (D.J. Wuebbles et al. eds., U.S. Global Change Research Program 2017) ("it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century. For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence."), [https://science2017.globalchange.gov/downloads/CSSR\\_Executive\\_Summary.pdf](https://science2017.globalchange.gov/downloads/CSSR_Executive_Summary.pdf).

12. Such a review was completed in the fall of 2018. See U.S. GLOBAL RESEARCH PROGRAM, IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II (D.R. Reidmiller et al. eds., 2018), [https://nca2018.globalchange.gov/downloads/NCA4\\_2018\\_FullReport.pdf](https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf).

threatening communities that rely on marine ecosystems for livelihoods and recreation. . . .<sup>13</sup>

Actions to reduce emissions of greenhouse gases are needed: “[w]ithout significant reductions in global greenhouse gas emissions and regional adaptation measures, many coastal regions will be transformed by the latter part of this century, with impacts affecting other regions and sectors.”<sup>14</sup>

Reducing greenhouse gas emissions will require a fundamental change in the manner in which the United States develops and uses energy. Full consideration of whether, and under what circumstances, the federal government allows the extraction and burning of offshore oil and gas must be part of that change. We do not advocate a particular solution here. Rather, it is sufficient to acknowledge that a transition to renewable energy is necessary and that future extraction should be considered in the context of that needed transition.

Similarly, extracting oil and gas from under the ocean is only one of many ocean uses, and the energy obtained is only one of the many benefits received from the ocean. Roughly 40% of the U.S. population lives in a coastal county, and around the world, 1.9 billion people make coastal areas home.<sup>15</sup> More than 90% of the world’s trade is carried by ocean-based transportation, and the ocean produces more than 150 million metric tons of seafood annually, providing the primary source of protein for billions of people.<sup>16</sup> The ocean provides 90% of the world’s habitat and hosts animals ranging from the largest, the blue whale, to microscopic plants, animals, and bacteria.<sup>17</sup> The ocean also has buffered many of the most immediate consequences of carbon dioxide pollution, absorbing 93% of the total excess heat energy taken up by greenhouse gas in the atmosphere.<sup>18</sup> And the ocean can be an important

source of renewable energy to help transition away from fossil fuels.<sup>19</sup>

Despite its importance, the United States has no single law governing ocean resources. Rather, as exemplified by OCSLA, there are a series of federal laws affecting ocean resources and management. These statutes are defined by “a ‘use-by-use,’ ‘issue-by-issue,’ and ‘pollutant-by-pollutant’ approach to oceans policy,” and are “administered by over fifty federal agencies, often with joint responsibility for implementation and enforcement of the same statute.”<sup>20</sup> By way of example, in addition to the agencies regulating offshore oil and gas directly, “[d]ecisions about Arctic Ocean resources fall under the purview of the . . . U.S. Fish & Wildlife Service (FWS), U.S. Coast Guard (USCG), [U.S.] Environmental Protection Agency (EPA), and National Marine Fisheries Service (NMFS), among others. These agencies are all separate entities, most of them located in different Cabinet departments. . . .”<sup>21</sup>

There is a clear need for holistic management. As stated above, this idea is not new.<sup>22</sup> It dates back several decades with a more recent recognition from President Obama that federal agencies with management authority over ocean resources need to better coordinate. To address that need, President Obama issued an Executive Order creating the National Ocean Policy and a White House-level National Ocean Council that brought together leaders from federal agencies with a stake in ocean management.<sup>23</sup> Unlike forests and federal lands,<sup>24</sup> however, there is still no unifying federal statute addressing management of the ocean.

In summary, under existing law, choices about offshore oil and gas may be made without full consideration of impacts to the ocean or on climate change. The legislative changes needed to address both deficiencies are beyond the

13. *Summary Findings, in id.* at 31 (Finding 11).

14. *Id.* See also *Sea Change: Impacts of Climate Science on Our Oceans and Coasts: Hearing Before the Subcommittee on Environment of the House Committee on Science, Space, and Technology*, 116th Cong. (2019) (written testimony of Sarah Cooley, Director, Ocean Acidification Program, Ocean Conservancy) (summarizing the effects of climate change and ocean acidification on ocean ecosystems).

15. See National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management, *Fast Facts: Economics and Demographics*, <https://coast.noaa.gov/states/fast-facts/economics-and-demographics.html> (last visited Mar. 26, 2019); Matti Kummu et al., *Over the Hills and Further Away From Coast: Global Geospatial Patterns of Human and Environment Over the 20th-21st Centuries*, 11 ENVTL. RES. LETTERS (2016), available at <https://iopscience.iop.org/article/10.1088/1748-9326/11/3/034010>.

16. See, e.g., UN-Business Action Hub, *IMO (International Maritime Organization)*, <https://business.un.org/en/entities/13> (last visited Mar. 20, 2019); FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, *THE STATE OF WORLD FISHERIES AND AQUACULTURE 2018*, at iv-v (2018) (“Total fish production in 2016 reached an all-time high of 171 million tonnes, of which 88 percent was utilized for direct human consumption, thanks to relatively stable capture fisheries production, reduced wastage and continued aquaculture growth. This production resulted in a record-high per capita consumption of 20.3 kg in 2016.”).

17. United Nations Educational, Scientific, and Cultural Organization, *Facts and Figures on Marine Biodiversity*, <http://www.unesco.org/new/en/natural-sciences/ioc-oceans/focus-areas/rio-20-ocean/blueprint-for-the-future-we-want/marine-biodiversity/facts-and-figures-on-marine-biodiversity/> (last visited Mar. 20, 2019).

18. CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME I, *supra* note 11, ch. 13.

19. See, e.g., Mehmet Melikoglu, *Current Status and Future of Ocean Energy Sources: A Global Review*, 148 OCEAN ENGINEERING 563-73 (2018), available at <https://www.sciencedirect.com/science/article/pii/S002980181730714X>.

20. Martin H. Belsky, *The Ecosystem Model Mandate for a Comprehensive United States Ocean Policy and Law of the Sea*, 26 SAN DIEGO L. REV. 417, 430 (1989).

21. Michael LeVine et al., *Oil and Gas in America’s Arctic Ocean: Past Problems Counsel Precaution*, 37 SEATTLE U. L. REV. 1271, 1303 (2014) (internal citations and punctuation omitted); see also Belsky, *supra* note 20, at 430 n.94 (listing statutes affecting ocean resources).

22. See Belsky, *supra* note 20, at 417-48 (tracing the history of efforts at holistic management); PEW OCEANS COMMISSION, *supra* note 9, at 102 (calling on Congress to enact a National Ocean Policy Act that, among other things, establishes unified principles and standards for ocean governance); U.S. COMMISSION ON OCEAN POLICY, *supra* note 9, at 102 (recommending that Congress enact an ecosystem-based offshore management regime).

23. Stewardship of the Ocean, Our Coasts, and the Great Lakes, Exec. Order No. 13547 of July 19, 2010, 75 Fed. Reg. 43023 (July 22, 2010). This policy has been superseded by President Trump. See *Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States*, Exec. Order No. 13840 of June 19, 2018, 83 Fed. Reg. 29431 (June 22, 2018), <https://www.whitehouse.gov/presidential-actions/executive-order-regarding-ocean-policy-advance-economic-security-environmental-interests-united-states/>. This interagency management concept is also reflected in an Executive Order issued by President Trump that maintains White House leadership, replacing the Obama National Ocean Council with an interagency Ocean Policy Committee that has a similar structure but with additions such as USCG and the U.S. Army Corps of Engineers. See Exec. Order No. 13840, *infra* note 98.

24. See National Forest Management Act of 1976, 16 U.S.C. §§1600-1614; Federal Land Policy and Management Act of 1976, 43 U.S.C. §§1701-1787.

scope of this Article. The need for fundamental reform, however, provides context for the remainder of the Article. While acknowledging the need for those changes, we recognize that significant improvements are necessary and can be made within the current framework for extracting oil and gas. Those changes are the focus of this Article.

## II. Overview of Existing OCS Legislation, Need for Change, and Prior Reform Efforts

Some background and context about the relevant statutes is necessary to understand the needed reforms. This part provides a brief overview and description of OCSLA,<sup>25</sup> certain parts of the Clean Water Act (CWA),<sup>26</sup> and OPA 90.<sup>27</sup> It also reviews some of the reasons that Congress should take action to amend those statutes, discusses regulatory changes that have been implemented, and summarizes some past and ongoing attempts to enact legislation related to OCS oil and gas activities.

### A. History and Description of Relevant OCS Legislation

OCSLA governs planning, leasing, exploration, and development of offshore oil and gas resources in federal waters. When Congress enacted OCSLA in 1953, it established federal jurisdiction over OCS lands and gave the Secretary of the Interior authority to lease those lands for mineral development.<sup>28</sup> Congress amended the law to its current form in 1978,<sup>29</sup> and there have been few significant changes to the provisions that govern OCS oil and gas activities since that time.<sup>30</sup>

OCSLA establishes a four-stage process that covers planning, leasing, exploration, and development and production of oil and gas on OCS lands. Other articles provide substantial details on this framework.<sup>31</sup> For purposes of this Article, it is sufficient to note that the stages are:

- **Planning.** At the initial planning stage, the Secretary of the Interior develops a nationwide leasing program. The program establishes a schedule of proposed lease

sales to be held in different OCS planning areas over a five-year period.

- **Leasing.** If the Secretary of the Interior elects to hold a lease sale included in the five-year program, the U.S. Department of the Interior (DOI) prepares an environmental analysis for that lease sale and holds a competitive auction. Successful bidders acquire the conditional right to explore, develop, and produce oil and gas on specific OCS lease tracts.
- **Exploration.** OCS leaseholders apply for government approval to drill exploration wells on their lease tracts. They may also apply to conduct seismic testing and similar activities.<sup>32</sup> OCS leaseholders must submit plans for their proposed exploration activities, and those plans are subject to a variety of approval processes.
- **Development and production.** If exploration activities are successful and the leaseholder determines that development is commercially viable, the company may apply for approval to develop and produce the oil and gas resources on their lease tracts. Lessees must submit development and production plans to government agencies for approval.

Spill response and remediation are covered by a separate statutory scheme included in the CWA<sup>33</sup> and OPA 90.<sup>34</sup> CWA §311(j) establishes a tiered national oil spill response system and sets forth requirements designed to promote oil spill preparedness, planning, and response capacity.<sup>35</sup> In the event of an oil spill, the CWA provides a process to assess damage to natural resources and work toward restoration.<sup>36</sup> As is relevant here, OPA 90 guides response to, remediation of, and liability for a spill. It ensures responsible parties are strictly liable for the costs of responding to a spill and removing spilled oil. It also establishes penalties and liability limits and authorizes use of the Oil Spill Liability Trust Fund (OSLTF), which may be used to support spill removal and assessment costs under some circumstances.<sup>37</sup> Congress has not updated OPA 90 since enacting it.

OCS oil and gas planning and operations frequently require compliance with other statutes, including NEPA,<sup>38</sup> the Coastal Zone Management Act (CZMA),<sup>39</sup> the Endangered Species Act (ESA),<sup>40</sup> and the Marine Mammal

25. OCSLA, 43 U.S.C. §§1331-1356b.

26. Federal Water Pollution Control Act, 33 U.S.C. §§1251-1388, ELR STAT. FWPCA §§101-607.

27. OPA 90, 33 U.S.C. §§2701-2762.

28. OCSLA, Pub. L. No. 83-212, 67 Stat. 462 (1953) (codified at 43 U.S.C. §§1331-1356b).

29. OCSLA Amendments of 1978, Pub. L. No. 95-372, 92 Stat. 629.

30. The Energy Policy Act of 2005 amended OCSLA and gave the U.S. Department of the Interior (DOI) jurisdiction over renewable energy projects on OCS lands. Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594. In 2006, Congress enacted the Gulf of Mexico Energy Security Act, which made targeted changes to OCS oil and gas leasing activities and revenue sharing in the Gulf of Mexico region. Gulf of Mexico Energy Security Act of 2006, Pub. L. No. 109-432, div. C, tit. I, §§101-105, 120 Stat. 3000.

31. See, e.g., Andrew Hartsig, *Shortcomings and Solutions: Reforming the Outer Continental Shelf Oil and Gas Framework in the Wake of the Deepwater Horizon Disaster*, 16 OCEAN & COASTAL L.J. 269, 271-80 (2011); LeVine et al., *supra* note 21, at 1308-13.

32. While operators must obtain federal permits to undertake seismic testing on the OCS, they do not need to hold an oil and gas lease. 43 U.S.C. §1340(a)(1), (g).

33. FWPCA, 33 U.S.C. §§1251-1388.

34. OPA 90, 33 U.S.C. §§2701-2762.

35. *Id.* §1321(j).

36. *Id.* §2706.

37. 26 U.S.C. §9509.

38. 42 U.S.C. §§4321-4370h (as amended by Pub. L. No. 111-8, 123 Stat. 729 (2009)), ELR STAT. NEPA §§2-209.

39. 16 U.S.C. §§1451-1466, ELR STAT. CZMA §§302-319.

40. 16 U.S.C. §§1531-1544, ELR STAT. ESA §§2-18.

Protection Act (MMPA).<sup>41</sup> These laws guide analysis of potential impacts, opportunities for public participation, and conservation of marine resources.

## B. Shortcomings in the Governance of OCS Oil and Gas Activities

The past 40 years have exposed inadequacies and weaknesses in the statutory framework described above. Detailed analyses of these shortcomings can be found in the reports prepared by the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, and other sources.<sup>42</sup> The subsections below summarize some key failings of the existing OCS regime; they are not intended to be an exhaustive catalog.

### I. Failure to Prevent a Major Disaster and Ensure Availability of Adequate Response Capacity

The *Deepwater Horizon* disaster killed 11 people, led to a spill that continued unabated for 87 days, and cost BP an estimated \$65 billion.<sup>43</sup> This tragedy made clear that the existing governance structure fails to prevent major disasters. It also showed that our capability to recover spilled oil is exceedingly limited: of the more than 210 million barrels of oil that spilled into the Gulf of Mexico, only about 3% was recovered using mechanical skimmers.<sup>44</sup> That recovery rate was similar to the recovery rate after the *Exxon Valdez* disaster 21 years earlier.<sup>45</sup>

Extraction of oil from under the ocean will always involve risk and the potential for human error. However, changes to the statutory regime can help improve decisions about whether, where, when, and under what conditions oil and gas activities are allowed. Statutory reform can also reduce risk, increase preparedness, and improve response capabilities.

### 2. Failure to Keep Pace With Changed Practices and Risks

OCSLA has not kept pace with rapid changes in offshore drilling technologies and practices and their attendant risks. As noted above, Congress last made significant amendments to OCSLA in 1978. At that time, deepwater drilling was just getting underway, as companies operating in the Gulf of Mexico began drilling in water depths greater than 1,000 feet.<sup>46</sup> By the end of the first decade of the 2000s, oil companies were drilling in water depths down to 10,000 feet, with total well depths of more than 30,000 feet.<sup>47</sup> The new risks and challenges of operating in ever-deeper environments have been well-documented; despite those risks, experts expect companies to continue to expand these activities.<sup>48</sup>

Similarly, there has been a renewed push to explore in Arctic waters—a region in which operators face different challenges and a vastly different environment than the Gulf of Mexico or the California coast.<sup>49</sup> Operations took place in the Arctic in the 1980s,<sup>50</sup> and Shell spent more than \$7 billion seeking to drill in the Beaufort and Chukchi Seas from 2007-2015.<sup>51</sup> The significant problems Shell encountered, including the grounding of its *Kulluk* drill rig, evidence the challenges of operating in the Arctic environment.<sup>52</sup>

In general, OCSLA does not differentiate among regions or highlight the risks of operating in frontier areas. DOI has made some regulatory changes to address these challenges—notably, the Arctic-specific regulations govern-

41. 16 U.S.C. §§1361-1423h, ELR STAT. MMPA §§2-410.

42. See generally NATIONAL COMMISSION, *supra* note 3. Staff of the National Commission on the *Deepwater Horizon* Oil Spill and Offshore Drilling developed a series of working papers that touch on a variety of issues related to OCS oil and gas. The staff working papers are available at <http://oscaction.org/resource-center/staff-papers/> (last visited Mar. 20, 2019). See also DOI, REPORT TO THE SECRETARY OF THE INTERIOR: REVIEW OF SHELL'S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM (2013) (focusing on shortcoming in Arctic region), <https://www.doi.gov/sites/doi.gov/files/migrated/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf>; COUNCIL ON ENVIRONMENTAL QUALITY, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT (2010) (focusing on shortcomings related to the intersection of OCS oil and gas activities and NEPA policies).

43. See Ron Bouso, *BP Deepwater Horizon Costs Balloon to \$65 Billion*, REUTERS, Jan. 16, 2018, <https://www.reuters.com/article/us-bp-deepwater-horizon/bp-deepwater-horizon-costs-balloon-to-65-billion-idUSKBN1F50NL>. Some experts estimate the cost of the spill was much higher. See, e.g., Yong Gyo Lee et al., *Ultimate Costs of the Disaster: Seven Years After the Deepwater Horizon Oil Spill*, COUNCIL ON ENVIRONMENTAL QUALITY, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 79 (2018) (concluding ultimate cost to BP was nearly \$145 billion).

44. NATIONAL COMMISSION, *supra* note 3, at 168.

45. *Energy Development on the Continental Shelf and the Future of Our Oceans: Hearing Before the Joint Subcommittee on Energy and Mineral Resources and Subcommittee on Insular Affairs, Oceans, and Wildlife of the House Committee on Natural Resources*, 111th Cong. 2 (2009) (written testimony of Dr. Jeffrey Short, Pacific Science Director, Oceana), [https://grist.files.wordpress.com/2010/05/written\\_statement\\_of\\_dr\\_jeffrey\\_short\\_3\\_24\\_joint\\_subcommittee\\_hearing.pdf](https://grist.files.wordpress.com/2010/05/written_statement_of_dr_jeffrey_short_3_24_joint_subcommittee_hearing.pdf).

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46. NATIONAL COMMISSION, *supra* note 3, at 31.

47. *Id.* at 51.

48. See, e.g., NATIONAL COMMISSION ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, A BRIEF HISTORY OF OFFSHORE OIL DRILLING 15 (2010) (“[M]ost experts project the world’s appetite for oil and other fuels to grow for the foreseeable future. The role of deepwater oil and gas in providing that energy is also likely to grow.”).

49. See NATIONAL COMMISSION, *supra* note 3, at 35; see also Oil and Gas and Sulfur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf; Final Rule, 81 Fed. Reg. 46478, 46485 (July 15, 2016) (describing unique challenges of Arctic operating environment).

50. BOEM ALASKA, ALASKA OCS REGION BEAUFORT SEA EXPLORATION WELLS (2018), <https://www.boem.gov/Exploration-Wells-Beaufort-Sea/>; BOEM ALASKA, ALASKA OCS REGION CHUKCHI SEA EXPLORATION WELLS (2016), <https://www.boem.gov/Exploration-Wells-Chukchi-Sea/>.

51. See, e.g., Karolin Schaps, *Royal Dutch Shell Pulls Plug on Arctic Exploration*, REUTERS, Sept. 28, 2015 (noting Shell spent “about \$7 billion on exploration in the waters off Alaska”), <https://www.reuters.com/article/us-shell-alaska/royal-dutch-shell-pulls-plug-on-arctic-exploration-idUSKC-NORS0EX20150928>.

52. See generally DOI, *supra* note 42.

ing exploration operations in the Chukchi and Beaufort Seas<sup>53</sup>—but there is no statutory direction to consider the particular risks of operating in the difficult environments to which the industry is increasingly moving.

### 3. Insufficient Safeguards to Ensure Value to Taxpayers or Account for Costs Borne by the Public

OCSLA mandates that offshore oil and gas lease sales should be competitive and earn fair market value for taxpayers, but the actual lease sales have not lived up to that ideal. For instance, the practice of “areawide leasing”—where entire OCS planning areas are put up for auction all at once—has resulted in low bids with little or no competition.<sup>54</sup> The planning process also does not ensure consideration of option value—the potential value in not developing a resource under current circumstances.<sup>55</sup>

As explained above, the current statutory framework does not ensure that decisionmakers adequately account for the need to reduce greenhouse gas emissions,<sup>56</sup> or recognize that fossil fuels are finite and that a transition to renewable energy is needed.<sup>57</sup> It therefore does not account for the costs of climate emissions.

OCSLA similarly fails to ensure that companies pay for other impacts that their activities cause. In addition to greenhouse gas emissions, oil and gas activities on the OCS generate significant noise, water, and air pollution. Air pollution caused by offshore oil and gas activities includes greenhouse gas emissions, both from the emissions generated by offshore operations themselves and from emissions associated with the combustion of oil and gas that is extracted from the OCS.<sup>58</sup> OCSLA does not ensure that companies pay the full cost of these impacts.

### 4. Lack of Commitment to Science, Stewardship, and Indigenous Knowledge

OCSLA calls for “expeditious and orderly development” of OCS energy resources “subject to environmental safeguards.”<sup>59</sup> The balance between development and environmental concerns, however, “depends largely on the politics of the moment,” and the Secretary of the Interior can choose how much weight to assign to environmental protection.<sup>60</sup> The statutory scheme does not “come close to ensuring a reasonable level of overall environmental protection applicable to all aspects” of OCS oil and gas activity.<sup>61</sup> In fact, some aspects of OCSLA actually “stack the deck against full consideration of environmental concerns.”<sup>62</sup>

As with environmental stewardship, OCSLA does not sufficiently prioritize science-based decisionmaking, including the incorporation of traditional and local knowledge into the decisionmaking process. OCSLA does not require any threshold level of baseline scientific information prior to opening an area of the OCS to oil and gas leasing, nor does it specifically require managers to seek out and use local and traditional knowledge in OCS decisionmaking.

### 5. Failure to Provide Clarity or Prevent Politicization

The existing legal regime governing OCS oil and gas activities includes ambiguities that have led, and will likely continue to lead, to litigation. Requirements for the five-year program are notably vague, which has led to a number of legal challenges to five-year programs.<sup>63</sup> In fact, the statute’s lack of clarity has contributed to litigation at all stages of the OCSLA process.<sup>64</sup> Statutory ambiguities have also led to litigation regarding federal regulators’ discretion to disapprove inadequate spill response plans.<sup>65</sup>

In addition, the current legal framework has allowed offshore oil and gas practices to be overwhelmed by political considerations. Offshore drilling was a significant issue in the 2008 presidential campaign, during which “drill, baby, drill” was a prominent slogan.<sup>66</sup> At the end of the Obama Administration, a five-year program was completed; it included sales only in the western and central

53. See Oil and Gas and Sulfur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf; Final Rule, 81 Fed. Reg. 46478 (July 15, 2016).

54. Jayni Foley Hein, *Federal Lands and Fossil Fuels: Maximizing Social Welfare in Federal Energy Leasing*, 42 HARV. ENVTL. L. REV. 1, 13-14 (2018); see *infra* Section III.B.3. (discussing areawide leasing in detail).

55. *Id.* at 33-34.

56. See, e.g., Michael Burger, *A Carbon Fee as Mitigation for Fossil Fuel Extraction on Federal Lands*, 42 COLUM. J. ENVTL. L. 295, 297 (2017) (noting “federal fossil fuel leasing programs have not adequately addressed the upstream and downstream impacts of federal leases” including impacts related to climate change).

57. See *Final Report of the President’s National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling: Oversight Hearing Before the House Committee on Natural Resources*, 112th Cong. 23 (2011) (joint statement of the Hon. Bob Graham and the Hon. William Reilly, Co-Chairmen, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling) (noting that the United States must move away from offshore oil drilling and “must begin a transition to a cleaner, more energy-efficient future”), available at <https://www.govinfo.gov/content/pkg/CHRG-112-hhrg63876/pdf/CHRG-112hhrg63876.pdf>.

58. Jessica Goad & Matt Lee-Ashley, *The Clogged Carbon Sink: U.S. Public Lands Are the Source of 4.5 Times More Carbon Pollution Than They Can Absorb*, CENTER FOR AM. PROGRESS, Dec. 5, 2013, <https://www.americanprogress.org/issues/green/news/2013/12/05/80277/the-clogged-carbon-sink-u-s-public-lands-are-the-source-of-4-5-times-more-carbon-pollution-than-they-can-absorb/>.

59. 43 U.S.C. §1332(3).

60. NATIONAL COMMISSION, *supra* note 3, at 80.

61. *Id.* at 81.

62. *Id.* at 80.

63. See LeVine et al., *supra* note 21, at 1315-25 (describing various legal challenges to OCS planning, leasing, and other activities).

64. *Id.*; see also Center for Biological Diversity v. Zinke, No. 3:18-cv-00064 (D. Alaska filed Mar. 8, 2018) (challenging approval of development plan in the Beaufort Sea), [https://www.biologicaldiversity.org/programs/public\\_lands/energy/dirty\\_energy\\_development/oil\\_and\\_gas/gulf\\_oil\\_spill/pdfs/Petition-for-Review.pdf](https://www.biologicaldiversity.org/programs/public_lands/energy/dirty_energy_development/oil_and_gas/gulf_oil_spill/pdfs/Petition-for-Review.pdf).

65. See, e.g., Alaska Wilderness League v. Jewell, 788 F.3d 1212, 45 ELR 20112 (9th Cir. 2015), *petition for rehearing and rehearing en banc denied*, 811 F.3d 1111 (9th Cir. 2015).

66. See Robert Hahn & Peter Passell, *Save the Environment: Drill, Baby, Drill*, N.Y. TIMES, Sept. 14, 2008 (noting chants of “drill, baby, drill” at Republican National Convention in 2008). See also LeVine et al., *supra* note 21, at 1304-05 (describing politicization of offshore drilling).

Gulf of Mexico and Cook Inlet in Alaska.<sup>67</sup> Before leaving office, President Obama used his authority under §12(a) of OCSLA to withdraw from leasing, for an indefinite period of time, roughly 115 million acres in the Arctic Ocean<sup>68</sup> and 3.8 million acres off the Atlantic Coast.<sup>69</sup>

When President Trump took office, the pendulum swung back. President Trump issued Executive Order No. 13795, which, among other things, purported to rescind President Obama's withdrawals and declared it U.S. policy to "encourage energy exploration and production, including on the Outer Continental Shelf."<sup>70</sup> Later, the Trump Administration released its DPP, which proposed to open virtually the entire U.S. coastline to offshore leasing,<sup>71</sup> despite local opposition and despite the fact that the program itself acknowledged many areas had virtually no oil and gas potential.<sup>72</sup> In short, offshore oil and gas has become a politically charged issue, and the existing legal framework has enabled an erratic pattern of decisionmaking instead of fostering a consistent, sound, long-term policy.

### C. Agency Regulations Do Not Address Many of These Shortcomings

Deficiencies or ambiguities in statutory text can often be remedied by more specific direction in implementing regulations. However, the existing regulations implementing the first three phases of OCSLA are themselves outdated and do not fill the statutory gaps. Even where regulations have been updated or supplemented, they are subject to repeal by future administrations.

Regulations implementing the planning and leasing phases of OCSLA were promulgated nearly 40 years ago, do not provide significant substantive direction, and have not changed in any substantive manner to keep pace with changes in the industry.<sup>73</sup> The regulations gov-

erning exploration operations likewise do not provide sufficient direction.

There has been incremental progress related to operations in recent years. In the wake of the *Deepwater Horizon* disaster, DOI took steps intended to improve oversight and governance. Some of these changes are discussed in Part III.<sup>74</sup> During this time, industry also made progress toward improving safety and preparedness.<sup>75</sup> These steps reflect advances but not the fundamental changes needed to keep up with the needs identified above, and all are subject to change with each new administration.

### D. Attempts to Change the Law

As the foregoing subsections show, there are many reasons to improve the statutory regime that governs OCS oil and gas activities. Lawmakers have proposed changes to OCSLA and related laws in the past, and continue to do so in the 116th Congress. The most sweeping of these legislative proposals came in the aftermath of the *Deepwater Horizon* disaster, when Congress considered the Consolidated Land, Energy, and Aquatic Resources Act of 2010 (CLEAR Act) and companion legislation in the U.S. Senate.<sup>76</sup> These bills would have made substantial and systemic changes to the management of oil and gas activities on the OCS—but were not enacted. Since the 111th Congress, proposals like this one and more targeted bills have been introduced, but Congress has not enacted any of them.

### I. CLEAR Act and Companion Legislation

After the *Deepwater Horizon* disaster, lawmakers developed and debated significant changes to the governance of OCS oil and gas operations. In the U.S. House of Representatives, the CLEAR Act was the primary legislative vehicle for these changes. Title I of the CLEAR Act would have replaced the Minerals Management Service (MMS) with three new agencies, like the change that has been made administratively.<sup>77</sup> Title II would have amended OCSLA's policy statement; created new OCS leasing standards; established a funding mechanism to protect, maintain, and restore marine and coastal ecosystems; strengthened requirements related to exploration plans; required the Secretary of the Interior to consider new environmental factors

67. See BOEM, 2017-2022 OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROPOSED FINAL PROGRAM S4 (2016) (showing lease sales scheduled for Gulf of Mexico and potentially Cook Inlet, Alaska). The 2017-2022 OCS Oil and Gas Leasing Program was the first five-year program that did not include sales in either the Beaufort or Chukchi Sea or both.

68. Presidential Memorandum—Withdrawal of Certain Portions of the United States Arctic Outer Continental Shelf From Mineral Leasing (Dec. 20, 2016), <https://obamawhitehouse.archives.gov/the-press-office/2016/12/20/presidential-memorandum-withdrawal-certain-portions-united-states-arctic>. See also Press Release, DOI, Secretary Jewell Applauds President's Withdrawal of Atlantic and Arctic Ocean Areas From Future Oil and Gas Leasing (Dec. 20, 2016) (noting Arctic withdrawal was roughly 115 million acres in size).

69. Press Release, *supra* note 68 (noting Atlantic withdrawals covered roughly 3.8 million acres). See also Presidential Memorandum, *supra* note 68.

70. Implementing an America-First Offshore Energy Strategy, Exec. Order No. 13795, 82 Fed. Reg. 20815 (May 3, 2017).

71. BOEM, *supra* note 7, at 1 ("This Draft Proposed Program (DPP) would make more than 98 percent of the OCS available to consider for oil and gas leasing during the 2019-2024 period.")

72. See, e.g., *id.* at 5-13 (noting four planning areas included in the DPP were omitted from a chart because they "contain negligible hydrocarbon resources").

73. See generally Michael LeVine et al., *What About BOEM? The Need to Reform the Regulations Governing Offshore Oil and Gas Planning and Leasing*, 31 ALASKA L. REV. 231 (2014); Andrew Hartsig et al., *Next Steps to Reform the*

*Regulations Governing Offshore Oil and Gas Planning and Leasing*, 33 ALASKA L. REV. 1-30 (2016).

74. See *infra* Section III.C.4.

75. See generally OIL SPILL COMMISSION ACTION, ASSESSING PROGRESS THREE YEARS LATER (2013), available at [http://oscaction.org/wp-content/uploads/FINAL\\_OSCA-No2-booklet-Apr-2013\\_web.pdf](http://oscaction.org/wp-content/uploads/FINAL_OSCA-No2-booklet-Apr-2013_web.pdf). Among other things, former commissioners from the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling observed that operators and oil spill response organizations "significantly expanded the quality and quantity of the equipment to respond to a spill." *Id.* at 3.

76. CLEAR Act, H.R. 3534, 111th Cong. (2009-2010).

77. *Id.* §§101-103, 106, 107; see *infra* Part III.A.4. (explaining that MMS was broken apart to form BOEM, the Bureau of Safety and Environmental Enforcement (BSEE), and the Office of Natural Resources Revenue (ONRR)).

when preparing five-year leasing programs; and made other significant changes.<sup>78</sup>

Title V of the bill would have created restoration, research, and monitoring programs in the Gulf of Mexico region.<sup>79</sup> Title VI contained provisions to promote more holistic multisector planning on the OCS.<sup>80</sup> And Title VII would have changed laws relating to oil spill liability and response.<sup>81</sup> The House passed the CLEAR Act on July 30, 2010.<sup>82</sup>

The equivalent Senate response to the *Deepwater Horizon* disaster was S. 3663, the Clean Energy Jobs and Oil Spill Accountability Act of 2010.<sup>83</sup> The Senate bill contained many provisions similar to those in the CLEAR Act. Unlike the House, the Senate did not pass S. 3663. As a result, the 111th Congress failed to enact legislation that significantly reformed OCSLA and other laws governing oil and gas activities on the OCS.<sup>84</sup>

## 2. Recent Bills

Since the 111th Congress, lawmakers have continued to introduce legislation related to OCS oil and gas activities. Many of the CLEAR Act provisions were included in the Sustainable Energy Development Reform Act introduced in 2017.<sup>85</sup> Other bills have been designed to facilitate offshore drilling. For example, in the 113th Congress, the House passed the Offshore Energy and Jobs Act, H.R. 2231,<sup>86</sup> which would have expanded offshore leasing, removed safeguards designed to protect the marine environment, and privileged oil and gas operations over other ocean activities.<sup>87</sup> Other legislation—including a suite of bills introduced at the beginning of the 116th Congress—has attempted to prohibit leasing or drilling in certain areas of the OCS.<sup>88</sup> Thus far, Congress has passed none of these bills.

78. *Id.* §§203, 205, 207(d), 208, 209.

79. *Id.* §501, 502.

80. *Id.* §§601-603.

81. *See generally id.* tit. VII.

82. *See* 111 CONG. REC. D888 (daily ed. July 30, 2010).

83. Clean Energy Jobs and Oil Spill Accountability Act of 2010, S. 3663, 111th Cong. (2010).

84. The 111th Congress did pass the RESTORE Act, which addresses marine and coastal restoration after the *Deepwater Horizon* disaster, including the allocation of civil and administrative penalties. President Obama signed it into law on July 6, 2012. The RESTORE Act established an ecosystem restoration council, allocated 80% of civil and administrative penalties from the *Deepwater Horizon* spill to a restoration fund, and identified a framework under which the funds can be used. The RESTORE Act did not alter the way the federal government manages OCS oil and gas activities. *See* RESTORE Act of 2012; Moving Ahead for Progress in the 21st Century Act division A, tit. I, subtit. F (Pub. L. No. 112-141, 126 Stat. 405 (2012)).

85. *See* H.R. 4426, 115th Cong. tit. V (introduced by Rep. Raul Grijalva (D-Ariz.) Nov. 16, 2017).

86. Offshore Energy and Jobs Act, H.R. 2231, 113th Cong. (2013).

87. *Id.*; *see also* *Hearing on H.R. 2231, the "Offshore Energy and Jobs Act," Before the Subcommittee on Energy and Mineral Resources of the House Committee on Natural Resources*, 113th Cong. (2013) (written testimony of Michael LeVine, Pacific Senior Counsel, Oceana).

88. *See, e.g.*, COAST Anti-Drilling Act of 2019; Coastal Economies Protection Act of 2019; California Clean Coast Act of 2019; New England Coastal Protection Act of 2019; Florida Coastal Protection Act of 2019; West Coast

## III. Recommended Statutory Changes

To identify changes needed to address the deficiencies summarized above, we have looked to a variety of sources, including proposed legislation, recommendations of the National Commission, congressional testimony, advocacy organizations, and academic analyses. The reforms outlined below would improve choices about when, where, and under what conditions to allow operations; improve response and liability; and increase stewardship.

As described above, we also believe that a fundamental change in the manner in which the United States addresses ocean governance, particularly in the face of climate change, is warranted. More targeted reforms are also required, and in this part, we organize those recommended reforms into four categories: (1) overarching objectives and policy; (2) planning and leasing; (3) operations and response; and (4) financial responsibility and funding.

### A. Overarching Objectives and Policy Changes

As explained above, technological advancements have enabled the oil and gas industry to push into ever-deeper and more remote waters. Oversight has not “kept pace with rapid changes in the technology, practices, and risks associated with the different geological and ocean environments being explored and developed for oil and gas production.”<sup>89</sup> Congress could address this issue in part by modernizing key policies and components of OCSLA and related legislation. Congress could amend the law to prioritize the maintenance of healthy, productive ocean ecosystems; require assessment of climate change; prioritize science, including indigenous knowledge and identification of important ecological areas; codify the division between management of leasing, oversight, and revenue; prohibit leasing in specific portions of the OCS; and improve environmental analyses.

### I. Prioritize Maintaining Healthy, Productive Ocean Ecosystems

OCSLA states the OCS should be made available for “expeditious and orderly development, subject to environmental safeguards.”<sup>90</sup> On its face, this directive does not necessarily privilege development over the protection of marine and coastal ecosystems. In practice, however, managers implementing OCSLA have often prioritized extraction of oil and gas resources ahead of stewardship of ocean resources.

Investigations have found that managers have discouraged staff from “reaching conclusions about potential environmental impacts” if those conclusions would make things more difficult for OCS leaseholders and cause “unnecessary delays for operators.”<sup>91</sup> Some DOI scientists

Ocean Protection Act of 2019; Stop Arctic Ocean Drilling Act of 2019; Defend Our Coast Act of 2019.

89. NATIONAL COMMISSION, *supra* note 3, at 251.

90. 43 U.S.C. §1332(3).

91. NATIONAL COMMISSION, *supra* note 3, at 82.



said their managers expected NEPA analyses to “always be a ‘green light’ to proceed” with industrial activities.<sup>92</sup> Some managers have also “reportedly ‘changed or minimized the . . . scientists’ potential environmental impact findings in [NEPA] documents to expedite” OCS oil and gas activities.<sup>93</sup> A U.S. Government Accountability Office (GAO) study found allegations that agency managers suppressed or altered scientists’ work on environmental issues.<sup>94</sup>

The foregoing examples show that federal managers at DOI have—at times, at least—placed greater emphasis on OCSLA’s call for “expeditious development” than on its call to heed “environmental safeguards.” Congress could address this problem by amending OCSLA’s policy statement. A revised policy could make clear that protection, maintenance, and restoration of coastal and ocean ecosystems are the primary imperatives on the OCS. The policy could help ensure that leasing, exploration, development, and production of OCS oil and gas resources are considered only when those activities will not compromise the functioning of ocean and coastal ecosystems.

A revised policy statement that prioritizes protection of healthy, functioning ocean and coastal ecosystems would also better align with findings and recommendations of reports issued by prominent ocean policy commissions. For example, the Pew Ocean Commission’s “fundamental conclusion” was that the United States must “ensure healthy, productive, and resilient marine ecosystems for present and future generations.”<sup>95</sup> Likewise, some of the guiding principles recommended by the National Ocean Commission include stewardship, sustainability, and preservation of marine biodiversity.<sup>96</sup>

When President Obama created the National Ocean Policy in 2010, the policy called for protection, maintenance, and restoration of “the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources.”<sup>97</sup> President Trump’s Ocean Policy, which revoked and replaced President Obama’s policy, recognized the importance of “[c]lean, healthy waters.”<sup>98</sup> Changing OCSLA’s policy statement as described above would help

ensure that governance of offshore oil and gas activities is consistent with these recommendations.

## 2. Require Assessment of Climate Change

As discussed above, there is an imperative to move away from fossil fuels and toward renewable sources of energy. In addition, and within the current statutory scheme, steps could be taken to recognize that need and to factor climate change into decisions about whether and under what conditions to allow offshore oil and gas extraction.

Within OCSLA, Congress could explicitly recognize that the United States must take steps to reduce carbon dioxide emissions and transition—quickly and completely—to renewable energy sources. To help effectuate that policy, Congress could modernize OCSLA by enacting provisions to ensure that environmental analyses properly account for the climate and ocean acidification impacts resulting directly from OCS activities, like drilling (“upstream impacts”), as well as the climate impacts associated with combustion of oil and gas that is extracted from the OCS (“downstream impacts”).

For example, operations on leases sold under the 2012-2017 OCS Oil and Gas Leasing Program could generate more than 147 million tons of carbon dioxide equivalent emissions.<sup>99</sup> At present, the federal government does not quantify or charge lessees for costs associated with those emissions. The costs, however, can be quantified. Federal agencies use the social cost of carbon<sup>100</sup> to estimate the climate benefits of rulemakings.<sup>101</sup> Congress could amend OCSLA to require DOI to apply the social cost of carbon to OCS activities and adjust rent and royalty provisions to recoup costs associated with climate change impacts. Accounting for these costs could create a significant source of revenue that could be used to help mitigate climate impacts or hasten the transition to renewable energy sources. It would also help ensure taxpayers receive fair compensation from oil and gas companies that are profiting from public resources.

Congress should also ensure that assessment of climate impacts from OCS activities includes an evaluation of the impacts of black carbon. Black carbon is a particular concern in the Arctic because it has serious impacts on human health and because it is a potent short-term climate-forcing agent.<sup>102</sup> Emissions of black carbon have

92. *Id.*

93. *Id.*

94. GAO, OFFSHORE OIL AND GAS DEVELOPMENT: ADDITIONAL GUIDANCE WOULD HELP STRENGTHEN THE MINERALS MANAGEMENT SERVICE’S ASSESSMENT OF ENVIRONMENTAL IMPACTS IN THE NORTH ALEUTIAN BASIN 24 (2010) (GAO-10-276), available at <https://www.gao.gov/new.items/d10276.pdf>.

95. PEW OCEANS COMMISSION, *supra* note 9, at ix.

96. U.S. COMMISSION ON OCEAN POLICY, *supra* note 9, at 6.

97. Stewardship of the Ocean, Our Coasts, and the Great Lakes, Exec. Order No. 13547 of July 19, 2010, 75 Fed. Reg. 43023, 43023 (July 22, 2010), *revoked by* Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States, Exec. Order No. 13840 of June 19, 2018, 83 Fed. Reg. 29431, 29433 (June 22, 2018). The 2010 Obama National Ocean Policy also included calls for “improv[ing] the resiliency of ocean, coastal, and Great Lakes ecosystems, communities, and economies.” *Id.* §2(a)(ii).

98. Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States, Exec. Order No. 13840 of June 19, 2018, 83 Fed. Reg. 29431, 29431 (June 22, 2018).

99. BOEM, DOI, OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM: 2012-2017, at 4-201 tbl. 4.4.4-2 (2012), [http://www.boem.gov/uploadedFiles/BOEM/Oil\\_and\\_Gas\\_Energy\\_Program/Leasing/Five\\_Year\\_Program/2012-2017\\_Five\\_Year\\_Program/2012-2017\\_Final\\_PEIS.pdf](http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/2012-2017_Final_PEIS.pdf).

100. See generally U.S. EPA, EPA FACT SHEET: SOCIAL COST OF CARBON (2016), available at [https://www.epa.gov/sites/production/files/2016-12/documents/social\\_cost\\_of\\_carbon\\_fact\\_sheet.pdf](https://www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf).

101. See, e.g., *id.* at 4 (providing examples of use of social cost of carbon in rulemakings). The Trump Administration has significantly revised the manner in which these calculations are made in such a way that has the effect of reducing the cost of emissions. See, e.g., Brad Plumer, *Trump Put a Low Cost on Carbon Emissions. Here’s Why It Matters.*, N.Y. TIMES, Aug. 23, 2018, <https://www.nytimes.com/2018/08/23/climate/social-cost-carbon.html>.

102. See generally U.S. EPA, METHANE AND BLACK CARBON IMPACTS ON THE ARCTIC: COMMUNICATING THE SCIENCE (2016), available at [https://www.epa.gov/sites/production/files/2016-12/documents/methane\\_black\\_carbon\\_impacts\\_on\\_the\\_arctic\\_communicating\\_the\\_science.pdf](https://www.epa.gov/sites/production/files/2016-12/documents/methane_black_carbon_impacts_on_the_arctic_communicating_the_science.pdf).

substantial, long-term implications for the region and the people who live there.

### 3. *Prioritize Science, Including Indigenous Knowledge and Identification of Important Ecological Areas*

OCSLA does not require any specific level of baseline scientific information before managers and decisionmakers consider opening an area of the OCS to leasing, exploration, development, or production. As a result, management decisions about OCS activities may be made in the absence of critical scientific information, rather than on the basis of that information.<sup>103</sup> In addition, in the event of an oil spill, the natural resource damage assessment (NRDA) process requires the effects of the spill to be measured against the baseline conditions that existed before it occurred.<sup>104</sup> That process is made more difficult in the absence of baseline scientific information.

Congress could amend OCSLA to ensure that OCS managers and decisionmakers have the baseline scientific information needed to make informed decisions about whether, when, where, and under what conditions OCS oil and gas activities may be permitted—and to ensure natural resource trustees have an adequate baseline in the event of an oil spill. For instance, Congress could amend OCSLA to require a threshold level of baseline scientific information—and a period of monitoring and observation—before an area is eligible to be considered for leasing.<sup>105</sup> Relevant scientific information could include not only physical characteristics (e.g., data on bathymetry, currents, wind, weather, sea ice, water temperatures, salinity, etc.), but ecosystem characteristics (e.g., distribution of marine species, food web characteristics, etc.).

<sup>103</sup> [19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/arctic-methane-blackcarbon\\_communicating-the-science.pdf](http://january2017.snapshot.epa.gov/sites/production/files/2016-09/documents/arctic-methane-blackcarbon_communicating-the-science.pdf).

<sup>103</sup> See, e.g., *Native Vill. of Pt. Hope v. Salazar*, 730 F. Supp. 2d 1009, 1019, 40 ELR 20220 (D. Alaska 2010) (finding that DOI had allowed leasing in the Chukchi Sea despite recognized gaps in the available scientific information that made it impossible to evaluate some of the potential impacts from leasing); *Center for Biological Diversity v. U.S. Dept of the Interior*, 563 F.3d 466, 486-87 (D.C. Cir. 2009) (acknowledging that the need to gather information does not accrue at the five-year program stage). There is a particular gap in scientific information about the Arctic OCS. See, e.g., NATIONAL COMMISSION, *supra* note 3, at 303 (“[S]cientific research on the ecosystems of the Arctic is difficult and expensive. Good information exists for only a few species, and even for those, just for certain times of the year or in certain areas.”). The National Commission recommended “an immediate, comprehensive federal research effort to provide a foundation of scientific information on the Arctic (with periodic review by the National Academy of Sciences), and annual stock assessments for marine mammals, fish, and birds that use the Beaufort and Chukchi Seas.” *Id.*

<sup>104</sup> See, e.g., 15 C.F.R. §990.52 (2010) (noting natural resource trustees “must quantify the degree, and spatial and temporal extent of such injuries relative to baseline”); see also *id.* §990.30 (defining “baseline” as “the condition of the natural resources and services that would have existed had the [oil spill] incident not occurred”).

<sup>105</sup> Such a requirement could help avoid claims that BOEM lacks sufficient baseline science at the five-year program and lease sale stages. See, e.g., *Center for Biological Diversity*, 563 F.3d at 486-87 (denying plaintiff’s claim that baseline science gaps at the lease sale stage were fatal in part because the agency recognized the gaps and claimed it would address them in later stages of the OCSLA process).

In parallel with “western science,” the agency also must consider the traditional or indigenous knowledge held by indigenous coastal residents and local knowledge held by others. Such knowledge contributes substantially to our understanding of coastal and marine ecosystems.<sup>106</sup> OCSLA, however, does not explicitly require managers to seek out local, traditional, or indigenous knowledge. This gap is especially troubling in the Arctic due to the importance of ocean resources to indigenous cultures, the significance of traditional or indigenous knowledge, and the importance of engaging with Arctic communities in ways that respect their rights as knowledge-holders. Congress could revise OCSLA to require managers to seek out local, traditional, and/or indigenous knowledge, and to incorporate that knowledge into their decisionmaking process prior to making OCS areas available for leasing.

Similarly, existing law does not require decisionmakers to identify or protect areas of the OCS that have particular importance to the marine environment before making areas available for leasing. Instead, DOI’s “areawide” leasing system allows for vast areas of the OCS to be made available in the absence of any detailed assessment of their ecological value. This approach may result in leasing and development in or near areas that are especially important to ecosystem functioning.

To avoid this scenario, Congress could amend OCSLA to require managers to identify and protect important marine areas before leasing decisions are made.<sup>107</sup> Important marine areas include, but are not limited to, essential wildlife habitat, areas that are especially productive, migratory corridors, and areas used for subsistence purposes.<sup>108</sup> To ensure important marine areas are not impaired by oil and gas activities, Congress could stipulate that regulatory agencies withdraw them from leasing and establish specific and stringent standards to ensure that surrounding operations do not disturb the health and functioning of important areas.

<sup>106</sup> JOEL P. CLEMENT ET AL., INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC: A REPORT TO THE PRESIDENT 27 (2013) (observing that

[l]ocal and traditional knowledge is considered by many to be an essential part of science-based environmental policy-making. Traditional knowledge is particularly valuable as it represents observations made repeatedly over many generations. During the current period of rapid change, the wealth of knowledge held by Alaska Natives can make key contributions to resource management and to collaborative research projects.

[https://www.afsc.noaa.gov/publications/misc\\_pdf/iamreport.pdf](https://www.afsc.noaa.gov/publications/misc_pdf/iamreport.pdf). See also Julie Raymond-Yakoubian et al., *The Incorporation of Traditional Knowledge Into Alaska Federal Fisheries Management*, 78 MARINE POLICY 132-42 (2017) (defining traditional knowledge and discussing the integration of traditional knowledge in fishery management decisions).

<sup>107</sup> Cf. NATIONAL COMMISSION, *supra* note 3, at 262 (recommending that, “[i]n less well-explored areas, [BOEM] should reduce the size of lease sales so their geographic scope allows for a meaningful analysis of potential environmental impacts and identification of areas of ecological significance.” (emphasis added)).

<sup>108</sup> JIM AYERS ET AL., OCEANA, IMPORTANT ECOLOGICAL AREAS IN THE OCEAN: A COMPREHENSIVE ECOSYSTEM PROTECTION APPROACH TO THE SPATIAL MANAGEMENT OF MARINE RESOURCES 3 (2010), available at <https://ocean.org/reports/important-ecological-areas-ocean>.

#### 4. Codify the Division Between Management of Leasing, Oversight, and Revenue

After the *Deepwater Horizon* disaster, then-Secretary of the Interior Salazar abolished the federal agency that had been charged with managing OCS oil and gas activities and created three separate agencies to take its place. The original agency—MMS—was charged with: (1) managing revenue collection; (2) developing and implementing OCS leasing plans; and (3) overseeing offshore operations and ensuring compliance with safety laws and regulations.<sup>109</sup> Secretary Salazar noted that “[t]he Minerals Management Service has three distinct and conflicting missions that—for the benefit of effective enforcement energy development, and revenue collection—must be divided.”<sup>110</sup>

The new three-agency system attempted to eliminate these conflicts. The Office of Natural Resources Revenue (ONRR) manages revenue from offshore leases. The Bureau of Ocean Energy Management (BOEM) carries out planning, leasing environmental studies, NEPA analysis, resource evaluation, and other related functions. The Bureau of Safety and Environmental Enforcement (BSEE) enforces safety and environmental regulations. This separation helps ensure that each agency can focus on its particular mission. In other words, there is less chance that BSEE staff will compromise safety and enforcement obligations if the same agency is not also responsible for revenue generation and collection.

At present, ONRR, BOEM, and BSEE are creations of the Secretary of the Interior, not Congress.<sup>111</sup> Just as Secretary Salazar created the agencies, a future Secretary of the Interior could abolish them or reorganize them in a different way.<sup>112</sup> In fact, reports suggest the Trump Administration has considered recombining BOEM and BSEE, recognizing that such a move may be perceived as a rollback of “post-*Deepwater Horizon* safety reforms.”<sup>113</sup>

To avoid future reshuffling of agency responsibilities and—more importantly—to prevent the sort of “mission conflict” that plagued MMS, Congress could codify the existing agencies and their responsibilities by creating an organic act for the three bureaus.<sup>114</sup> In doing so, Congress would reassert its authority to establish and organize

government entities<sup>115</sup> and remove the Secretary of the Interior’s ability to reorganize the agencies without congressional approval.

#### 5. Prohibit Leasing in Specific Portions of the OCS

As noted above, the Trump Administration has proposed making virtually the entire OCS available to leasing, including areas where offshore leasing is deeply unpopular with adjacent coastal communities and areas in which drilling is likely to conflict with other ocean uses, such as tourism or commercial fishing.<sup>116</sup> In addition, the Administration included areas of the OCS that—according to the analysis in the DPP itself—have little or no economically recoverable oil and gas, even under a favorable, high-oil-price scenario.<sup>117</sup> Some of the areas proposed for leasing had so few oil and gas resources that they were excluded from a table showing the “undiscovered economically recoverable resource” of OCS planning areas because they had “negligible hydrocarbon resources.”<sup>118</sup>

The opposition by local coastal communities, demonstration that there are areas in which there are few hydrocarbon resources, and potential conflict with other activities makes it clear that there are compelling reasons to exclude certain areas from leasing. Congress could reduce conflict and help protect important ocean areas by amend-

115. *Id.* at 16 (noting that “[c]onstitutionally, the establishment and organization of governmental entities is the province of Congress.”).

116. After meeting with Florida’s governor, Secretary of the Interior Ryan Zinke announced via Twitter that he would remove Florida from the 2019-2024 OCS Leasing Program due to Florida’s economic reliance on tourism. Secretary of the Interior Ryan Zinke (@SecretaryZinke), Twitter (Jan. 9, 2018, 2:20 p.m.) (“After talking with @FLGovScott, I am removing #Florida from the draft offshore plan.”). Shortly after Secretary Zinke’s Florida tweet, 22 U.S. senators signed a letter to Secretary Zinke, requesting that he also remove areas adjacent to their states. See Umair Irfan, *Florida Got an Exemption to the Offshore Drilling Plan. Now 12 Other States Want One Too.*, VOX, Jan. 12, 2018, <https://www.vox.com/energy-and-environment/2018/1/10/16870450/ocs-offshore-drilling-oil-gas-lease-zinke-florida>.

In Alaska, local tribes and northern Bering Sea communities requested that planning areas in the Bering Sea be excluded from the 2019-2024 OCS Leasing Program. See, e.g., Letter from Melanie Bahnke, Kawerak, Inc., to Kelly Hammerle, Department of the Interior (Jan. 5, 2018) (requesting that BOEM exclude the Norton Sound, St. Matthew-Hall, Navarin Basin, and Hope Basin Planning Areas from the 2019-2024 Five-Year Program); Letter from Vivian Korhuit, Association of Village Council Presidents, to Renee Orr, Department of the Interior (Feb. 26, 2018) (making the same request); Letter from Harry Lincoln, Bering Sea Elders Group, to Kelly Hammerle, Department of the Interior (Mar. 9, 2018) (making the same request). Similarly, Alaska’s congressional delegation and governor requested DOI drop from consideration 11 of the Alaska Region’s OCS planning areas. Letter from Senator Murkowski, Senator Sullivan, and Representative Young to Secretary of the Interior Zinke (Jan. 26, 2018) (requesting removal of Hope Basin, Norton Basin, St. Matthew-Hall, Navarin Basin, Aleutian Basin, Bowers Basin, Aleutian Arc, St. George Basin, Shumagin, Kodiak, and Gulf of Alaska Planning Areas from the 2019-2024 OCS Leasing Program); Letter from Bill Walker, Governor of Alaska to Kelly Hammerle, Department of the Interior (Mar. 9, 2018); see also Letter from Dan Hull, North Pacific Fishery Management Council, to Kelly Hammerle, Department of the Interior (Mar. 5, 2018) (making the same request).

117. BOEM, *supra* note 7, at 5-3 tbl. 5.1 (listing 11 OCS planning areas as having less than one billion barrels of oil equivalent under the most favorable economic scenario, and noting that four other OCS planning areas were not listed in the table because they contain “negligible hydrocarbon resources”).

118. *Id.*

109. HENRY B. HOGUE, CONGRESSIONAL RESEARCH SERVICE, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL 2 (2010), available at <https://fas.org/sgp/crs/misc/R41485.pdf>.

110. Press Release, DOI, Secretary Salazar Divides MMS’s Three Conflicting Missions (May 19, 2010), <https://www.doi.gov/news/pressreleases/Salazar-Divides-MMSs-Three-Conflicting-Missions>. The National Commission reinforced this statement, finding that former MMS directors admitted that royalty issues took up most of their time—“at the expense of offshore regulatory oversight.” NATIONAL COMMISSION, *supra* note 3, at 76.

111. HOGUE, *supra* note 109, at 16.

112. *Id.* (noting that in the absence of congressional action, Secretaries of the Interior retain the ability to reorganize the former MMS’ functions “in accordance with their policy preferences and priorities”).

113. Adam Federman, *How Far Will the Trump Administration Go to Loosen Offshore Drilling Rules?*, THE NATION, Sept. 12, 2018, <https://www.thenation.com/article/how-far-will-the-trump-administration-go-to-loosen-offshore-drilling-rules/>.

114. HOGUE, *supra* note 109, at 16, 21-22.

ing OCSLA to prohibit leasing in certain areas—either indefinitely or for a set period of time. Taking some OCS planning areas off the table could reduce the geographic scope of environmental review documents at the planning and leasing stage, which could result in more meaningful environmental analyses.<sup>119</sup> In addition, it could result in more focused, targeted public comment.

This idea is not novel. For the better part of two decades, Congress included provisions in appropriations bills that prevented leasing in broad swaths of the OCS.<sup>120</sup> These provisions were eventually allowed to lapse. However, as noted above, lawmakers have recently introduced bills that would prohibit leasing in various parts of the OCS, including the Atlantic, Pacific, eastern Gulf of Mexico, and Arctic.<sup>121</sup> These types of prohibitions could be incorporated into a broader OCSLA reform bill.

## 6. Improve Environmental Analyses

The *Deepwater Horizon* disaster revealed significant issues with DOI's analyses of the potential environmental impacts of OCS oil and gas activities. Among other problems, DOI used tiering and categorical exclusions inappropriately and “fail[ed] to develop formal NEPA guidance.”<sup>122</sup> Congress could take steps to foster improved NEPA analyses and ensure potential environmental impacts are appropriately evaluated and considered.

Initially, Congress could enact reforms designed to improve DOI's NEPA analyses, including requiring DOI to implement NEPA guidance. This step was recommended by the National Commission and GAO.<sup>123</sup> Congress could further direct that such guidance meet existing NEPA obligations by requiring preparation of full environmental impact statements (EIS) for five-year programs, lease sales, and exploration activities in frontier areas.

Congress could also require DOI to consider specific alternatives in five-year program EIS, such as conservation alternatives or renewable energy alternatives. At the lease sale stage, the agency could be required to undertake site-specific analyses, recognizing that individual sites within a broad lease sale area may have different characteristics, such as water depth, distance from shore, location relative to currents, location relative to marine mammal migration routes, location relative to subsistence uses, or other

factors.<sup>124</sup> At the exploration stage, Congress could amend OCSLA to require preparation of an EIS for projects proposed in areas not subject to active exploration or development and areas in which exploration and development would require new or unconventional techniques or technologies. To ensure rigorous consideration of every exploration plan, Congress could prohibit use of “categorical exclusions” at the exploration plan stage.

Congress should also ensure that DOI considers a worst-case oil spill, even if probability of such a disaster is low.<sup>125</sup> Before the *Deepwater Horizon*, federal regulators generally did not analyze low-probability, high-risk events. For example, environmental assessments for proposed exploration activities in the Beaufort and Chukchi Seas explained that an extremely large spill from a blowout was “not a reasonably foreseeable event” and therefore was not analyzed as part of the assessment’s “worst-case scenario.”<sup>126</sup> The environmental assessments instead reviewed the potential effects of a small, 48-barrel fuel transfer spill.<sup>127</sup>

After the *Deepwater Horizon* disaster, DOI started to analyze the impacts of a “very large oil spill” in at least some of its NEPA documents. For example, in 2011, DOI released a supplemental EIS for Chukchi Sea Lease Sale 193 that included a “very large oil spill” analysis.<sup>128</sup> Similarly, in a 2010 review, the Council on Environmental Quality asserted that, in light of the *Deepwater Horizon* disaster, DOI would “take steps to incorporate catastrophic risk analysis” when assessing operations on the OCS.<sup>129</sup> Even if regulators now agree that these analyses are required under current law, Congress can ensure that DOI continues to do so by explicitly requiring the agency to consider these impacts at all stages of the OCSLA process.

119. Cf. NATIONAL COMMISSION, *supra* note 3, at 261 (noting that OCS lease sales covering large geographic areas make it difficult to conduct meaningful NEPA analysis).

120. CURRY L. HAGERTY, CONGRESSIONAL RESEARCH SERVICE, OUTER CONTINENTAL SHELF MORATORIA ON OIL AND GAS DEVELOPMENT 5 (2011) (listing congressional OCS moratoria enacted via DOI appropriations from 1982 to 1996), available at <https://fas.org/sgp/crs/misc/R41132.pdf>.

121. See, e.g., COAST Anti-Drilling Act of 2019; Coastal Economies Protection Act of 2019; California Clean Coast Act of 2019; New England Coastal Protection Act of 2019; Florida Coastal Protection Act of 2019; West Coast Ocean Protection Act of 2019; Stop Arctic Ocean Drilling Act of 2019; Defend Our Coast Act of 2019.

122. NATIONAL COMMISSION, *supra* note 3, at 260–61.

123. See *id.* at 261; GAO, *supra* note 94, at 21.

124. As discussed *infra* Section III.B.3., the elimination of areawide leasing would help these analyses.

125. See, e.g., 40 C.F.R. §1502.22(b)(1) (noting that in a NEPA analysis when information is missing or unavailable, “reasonably foreseeable” impacts include “impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason”).

126. MMS, ENVIRONMENTAL ASSESSMENT: SHELL OFFSHORE INC. 2010 OUTER CONTINENTAL SHELF LEASE EXPLORATION PLAN FOR CAMDEN BAY, ALASKA, BEAUFORT SEA LEASES A-2 (2009); MMS, ENVIRONMENTAL ASSESSMENT: SHELL GULF OF MEXICO, INC. 2010 EXPLORATION DRILLING PROGRAM, BURGER, CRACKERJACK, AND SW SHOEBILL PROSPECTS CHUKCHI SEA OUTER CONTINENTAL SHELF A-2 (2009) [hereinafter MMS CHUKCHI SEA OCS].

127. See, e.g., MMS CHUKCHI SEA OCS, *supra* note 126, at 31–32. Based on tiering to a broad-scale EIS at the lease-sale stage, this approach was validated by the U.S. Court of Appeals for the Ninth Circuit in an earlier challenge to an exploration plan. See *Alaska Wilderness League v. Kempthorne*, 548 F.3d 815, 832–33 (9th Cir. 2008), *superseded by* *Alaska Wilderness League v. Salazar*, 571 F.3d 859 (9th Cir. 2009).

128. BOEM, FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT, OIL AND GAS LEASE SALE 193, CHUKCHI SEA PLANNING AREA app. D (2011), [https://www.boem.gov/uploadedFiles/BOEM/About\\_BOEM/BOEM\\_Regions/Alaska\\_Region/Environment/Environmental\\_Analysis/2011-041v1.pdf](https://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Environment/Environmental_Analysis/2011-041v1.pdf).

129. COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 42, at 27. The National Commission also recommended that DOI “incorporate the ‘worst-case scenario’ calculations from industry oil spill response plans into NEPA documents and other environmental analyses or reviews” to inform the agency’s “estimates for potential oil spill situations in its environmental analyses.” NATIONAL COMMISSION, *supra* note 3, at 267.

## B. Modernize Planning and Leasing

The first steps of the OCSLA process are the broadest: DOI sets the stage by determining where and when offshore leasing will take place. These steps have been subject to significant litigation and controversy, including legal challenges to many five-year programs and some individual lease sales.<sup>130</sup> The Trump Administration's decision to begin a new five-year planning process several years ahead of schedule has added another layer of controversy to the process.

The underpinning of this litigation and controversy is broadly stated statutory direction that has not been clarified in any meaningful way by implementing regulations.<sup>131</sup> Changes to OCSLA §§18 and 9 would help ensure that planning and leasing processes align with current policies, more effectively incorporate relevant information, and provide greater certainty.

### I. Section 18 Factors

OCSLA §18(a) directs the Secretary of the Interior to prepare a five-year leasing program that “consist[s] of a schedule of proposed lease sales indicating, as precisely as possible, the size, timing, and location of leasing activity which he determines will best meet national energy needs for the five-year period following its approval or reapproval.”<sup>132</sup> It then requires the Secretary to abide by a series of overlapping principles. The program must be “conducted in a manner which considers economic, social, and environmental values of the renewable and nonrenewable resources contained in the [OCS], and the potential impact of oil and gas exploration on other resource values of the [OCS] and the marine, coastal, and human environments.”<sup>133</sup> It also must “obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>134</sup> And the “[t]iming and location of exploration, development, and production of oil and gas” allowed pursuant to the program must be based on a consideration of eight more specific factors.<sup>135</sup>

130. See, e.g., LeVine et al., *supra* note 21, at 1315-25 (describing various legal challenges to OCS planning, leasing, and other activities).

131. See generally LeVine et al., *supra* note 73; Hartsig et al., *supra* note 73.

132. 43 U.S.C. §1344(a).

133. *Id.* §1344(a)(1).

134. *Id.* §1344(a)(3).

135. These factors are:

- (A) existing information concerning the geographical, geological, and ecological characteristics of such regions;
- (B) an equitable sharing of developmental benefits and environmental risks among the various regions;
- (C) the location of such regions with respect to, and the relative needs of, regional and national energy markets;
- (D) the location of such regions with respect to other uses of the sea and seabed, including fisheries, navigation, existing or proposed sealanes, potential sites of deepwater ports, and other anticipated uses of the resources and space of the outer Continental Shelf;

Neither the statute nor implementing regulations explain how managers are to interpret or implement these directives. Since the first five-year program was prepared in 1980, DOI has generally sought to meet these obligations using a cost-benefit analysis. The use of this approach was upheld by the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit,<sup>136</sup> and arguably some form of cost-benefit analysis is required.<sup>137</sup> The cost-benefit methodology has not been codified in statute or regulation, and there has been significant controversy and litigation over the manner in which DOI has considered the various §18 factors.<sup>138</sup> Congress could modify the statute to clarify the overlapping factors and direct DOI to implement regulations governing the cost-benefit calculations.

In revisiting the factors, Congress could also update the statutory language to reflect the growing recognition that the health of marine ecosystems and other environmental factors should be given priority.<sup>139</sup> It could also mandate the consideration of option value,<sup>140</sup> and require explicit consideration of the particular risks inherent in operating in ultra-deepwater or frontier areas, like the Arctic Ocean.

### 2. Five-Year Program Stages

DOI prepares the five-year program in a series of steps. It begins with a request for information, proceeds to a draft proposed program, a proposed program, then a proposed final program.<sup>141</sup> The proposed final program is subject to a 60-day waiting period for review by Congress before it can be finalized. The agency prepares a programmatic EIS concurrently with the preparation of the five-year program.<sup>142</sup> DOI has interpreted the process as one of winnowing: areas included in early stages may be excluded in

(E) the interest of potential oil and gas producers in the development of oil and gas resources as indicated by exploration or nomination;

(F) laws, goals, and policies of affected States which have been specifically identified by the Governors of such States as relevant matters for the Secretary's consideration;

(G) the relative environmental sensitivity and marine productivity of different areas of the outer Continental Shelf; and

(H) relevant environmental and predictive information for different areas of the outer Continental Shelf.

*Id.* §1344(a)(2).

136. *California v. Watt*, 668 F.2d 1290, 1317-18, 12 ELR 20001 (D.C. Cir. 1981) (finding it “reasonable to conclude that within the section's proper balance there is some notion of ‘costs’ and ‘benefits’”).

137. See Hartsig et al., *supra* note 73, at 19 (discussing use of cost-benefit analysis).

138. See, e.g., *Watt*, 668 F.2d at 1315-18 (discussing balancing of §18 factors); *California v. Watt*, 712 F.2d 584, 597-601, 13 ELR 20723 (D.C. Cir. 1983) (discussing balancing and cost-benefit analyses).

139. See *supra* Section III.A.1. (discussing revision of OCSLA's policy statement).

140. See, e.g., Hein, *supra* note 54, at 33-34.

141. See BOEM, OCS OIL AND GAS LEASING, EXPLORATION, AND DEVELOPMENT PROCESS, <https://www.boem.gov/BOEM-OCS-Oil-Gas-Leasing-Process/>.

142. *Id.*; see also ADAM VANN, CONGRESSIONAL RESEARCH SERVICE, OFFSHORE OIL AND GAS DEVELOPMENT: LEGAL FRAMEWORK 7-8 (2018) (“The development of the five-year program is considered a major federal action significantly affecting the quality of the human environment and as such requires preparation of an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA).”), available at <https://fas.org/sgp/crs/misc/RL33404.pdf>.

later stages, but, once excluded, a planning area may not be added back at a later stage.<sup>143</sup>

Neither statute nor regulation describes the steps required to develop a five-year program or the “winnowing” nature of the process. Lawmakers can provide additional certainty and make the five-year program process more transparent to the public by codifying both the requisite steps and the winnowing process.

### 3. Areawide Leasing

Prior to 1982, DOI conducted offshore leasing using a “tract nomination” system. DOI issued a call for nominations, requesting that oil companies identify promising tracts within an OCS region. After evaluating these nominations, DOI would decide which tracts to offer on the basis of “the past leasing history of the area, economic and environmental considerations, multiple-use conflicts, and the estimated potential of the sale area.”<sup>144</sup>

Industry pushed to change this system in the late 1970s and early 1980s.<sup>145</sup> This push coincided with the appointment of James Watt as President Ronald Reagan’s Secretary of the Interior. Secretary Watt heeded industry’s call and committed to making one billion acres of offshore area available to companies in the 1982-1987 Five-Year Leasing Program.<sup>146</sup> To meet this promise, Secretary Watt replaced the tract nomination process with an “areawide” leasing process. Under the areawide system, all the lease tracts in entire planning areas—which can be tens of millions of acres in size—were offered for lease at one time.<sup>147</sup>

Areawide leasing was controversial when first implemented,<sup>148</sup> but it became DOI’s default method of selling leases. While there may have been reasons for changing the system in the early 1980s,<sup>149</sup> there is now good cause to retreat from areawide leasing. Areawide leasing can have the effect of reducing competition and, therefore, revenue to the U.S. Treasury.<sup>150</sup> In BOEM’s August 2017 OCS lease sales, for example, 90% of the tracts that were sold received only one bid (i.e., there was no evidence of competitive bidding). Over the past 20 years, of all the

Gulf of Mexico OCS leases that received bids, more than 75% received only one bid.

Areawide leasing also makes meaningful environmental analysis difficult.<sup>151</sup> Ultimately, areawide leasing can be seen as a political tool that allows DOI to claim that it is making available for lease hundreds of millions of OCS acres—even though there is no possibility that companies will bid on most of them.<sup>152</sup>

In the Arctic planning areas, DOI has already recognized that a more targeted approach is warranted. In the 2012-2017 Five-Year Program, the agency excluded a series of sensitive areas from leasing under that program. In so doing, it noted “[m]ore focused leasing is geographically targeted in scope and could be used in any OCS region to achieve an appropriate balance between making resources available and limiting conflicts . . . by making certain determinations from the outset about which blocks within the planning area are most suitable for leasing.”<sup>153</sup>

For some areas of the OCS, it may not be necessary to revert fully to the tract nomination process. There must, however, be a compromise system in which DOI makes available only those areas in which there is some industry interest and where it can be shown that industry can operate safely. There is good reason to explore these possibilities in frontier areas, like the Arctic, if leasing takes place there in the future. Congress could direct changes to the leasing process either as part of the development of the five-year program in §18 or as part of the management of lease sales in §9.

### 4. Update Regulations

Regulations implementing the five-year program and leasing sections of OCSLA are outdated and insufficient. As we have covered in detail elsewhere, these regulations were promulgated in the early 1980s and have not changed substantively in the nearly 40 years since.<sup>154</sup> As a result, they have not kept up with changes in the industry, science, or policy. Moreover, some regulations—such as those implementing the five-year program—simply restate the statutory text, providing no additional or useful guidance to the agency. As part of updating OCSLA, lawmakers could direct the agency to promulgate new, updated regulations that could offer more utility to the agency.

143. See, e.g., BOEM, *2017-2022 Proposed Final Program Frequently Asked Questions—General* (“The Department of the Interior cannot offer an area for lease or add an additional lease sale within an area without it being included in an approved Five-Year Program. However, the geographic scope of a lease sale area can be narrowed and a lease sale can be cancelled during the implementation of a Five-Year Program.”), <https://www.boem.gov/2017-2022-Proposed-Final-Program-FAQs/> (last visited Mar. 22, 2019).

144. JUAN CARLOS BOUÉ & GERARDO LUYANDO, OXFORD INSTITUTE FOR ENERGY STUDIES, U.S. GULF OFFSHORE OIL: PETROLEUM LEASING AND TAXATION AND THEIR IMPACT ON INDUSTRY STRUCTURE, COMPETITION, PRODUCTION, AND FISCAL REVENUES 39 (2002) (citations omitted).

145. See, e.g., TYLER PRIEST, *EXTRACTION NOT CREATION: THE HISTORY OF OFFSHORE PETROLEUM IN THE GULF OF MEXICO* 251-52 (2007), <https://typriest.files.wordpress.com/2012/05/extraction-not-creation.pdf>.

146. See LeVine et al., *supra* note 21, at 1316-17. See also NATIONAL COMMISSION, *supra* note 3, at 65.

147. BOUÉ & LUYANDO, *supra* note 144, at 44, 47-48.

148. *Id.* at 68-79 (discussing areawide leasing).

149. See PRIEST, *supra* note 145, at 253.

150. BOUÉ & LUYANDO, *supra* note 144, at 48.

151. See David S. Hilzenrath & Nicholas Pacifico, *Drilling Down: Big Oil’s Bidding*, PROJECT ON GOV’T OVERSIGHT, Feb. 22, 2018 (noting the Trump Administration acknowledged if lease sales are limited to selected tracts, the government may sell fewer leases, but it would “allow more focused environmental analyses”), <https://www.pogo.org/investigation/2018/02/drilling-down-big-oils-bidding/>. See also NATIONAL COMMISSION, *supra* note 3, at 262 (“In less well-explored areas, Interior should reduce the size of lease sales so their geographic scope allows for a meaningful analysis of potential environmental impacts and identification of areas of ecological significance.”).

152. See, e.g., BOEM, *supra* note 7, at 5-13 (noting four planning areas included in the DPP were omitted from a chart because they “contain negligible hydrocarbon resources” and showing few resources in most of the areas).

153. BOEM, *2017-2022 OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROPOSED FINAL PROGRAM* 10-17 (2016), <https://www.boem.gov/2017-2022-OCS-Oil-and-Gas-Leasing-PFP/>.

154. See generally LeVine et al., *supra* note 73; Hartsig et al., *supra* note 73.

## C. Operations, Preparedness, Response, and Remediation/Restoration

### I. Spill Response Standards

The capacity to recover spilled oil from ocean waters is limited, even under the best conditions. As noted above, experts estimate the mechanical recovery methods used during massive response to the *Deepwater Horizon* disaster recovered only about 3% of the oil discharged from the Macondo well.<sup>155</sup> The National Commission found that “[t]echnology available for cleaning up oil spills has improved only incrementally since 1990,” that “[f]ederal research and development programs in this area are underfunded,” and that “major oil companies have committed minimal resources to in-house research and development related to spill response technology.”<sup>156</sup>

OCS operators must prepare oil spill response documents containing “a plan for responding, to the maximum extent practicable, to a worst case discharge” and identifying and ensuring personnel and equipment “necessary to remove to the maximum extent practicable a worst case discharge” and “to mitigate or prevent a substantial threat of such a discharge.”<sup>157</sup> These plans must comport with a series of standards set forth in the CWA.<sup>158</sup> To spur better on-water cleanup results and more investment in research and development for response technologies, Congress could enact stringent oil spill response standards to replace or strengthen spill response plan requirements contained in §311(j)(5) of the CWA.

Lawmakers could update these standards to require operators to show their ability to meet performance standards in the field before they are permitted to conduct drilling operations. These performance standards could require operators to demonstrate the availability of adequate equipment, trained personnel, and resources to respond effectively to a worst-case oil spill. Operators could be required to prove their ability to deploy spill response equipment in real-world conditions and to show that their equipment will meet a specific performance target. Congress could provide that these spill response standards be enforced via independent third-party review. Some of these changes were included in the CLEAR Act that passed the House in 2010.<sup>159</sup>

Congress could also require management agencies to consider the “response gap,” the time during which spill

response is altogether impossible due to poor weather or other conditions.<sup>160</sup> A response gap assessment analyzes historic patterns of weather data and sea states and compares them to the operating limits of spill response equipment to determine how often spill response is likely to be impaired or impossible. Congress could require a response gap analysis before authorization of any on-water operations and could establish response gap thresholds.

### 2. Clarify DOI’s Authority to Disapprove Inadequate Spill Response Plans

In a 2015 decision upholding BSEE’s approval of Shell’s Arctic Ocean spill response plan, the U.S. Court of Appeals for the Ninth Circuit found that the agency’s determination that a plan does or does not meet statutory requirements is purely ministerial in nature and that BSEE lacks discretion to examine the proposed plan or alternatives.<sup>161</sup> The court determined that BSEE could not deny approval of an oil company’s spill plan so long as the company provided the documents and information required by statute.<sup>162</sup> BSEE was neither required nor allowed to consider alternative methods of response that might be more effective.<sup>163</sup> The court concluded “that BSEE ‘must approve’ any conforming plan, and thus has no discretion over the adequacy of the plans.”<sup>164</sup>

Congress could amend the law to provide BSEE with authority to consider the efficacy of proposed spill response plans, to consider alternative response plans, and to deny approval of proposed plans when more effective alternatives are available. Doing so would help ensure that operators treat spill planning as more than a box-checking exercise, which could help spur more effective, innovative spill response plans. To increase transparency and accountability, lawmakers could also provide for public review and comment on all proposed OCS spill response plans.

### 3. Review of Exploration Plans, Spill Response Plans, and NRDA

One of the major problems made evident by the *Deepwater Horizon* disaster was the lack of scrutiny afforded various

155. NATIONAL COMMISSION, *supra* note 3, at 168.

156. *Id.* at 269.

157. 33 U.S.C. §1321(j)(5)(A), (B), (D).

158. *Id.* §1321(j)(5)(C)(iii).

159. CLEAR Act, H.R. 3534, 111th Cong. §208(b) (2010) (requiring applicant for OCS exploration plan to demonstrate “the capability and technology to respond immediately and effectively to a worst-case oil spill in real-world conditions in the area of the proposed activity”); *id.* §212 (requiring chief executive officer of oil company to attest in writing that the company “has the capability and technology to respond immediately and effectively to a worst-case oil spill in real-world conditions in the area of the proposed activity”).

160. See generally NUKA RESEARCH AND PLANNING GROUP, LLC, ESTIMATING AN OIL SPILL RESPONSE GAP FOR THE U.S. ARCTIC OCEAN (REVISED) (2016) (providing analysis of how often specific oil spill response tactics would or would not be available under certain environmental conditions, including wind, sea state, temperature, ice cover, and visibility), <https://nukaresearch.com/download/projects/estimating-an-oil-spill-response-gap-for-the-us-arctic-ocean-revised.pdf>.

161. *Alaska Wilderness League v. Jewell*, 788 F.3d 1212, 1226, 45 ELR 20112 (9th Cir. 2015), *petition for rehearing and rehearing en banc denied*, 811 F.3d 1111 (9th Cir. 2015) (holding that BSEE “lacked discretion to deny approval once it determined that the [oil spill response plan] satisfied the statutory requirements”).

162. *Id.* at 1225-26.

163. *Id.*

164. *Alaska Wilderness League v. Jewell*, 811 F.3d 1111, 1112 (9th Cir. 2015) (Gould, Fletcher & Callahan, JJ, dissenting from en banc order denying rehearing and rehearing en banc and characterizing the effect of the majority’s decision).

plans related to drilling, response, and remediation. In one infamous example, BP's spill response plan for the Gulf of Mexico listed walrus as a sensitive species.<sup>165</sup> There are, of course, no walrus in the Gulf of Mexico. That error—along with others—demonstrated the lack of detailed review for those plans. Amendments to OCSLA to extend time lines and allow for public and interagency review of drilling, response, and other plans would help prevent problems like this in the future.

Review of exploration drilling plans is a useful example. Exploration plans provide information about the well or wells an operator intends to drill; they are subject to a two-step review process at DOI.<sup>166</sup> First, the agency reviews the plan for completeness and, once satisfied that the requisite information is included, deems the plan “submitted.”<sup>167</sup> Once DOI deems the plan submitted, OCSLA requires that the agency approve or reject it within 30 days.<sup>168</sup>

This 30-day limit garnered substantial attention in the wake of the *Deepwater Horizon* disaster. President Obama identified it specifically as a problem that Congress needed to fix.<sup>169</sup> The National Commission also called on Congress to “amend the Outer Continental Shelf Lands Act to extend the 30-day deadline for approving exploration plans to 60 days.”<sup>170</sup> The CLEAR Act contained a provision that would have extended the deadline.<sup>171</sup>

In addition to unnecessarily limiting the review of plans, the 30-day deadline has been interpreted to mean that environmental review must take place within that 30 days. DOI will not start NEPA review until after the plan has been deemed submitted, which means that it cannot prepare a full EIS. As a result, “extensive environmental review at this stage may be constrained or rely heavily upon previously prepared NEPA documents.”<sup>172</sup>

To address this problem, Congress should remove the 30-day limit. If a longer limit remains,<sup>173</sup> Congress should include specific direction to the agency that an exploration

plan may not be deemed “submitted” until all reviews—including the possibility of a full EIS—are complete.<sup>174</sup>

Congress can also ensure that exploration plans and spill response plans are subject to public and interagency review. Currently, there is no requirement for public or interagency review of either type of plan, and the lack of a full NEPA process at the exploration stage means that the public and other agencies do not have that avenue for review. This problem is particularly significant for spill response plans, which may never be subject to a public process.

The National Commission identified lack of review of spill response plans as a contributing factor in the *Deepwater Horizon* disaster, and called for a “new process for reviewing spill response plans.”<sup>175</sup> It went on to recommend that:

oil spill response plans, including source-control measures, should be subject to interagency review and approval by the Coast Guard, EPA, and NOAA [the National Oceanic and Atmospheric Administration]. Other parts of the federal government, such as [the U.S.] Department of Energy national laboratories that possess relevant scientific expertise, could be consulted. This would help remedy the past failure to integrate multiple area, regional, and industry response plans, by involving the agencies with primary responsibility for government spill response planning in oversight of industry planning. Plans should also be made available for a public comment period prior to final approval and response plans should be made available to the public following their approval.<sup>176</sup>

OCSLA does not preclude this type of comment period, and it could, therefore, be accomplished through changes in the implementing regulations.<sup>177</sup> Given the agency's lack of attention to this issue, however, congressional action is warranted.

A similar issue is at play in the NRDA process established by OPA 90. The NRDA process is the way in which parties responsible for spills accomplish removal and remediation. One of the steps in the process is an assessment of the natural resource damages, which include “(A) the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of, the damaged natural resources; (B) the

165. See, e.g., Holbrook Mohr et al., *BP's Gulf Oil Spill Response Plan Lists the Walrus as a Local Species. Louisiana Gov. Bobby Jindal Is Furious*, CHRISTIAN SCI. MONITOR, June 9, 2010, <https://www.csmonitor.com/From-the-news-wires/2010/0609/BP-s-gulf-oil-spill-response-plan-lists-the-walrus-as-a-local-species.-Louisiana-Gov.-Bobby-Jindal-is-furious>. Plans prepared by ExxonMobil, Chevron, and other companies for response in the Gulf included a similar statement. See, e.g., Frank James, *Oil Execs Grilled on Copycat Emergency Plans*, NAT'L PUB. RADIO, June 15, 2010, <https://www.npr.org/sections/thetwo-way/2010/06/15/127863551/oil-execs-grilled-for-identical-emergency-plans-walruses-and-all>.

166. See Hartsig, *supra* note 31, at 276-77 (detailing the requirements for an exploration plan and the steps of review).

167. 30 C.F.R. §250.231.

168. 43 U.S.C. §1340(c)(1); see also 30 C.F.R. §250.233.

169. Louis Jacobson, *Obama Blames 30-Day Legal Limit for Role in Oil Spill*, POLITIFACT, June 1, 2010, <http://www.politifact.com/truth-o-meter/statements/2010/jun/01/barack-obama/obama-blames-30-day-limit-law-role-oil-spill/>.

170. NATIONAL COMMISSION, *supra* note 3, at 262.

171. CLEAR Act, H.R. 3534, 111th Cong. §208 (2010).

172. VANN, *supra* note 142, at 13.

173. The National Commission, for example, suggested that the deadline be extended to 60 days. NATIONAL COMMISSION, *supra* note 3, at 262.

174. *Id.* (stating that the agency should not consider exploration plans “officially ‘submitted’ until all of the required content, necessary environmental reviews, and other analyses are complete and adequate to provide a sound basis for decision-making”).

175. *Id.* at 266-67.

176. *Id.* Other commentators have noted:

There is heightened, broad public interest in oil spill response plans by academics, local governments, state governments, other federal agencies, and nongovernmental organizations in the Arctic. The public should have a voice in what kind of oil and gas development is appropriate, where it should take place, and what safeguards are needed.

PEW CHARITABLE TRUSTS, ARCTIC STANDARDS: RECOMMENDATIONS ON OIL SPILL PREVENTION, RESPONSE, AND SAFETY IN THE U.S. ARCTIC OCEAN 43 (2013), available at <https://www.pewtrusts.org/-/media/assets/2013/09/23/arcticstandardsfinal.pdf>.

177. See PEW CHARITABLE TRUSTS, *supra* note 176, at 43 (recommending that DOI codify in regulation a 60-day public and joint agency review for oil spill response plans).



diminution in value of those natural resources pending restoration; plus (C) the reasonable cost of assessing those damages.<sup>178</sup> This assessment takes place in multiple stages: preliminary assessment; restoration planning, which is divided into “injury assessment” and “restoration selection”; and restoration implementation, in which the restoration options are carried out.<sup>179</sup>

OPA 90 requires public participation as restoration plans are developed. The statute does not, however, provide for public involvement in the injury assessment stage. Public review would help increase confidence that the government and responsible party are negotiating in good faith and prioritizing a thorough restoration effort. As we have argued elsewhere, under the current process the responsible party has a disincentive to undertake rigorous studies because if it finds less harm, it will have to pay less money toward restoration.<sup>180</sup> Similarly, the government has an incentive to agree with the responsible party in order to prevent a court fight.<sup>181</sup> Public review would help mitigate these problems.

#### 4. Codify Regulatory Updates and Mandate Full Review of Existing Regulations

After the *Deepwater Horizon* disaster, DOI promulgated a variety of regulations designed to increase safety, improve the efficacy of spill response and containment, and address specialized issues related to exploratory drilling in Arctic waters.<sup>182</sup> These steps were important, but this progress can be—and, in fact, has been—eroded by later administrations. Congress could prevent this by codifying these regulatory changes.

The National Commission recognized that regulation of the oil and gas industry had not kept up with changes in that industry, and recommended adoption of a more sophisticated approach that requires holistic risk assessment, development of a coordinated risk management plan, and integration of subcontractors “in a safety management system.”<sup>183</sup> It also recommended that DOI require operators to develop more detailed plans for well source control and containment.<sup>184</sup> In addition, the National Commission recognized the need to take a hard look at spill response and containment in the Arctic,<sup>185</sup> noting that “[s]uccessful oil-spill response methods from the Gulf of Mexico, or anywhere else, cannot simply be transferred to the Arctic.”<sup>186</sup>

By the time the National Commission published its recommendations, DOI had already issued a new rule on safety and environmental management systems (SEMS).<sup>187</sup> In the years that followed, DOI published the Drilling Safety Rule in 2012,<sup>188</sup> a second SEMS Rule in 2013,<sup>189</sup> and a rule intended to improve spill prevention and oversight known as the “well control rule.”<sup>190</sup> In 2016, BSEE and BOEM finalized a new safety and spill prevention rule applicable to certain exploration activities in the U.S. Arctic Ocean.<sup>191</sup> The new rule codified requirements like the ability to drill a same-season relief well, development of an integrated operations plan, and seasonal restrictions to account for ice cover. BOEM also used its regulatory authority to increase liability limits for offshore facilities to keep pace with inflation for the first time since such changes were mandated in OPA 90.<sup>192</sup>

Generally, these rulemakings were designed to improve operations, safety, and preparedness in response to lessons learned from the *Deepwater Horizon* tragedy and Shell’s problems in the Arctic. They were laudable, but remain subject to modification or reversal by future administrations. In fact, the Trump Administration has already taken steps to roll back portions of the 2016 Well Control Rule<sup>193</sup> and has threatened to roll back Arctic-specific drilling rules.<sup>194</sup> To prevent an erosion of safety and spill response and containment capacity on the OCS, Congress could codify the regulatory changes that were instituted in the wake of the *Deepwater Horizon*.

In addition, Congress should direct a fundamental revision to the suite of rules governing exploration. Like regulations governing planning and leasing discussed above,<sup>195</sup> the regulations implementing the exploration phase of

178. 33 U.S.C. §2706(d)(1).

179. NOAA National Ocean Service, *What Is a Natural Resource Damage Assessment?*, <https://oceanservice.noaa.gov/facts/nrda.html> (last updated June 25, 2018).

180. Michael LeVine & Andrew Hartsig, *Management and Oversight of Offshore Oil and Gas—The Need for Change*, 42 TRENDS 1, 2 (2010).

181. *Id.*

182. See *supra* Section II.C.

183. NATIONAL COMMISSION, *supra* note 3, at 270, 252.

184. *Id.* at 273.

185. *Id.* at 303-04.

186. *Id.* at 303.

187. Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Safety and Environmental Management Systems; Final Rule (SEMS I), 75 Fed. Reg. 63610 (Oct. 15, 2010).

188. Oil and Gas and Sulphur Operations on the Outer Continental Shelf—Increased Safety Measures for Energy Development on the Outer Continental Shelf, Final Rule, 77 Fed. Reg. 50856 (Aug. 22, 2012).

189. Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Revisions to Safety and Environmental Management Systems (SEMS II), 78 Fed. Reg. 20423 (Apr. 5, 2013).

190. See Oil and Gas and Sulfur Operations in the Outer Continental Shelf—Blowout Preventer Systems and Well Control, Final Rule, 81 Fed. Reg. 25888 (Apr. 29, 2016).

191. See Oil and Gas and Sulfur Operations on the Outer Continental Shelf—Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf, Final Rule, 81 Fed. Reg. 46478 (July 15, 2016).

192. See Consumer Price Index Adjustments of the Oil Pollution Act of 1990 Limit of Liability for Offshore Facilities, Final Rule, 79 Fed. Reg. 73832 (Dec. 12, 2014).

193. Oil and Gas and Sulfur Operations in the Outer Continental Shelf—Blowout Preventer Systems and Well Control Revisions, 83 Fed. Reg. 22128 (May 11, 2018).

194. Office of Management and Budget, *Revisions to the Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf* (proposed rule stage) (proposing to revise provisions of the 2016 Arctic drilling rule), <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201710&RIN=1014-AA40> (last visited Mar. 22, 2019); see also Implementing an America-First Offshore Energy Strategy, Exec. Order No. 13795 of April 28, 2017, 82 Fed. Reg. 20815, 20817 (May 3, 2017) (directing the secretary of the interior to review the 2016 Arctic drilling rule and, if appropriate, initiate a rulemaking to suspend, revise, or rescind the 2016 rule).

195. See *supra* Section III.B.4.

OCSLA are outdated and in need of revision.<sup>196</sup> To address these issues, Congress could direct DOI to promulgate new, updated regulations.

#### D. Financial Responsibility and Funding

Several of the reforms proposed earlier in this Article touch on fiscal issues, including, for example, moving away from areawide leasing in order to increase revenue from sales. The subsections that follow suggest specific changes that would increase funding for preparedness, response, and remediation. Many of these updates have been proposed in earlier legislation, by the National Commission, or in other venues.

##### I. The OSLTF

Among other advances, OPA 90 authorized use of the OSLTF.<sup>197</sup> The fund is intended as a source of money to pay for activities related to assessment, removal, and remediation of marine oil spills.<sup>198</sup> There is no limit on the amount of revenue derived from oil spills that can be deposited into the OSLTF. However, there is a limitation on expenditures from the fund: the maximum amount that can be paid from the fund for removal activities for any single incident is limited to \$1 billion, and expenditures for NRDA and claims in connection to a single incident are limited to \$500 million.<sup>199</sup>

The fund received most of its revenue from a five-cent per barrel tax, “collected from the oil industry on petroleum produced in, or imported to, the U.S.”<sup>200</sup> Congress eventually increased the tax to nine cents per barrel, but that increase came with a sunset provision: the per-barrel tax expired on December 31, 2018.<sup>201</sup> To ensure continued funding of the OSLTF, Congress should eliminate the sunset provision and restart the tax.

As it does so, Congress also could expand the allowable uses of the fund to explicitly include scientific research and monitoring conducted by NOAA. Understanding the marine environment, including disproportionately sensitive or important areas, will help prioritize response and assess damages. Garnering that understanding is consistent with the intentions of the statute and with good governance. This goal could be facilitated by amending OPA 90 to include authorization for “scientific research and monitoring dedicated to

better understanding the vulnerability of marine ecosystems to, and the effects of, oil leasing, exploration, and development and ways to implement ecosystem-based management.”<sup>202</sup> In the wake of the *Deepwater Horizon*, Sen. Maria Cantwell (D-Wash.) introduced legislation that would have directed funds to NOAA.<sup>203</sup>

## 2. Financial Responsibility

OPA 90 made clear that companies responsible for spilling oil into marine waters were also responsible for removing that oil and remediating the damage caused. The law established a system for identifying those costs and damages. The *Deepwater Horizon* disaster was the first big test of that system, and it brought to light deficiencies that Congress should address.

A responsible party is strictly liable for the “removal costs and damages” resulting from a spill.<sup>204</sup> “Removal costs” are those incurred in the “containment and removal of oil or a hazardous substance from water and shorelines or the taking of other actions as may be necessary to minimize or mitigate damage.”<sup>205</sup> For offshore facilities other than deepwater ports, there is no limit on a responsible party’s liability for removal costs, but there is a cap on liability for damages.<sup>206</sup>

The law defines “damages” expansively, to include effects on “natural resources,” “real or personal property,” “subsistence use,” “revenues,” “profits and earning capacity,” and “public services.”<sup>207</sup> For an operator of an offshore facility, the statute caps liability for all of these damages at \$75 million per incident.<sup>208</sup> The limit does not apply only “if the incident was proximately caused by a responsible party’s gross negligence, willful misconduct, or violation of applicable Federal safety, construction, or operation regulation.”<sup>209</sup>

196. See Hartsig et al., *supra* note 73, at 26-27. See *supra* Section III.C.3. (discussing problems with 30-day deadline for approval of exploration plans).

197. 33 U.S.C. §2712 (“Uses of the Fund,” describing presidential authority over the OSLTF, state access to the fund, etc.). The fund was created in 1986. See 26 U.S.C. §9509 (establishing the OSLTF).

198. 33 U.S.C. §2712; see also U.S. COAST GUARD NATIONAL POLLUTION FUNDS CENTER, NPFC MISSION OVERVIEW 9 (describing uses of the fund), [https://www.uscg.mil/Portals/0/NPFC/docs/PDFs/Reports/Mission\\_Overview\\_2008.pdf](https://www.uscg.mil/Portals/0/NPFC/docs/PDFs/Reports/Mission_Overview_2008.pdf).

199. 26 U.S.C. §9509(c)(2)(A).

200. U.S. COAST GUARD NATIONAL POLLUTION FUNDS CENTER, *supra* note 198.

201. See 26 U.S.C. §4611(f)(2) (providing that the per-barrel tax “shall not apply after December 31, 2018”).

202. See *Hearing on Amendments to the Outer Continental Shelf Lands Act Before the Senate Committee on Energy and Natural Resources*, 111th Cong. (2010) (testimony of Marilyn Heiman, Director, Offshore Energy Reform Project, Pew Environment Group), [https://www.energy.senate.gov/public/index.cfm/files/serve?File\\_id=6A56B6BF-B868-9219-4B34-FCDC882B5EB4](https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=6A56B6BF-B868-9219-4B34-FCDC882B5EB4).

203. See S. 684, 111th Cong. §203 (2009), <https://www.govtrack.us/congress/bills/111/s684/text>.

204. 33 U.S.C. §2702(a), (b). However, responsible parties are not liable for the costs of removal or damages if violations were caused solely by an act of God, act of war, or act or omission of a third party. *Id.* §2703(a).

205. *Id.* §2701(30), (31).

206. *Id.* §2704(a)(3); *id.* §2704(c)(3):

Notwithstanding the limitations established under subsection (a) and the defenses of section 2703 of this title, all removal costs incurred by the United States Government or any State or local official or agency in connection with a discharge or substantial threat of a discharge of oil from any Outer Continental Shelf facility or a vessel carrying oil as cargo from such a facility shall be borne by the owner or operator of such facility or vessel.

See also NATIONAL COMMISSION, *supra* note 3, at 245 (noting that liability for removal costs is unlimited, “but there is a cap on liability for damages”).

207. 33 U.S.C. §2702(b)(2)(A)-(F).

208. *Id.* §2704(a)(3).

209. NATIONAL COMMISSION ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, STAFF WORKING PAPER NO. 10, LIABILITY AND COMPENSATION REQUIREMENTS UNDER THE OIL POLLUTION ACT 3 [hereinafter NATIONAL COMMISSION WORKING PAPER], <https://cybercemetery.unt.edu/archive/oilspill/20130215212321/http://www.oilspillcommission.gov/>

In addition, operators of offshore facilities are required to demonstrate to the government that they have a certain level of financial capacity to meet “removal costs and damages” for claims made pursuant to OPA 90.<sup>210</sup> DOI has discretion in determining the amount of financial capacity that must be demonstrated, but the statute limits it to \$150 million; in other words, the most financial capacity a company may be required to demonstrate is \$150 million.<sup>211</sup> In the event that a company cannot pay for removal or damages, the OSLTF is available for uncompensated costs. The law, however, limits the amount that may be withdrawn from the fund to \$1 billion per incident.<sup>212</sup>

The costs of removal and damages resulting from the *Deepwater Horizon* disaster far exceeded all of the limits imposed by the statutes. Recent estimates have put the cost at \$65 billion.<sup>213</sup> As that figure makes clear, the current system of financial liability and responsibility are inadequate. Three key changes to the law would help address the problems identified: removing the \$75 million limit on liability for damages; significantly increasing the amount of financial responsibility a company must show; and removing the limit on one-time payouts from the OSLTF. As explained below, it is necessary to consider changes like these together in order to avoid unintended consequences.

- *Remove the liability cap.* The National Commission recommended eliminating or raising the liability cap; its working papers noted that the cap “provides little incentive for improving safety practices to decrease the likelihood of major spills, and it limits the ability of those of who suffer damages to receive full compensation.”<sup>214</sup> The liability cap issue continues to be part of the debate about offshore drilling, and bills have been introduced as recently as 2018 to remove the cap.<sup>215</sup>

It is clear a \$75 million cap is inadequate and should be eliminated or, at a minimum, raised substantially. Care is required because eliminating the cap all at once has the potential to adversely affect certain small or independent operators.<sup>216</sup>

- *Increase the demonstrated financial responsibility.* In addition to raising the liability cap, “[f]inancial

responsibility limits should also be increased, because if an oil company does not have adequate resources to pay for a spill, the application of increased liability has little effect: Should a company go bankrupt before fully compensating for a spill, its liability is effectively capped.”<sup>217</sup> Indeed,

the fact that BP is able to provide full monetary compensation for damages that it causes is no more than a fortuity, not a product of regulatory design. If a company with less financial means had caused the spill, the company would likely have declared bankruptcy long before paying anything close to the damages caused.<sup>218</sup>

In other words, it “is critical that compensation to victims be paid in full,” and that rules are in place to ensure that is possible.<sup>219</sup>

In the aftermath of the *Deepwater Horizon* disaster, BP worked with the federal government to create a \$20 billion fund intended to provide compensation to victims.<sup>220</sup> The fund was an invention intended, at least in part, to provide certainty to victims, the federal government, and the company itself—which was at very real risk of bankruptcy.<sup>221</sup> Creation of the fund was necessary, in part, because the law failed to set forth adequate requirements to demonstrate financial capacity or surety.

Companies should be required to demonstrate much more significant financial capacity. How much and how to demonstrate that capacity are significantly more difficult questions. Many companies currently self-insure,<sup>222</sup> and it may not be possible to acquire sufficient insurance at all. In 2010, it was estimated that “global insurance capacity available to meet the Oil Spill Financial Responsibility requirements of the 1990 Oil Pollution Act is approximately \$1.5 billion.”<sup>223</sup> It may also be possible to show the required capacity through a surety or other bond. Aside from the specific mechanism, it is clear that the current requirement to demonstrate a maximum of \$150 million of capacity to respond to a spill is at least two orders of magnitude smaller than the potential liability and should be changed.

217. *Id.* at 284.

218. NATIONAL COMMISSION WORKING PAPER, *supra* note 209, at 1.

219. NATIONAL COMMISSION, *supra* note 3, at 283.

220. See Jonathan Weisman & Guy Chazan, *BP Agrees to \$20 Billion Fund*, WALL ST. J., June 17, 2010 (describing how BP agreed to put \$20 billion into a fund to compensate victims of the Gulf oil spill), <https://www.wsj.com/articles/SB10001424052748704198004575310571698602094>.

221. Nin-Hai Tseng, *BP After the Spill: Bankrupt, Bought, or Business as Usual?*, FORTUNE, June 7, 2010 (describing a post-*Deepwater Horizon* BP bankruptcy as a “plausible” scenario), [http://archive.fortune.com/2010/06/04/news/companies/gulf\\_coast\\_BP\\_bankruptcy\\_odds.fortune/index.htm](http://archive.fortune.com/2010/06/04/news/companies/gulf_coast_BP_bankruptcy_odds.fortune/index.htm).

222. See, e.g., LOUISE ROUSE ET AL., GREENPEACE UK ET AL., FROZEN FUTURE: SHELL’S ONGOING GAMBLE IN THE US ARCTIC 2 (2014) (noting that Shell self-insured for operations in the U.S. Arctic Ocean).

223. BOOZ ALLEN HAMILTON, THE OFFSHORE OIL AND GAS INDUSTRY REPORT IN INSURANCE—PART ONE 5 (2010), [https://cybercemetery.unt.edu/archive/oilspill/20130216041039/http://www.oilspillcommission.gov/sites/default/files/documents/Insurance\\_Report\\_Part%20One\\_Oct\\_5\\_4%20PM\\_r1.pdf](https://cybercemetery.unt.edu/archive/oilspill/20130216041039/http://www.oilspillcommission.gov/sites/default/files/documents/Insurance_Report_Part%20One_Oct_5_4%20PM_r1.pdf).

sites/default/files/documents/Liability%20and%20Compensation%20Under%20the%20Oil%20Pollution%20Act.pdf. See also 33 U.S.C. §2704(c)(1).

210. 33 U.S.C. §2716(c), (f); see also 30 C.F.R. pt. 253 (establishing regulations for oil spill financial responsibility for offshore facilities).

211. 33 U.S.C. §2716(c)(1)(C). “Firms may demonstrate financial responsibility in various ways, including surety bonds, guarantees, letters of credit, and self-insurance; the most common method is through an insurance certificate.” NATIONAL COMMISSION WORKING PAPER, *supra* note 209, at 2.

212. 26 U.S.C. §9509(c)(2).

213. See Bousso, *supra* note 43. Some experts estimate the cost of the spill was much higher. See, e.g., Lee et al., *supra* note 43, at 78-79 (concluding ultimate cost to BP was nearly \$145 billion).

214. NATIONAL COMMISSION, *supra* note 3, at 245-46; NATIONAL COMMISSION WORKING PAPER, *supra* note 209, at 1.

215. See Big Oil Bailout Prevention Unlimited Liability Act of 2018, S. 3757, 115th Cong. (2018).

216. NATIONAL COMMISSION, *supra* note 3, at 246.

- *Eliminate the limit on per-incident payouts from the OSLTF.* The OSLTF is currently the backstop for compensation of damages for which companies cannot pay. It is good policy to maintain that backstop even if the liability cap and financial responsibility issues described above are addressed. The backstop provides insurance against unforeseen situations. In light of the magnitude of damages from the *Deepwater Horizon*, the current limit of \$1 billion per incident is “clearly inadequate” and “raising the limit would help ensure that victims have access to compensation without the need to seek further specific funding from Congress, or otherwise burdening the taxpayer.”<sup>224</sup> Maintaining sufficient funds in the OSLTF will require resurrecting the per-barrel tax that has lapsed.<sup>225</sup>
- *Interrelationship of these issues.* The National Commission noted:

[A]ttempts to raise the cap and financial responsibility requirements to significantly higher levels have been met with the argument that these changes will cause insurance carriers to drop oil pollution coverage, leading to an exodus of small and independent companies from the offshore drilling market. The counter-argument is that oil companies should bear the social costs of their activities, and if those costs are too large or unpredictable to be insurable, then it is appropriate that these companies exit the market.<sup>226</sup>

The National Commission offered several suggestions to address these concerns, including creating mutual insurance pools and phasing in the changes in liability limits.<sup>227</sup> These are issues that Congress must consider when crafting changes to the statute.

### 3. Rent and Royalty Provisions

In addition to revenue from selling leases and fees to fund reviews and inspections, the federal government receives money from companies in the form of rents and royalties. Generally, royalties are payments companies make to the Treasury calculated as a percentage of the volume of oil or natural gas extracted. Rents are payments made during the period of time a company holds a lease and has not produced oil or gas from it. OCSLA specifically allows DOI to charge rent, but the statute does not proscribe the agency’s discretion.<sup>228</sup> DOI generally “commonly uses escalating

rental rates to encourage faster exploration and development of leases, and earlier relinquishment when exploration is unlikely to be undertaken by the current lessee.”<sup>229</sup>

Congress could address two independent issues with regard to rent and royalty payments. First, the payments do not account for the social and environmental externalities associated with offshore drilling activities. Externalities include impacts like air and water pollution and emission of greenhouse gases, which are borne by the public. These costs are significant and—as noted above—quantifiable. Companies could be required to pay for them. Doing so would help ensure the government is receiving fair market value for the resources.

Second, the rent provisions could be formalized to increase the incentive for companies to either explore or relinquish leases. The issue of companies stockpiling leases drew significant attention in Congress after the *Deepwater Horizon* disaster, prompting lawmakers to introduce several “use it or lose it” bills.<sup>230</sup> These bills were never enacted, and companies are still allowed to purchase leases and leave them unexplored for their 10-year terms. In the Arctic, in fact, companies have sought extensions—called “suspensions of operations”—for leases on which they have not explored,<sup>231</sup> and legislation has been introduced to extend the terms of leases in the Arctic.<sup>232</sup>

DOI could take these actions under the existing law. In fact, arguments have been made that the agency should,<sup>233</sup> but there has been no movement to do so. Congressional action is needed.

### 4. Fund Science and Preparedness

As explained above, decisions about our ocean are often made more difficult by lack of basic scientific information. This issue is particularly acute in the Arctic, where rapid changes in the region as a result of climate change and ocean acidification make it all the more important to have baseline information to guide management decisions.<sup>234</sup>

224. NATIONAL COMMISSION, *supra* note 3, at 286. Legislation has been introduced to achieve these goals as well. See Big Oil Bailout Prevention Trust Fund Act of 2018, S. 3756, 115th Cong. (2018).

225. See *supra* Section III.D.1. (discussing per-barrel tax to fund the OSLTF).

226. NATIONAL COMMISSION, *supra* note 3, at 285.

227. *Id.*

228. 43 U.S.C. §1337(b)(6) (stating that leases may “contain such rental and other provisions as the Secretary may prescribe at the time of offering the area for lease”).

229. See JAYNI FOLEY HEIN, INSTITUTE FOR POLICY INTEGRITY, HARMONIZING PRESERVATION AND PRODUCTION: HOW MODERNIZING THE DEPARTMENT OF THE INTERIOR’S FISCAL TERMS FOR OIL, GAS, AND COAL LEASES CAN ENSURE A FAIR RETURN TO THE AMERICAN PUBLIC 11 (2015), available at [https://policyintegrity.org/files/publications/DOI\\_LeasingReport.pdf](https://policyintegrity.org/files/publications/DOI_LeasingReport.pdf).

230. See, e.g., Steve Hargreaves, *Drilling Dilemma: Oil Industry Leases Untapped*, CNN MONEY, June 8, 2011 (noting “members of Congress have proposed shortening the period for which leases are awarded—a so-called ‘use it or lose it’ provision”), [https://money.cnn.com/2011/06/06/news/economy/oil\\_drilling\\_leases/index.htm](https://money.cnn.com/2011/06/06/news/economy/oil_drilling_leases/index.htm); see also *The Big Pander to Big Oil*, N.Y. TIMES, June 19, 2008 (observing that members of the House introduced “use it or lose it” bills designed to require oil companies “to begin exploiting the leases they have before getting any more,” and noting that companion bills were introduced in the Senate), <https://www.nytimes.com/2008/06/19/opinion/19thu1.html>.

231. See 30 C.F.R. §§250.168-.177 (detailing regulatory requirements for suspension of OCS leases).

232. See S. 1278, 114th Cong. §3 (introduced May 11, 2015) (extending existing leases in the U.S. Arctic and amending OCSLA to provide for 20-year lease terms for OCS leases in the Beaufort and Chukchi Seas).

233. HEIN, *supra* note 229, at 18-23; see also Hartsig et al., *supra* note 73, at 25-26.

234. U.S. GEOLOGICAL SURVEY, CIRCULAR NO. 1370, AN EVALUATION OF THE SCIENCE NEEDS TO INFORM DECISIONS ON OUTER CONTINENTAL SHELF

Funding is needed to pay for baseline science so that managers have access to good information before they make decisions about whether, where, and when areas may be made available for leasing. Funding for long-term scientific monitoring and observation programs is necessary to ensure the impacts of OCS activities are evaluated on an ongoing basis. More broadly, funding is necessary to support programs designed to protect, maintain, or restore marine ecosystems. In areas where exploration, development, or production activities are underway, funding is also necessary to pay for safety inspections, spur innovations in spill prevention and response technologies, and hire and train additional government safety inspectors, scientists, engineers, and other OCS professionals.

It may be possible to provide funding to fill some of these needs with minor changes to OPA 90. As explained above, OPA 90 authorizes certain uses of the OSLTF,<sup>235</sup> which has been funded from a per-barrel tax on oil production. Congress could amend OPA 90 to collect and direct funds to be used to support baseline ocean science, safety and compliance, and development of spill prevention and response technologies.<sup>236</sup>

Congress could also take the bolder step of establishing a permanently appropriated, dedicated funding source for ocean, coastal, and Great Lakes conservation and management. Given the actual and potential damage that oil and gas activities can inflict on the marine and coastal ecosystems, a portion of OCS revenues could be directed to ocean protection, maintenance, and restoration. The CLEAR Act, for example, proposed establishment of an Ocean Resources Conservation and Assistance Fund.<sup>237</sup> The fund would have been capitalized annually with 10% of revenues derived from offshore oil and gas energy development.<sup>238</sup> Monies from the fund would have supported grants for “activities that contribute to the conservation, protection, maintenance, and restoration of ocean, coastal, and Great Lakes ecosystems.”<sup>239</sup>

If Congress implements either of these funding programs, it should ensure public access to data and other information generated under the programs, including information gathered in the course of research and planning, as well as information generated after an oil spill.

#### IV. Conclusion and Path Forward

The laws that govern OCS oil and gas activities have not kept pace with a changing oil and gas industry or with changing knowledge and attitudes about the marine environment. Most notably, when lawmakers last made significant changes to OCSLA in 1978, climate change and ocean acidification were not significant issues. It is clear that we need fundamental change in the basic governance of ocean resources and a movement toward renewable sources of energy.

Along the way toward that ultimate goal, changes to the statutory framework for offshore oil and gas activities are also warranted. To that end, Congress should undertake comprehensive reform that addresses the changes outlined above. Given Congress’ failure to implement any legislation in the wake of the *Deepwater Horizon* disaster and the increasing politicization of these issues, we recognize that such legislation is a significant task. Incremental steps could include preventing the rollback of the safety and prevention rules implemented during the Obama Administration, as well as oversight and other hearings focused on safety and prevention, science, and the costs and benefits of moving forward with new leasing and other activities.

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ENERGY DEVELOPMENT IN THE CHUKCHI AND BEAUFORT SEAS, ALASKA 217-21 (Leslie Holland-Bartels & Brenda Pierce eds., 2011) (supporting need for additional Arctic science), available at <https://pubs.usgs.gov/circ/1370/pdf/circ1370.pdf>; see also CLEMENT ET AL., *supra* note 106, at 32 (“Shifts in Arctic climate variables, as well as terrestrial and marine ecosystems, should be monitored through rigorous, interdisciplinary research programs that collect and disseminate the best data and analyses to support environmental, economic, and cultural decision-making.”).

235. 33 U.S.C. §2712(a) (listing uses of fund).

236. See *supra* Section III.D.1.

237. CLEAR Act, H.R. 3534, 111th Cong. §§207, 605 (2010).

238. *Id.* §207.

239. *Id.* §605.

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Michael LeVine <mlevine@oceanconservancy.org>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>

**Cc:** Andrew Hartsig <ahartsig@oceanconservancy.org>, Katherine Tsantiris <ktsantiris@oceanconservancy.org>, Reginald Paros <rparos@oceanconservancy.org>, Amy Trice <atrice@oceanconservancy.org>

**Subject:** Re: [EXTERNAL] FW: Follow up from the forum

**Date:** Mon, 29 Mar 2021 13:04:35 +0000

**Inline-Images:** image003.jpg

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Thank you so much for these resources and for your participation in the forum, Mike.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
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---

**From:** Michael LeVine <mlevine@oceanconservancy.org>

**Sent:** Friday, March 26, 2021 6:42 PM

**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>

**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Andrew Hartsig <ahartsig@oceanconservancy.org>; Katherine Tsantiris <ktsantiris@oceanconservancy.org>; Reginald Paros <rparos@oceanconservancy.org>; Amy Trice <atrice@oceanconservancy.org>

**Subject:** [EXTERNAL] FW: Follow up from the forum

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Hi again Director Lefton,

Just resending the email below with your correct email address.

Thanks, and have a good weekend.

Mike

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Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Ocean Conservancy  
Phone: 907.723.0136

---

**From:** Michael LeVine

**Sent:** Friday, March 26, 2021 2:35 PM

**To:** amanda\_lefton@ios.doi.gov

**Cc:** marissa.knodel@boem.gov; Andrew Hartsig; Katherine Tsantiris; Reginald Paros; Amy Trice

**Subject:** Follow up from the forum

Hi Director Lefton,

Thank you again for your part in hosting the forum yesterday and for the opportunity to participate. We were heartened by the breadth of voices and the serious consideration being given to meaningful change.

As I mentioned in response to your question, Andrew Hartstig and I have co-authored several articles about the need to reform the management of offshore oil and gas. Attached here are the two articles about reform of BOEM's planning, leasing, and exploration regulations and the most recent publication about reforming OCSLA. We will also submit detailed written comments (including additional citations and resources) before the April 15 deadline.

In addition to offshore oil and gas issues, Ocean Conservancy also focuses on encouraging responsible offshore wind development. Amy Trice, our lead on that issue, is copied here.

I've also copied Kathy Tsantiris and Reggie Paros, two of our government relations experts in Washington, DC. Perhaps once the initial work is done on the draft report this summer, they can help us arrange a meeting with you and your staff.

In the meantime, please feel free to reach out at any time about the forum, report, or anything else with which we can be helpful.

Thank you again,

Mike



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**From:** Kendall Dix <kdix@taproot.earth>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, Colette Pichon Battle <cpichonbattle@taproot.earth>, "Parra, Breanna L" <breanna.parra@boem.gov>

**Subject:** [EXTERNAL] Follow up on CCS coversation

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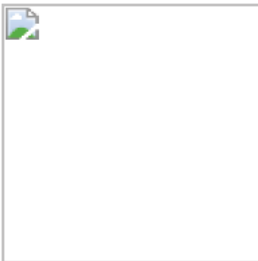
Hi, Marissa and Bre.

I wanted to follow up from our conversation in Washington with a couple things:

1. I've attached our comments on the Gulf of Mexico Wind Energy Areas with evidence that oil and gas infrastructure is inhibiting offshore wind development.
2. I wanted to note some more evidence backing up our skepticism about offshore carbon capture and storage. There is [this recent article](#) about 10 of the 13 flagship CCS projects in the world failing to deliver. I also came across [this report from BOEM](#) that noted the stored carbon dioxide at the Sleipner field in Norway has already begun to migrate into strata above the reservoir zone. To see this movement after just a few decades is concerning when we need to plan for indefinite storage.

Thanks,  
Kendall

--



**Kendall Dix**  
National Policy Director  
Taproot Earth  
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Bureau of Ocean Energy Management (BOEM)  
Jessica Stromberg, Acting Chief, Environment Branch for Renewable Energy  
45600 Woodland Road, VAM OREP  
Sterling, Virginia 20166

September 2, 2022

RE: Comments on Gulf of Mexico Draft Wind Energy Areas

Dear Ms. Stromberg,

Please accept these comments on behalf of Taproot Earth. Taproot Earth (formerly Gulf Coast Center for Law & Policy) is a global climate justice organization with a mission to build collective systems of self governance and restoration to advance a just transition to a sustainable economy. We have long been based in Louisiana and anchor Gulf South for a Green New Deal, a five state plus Puerto Rico, member led formation that includes hundreds of organizations from Texas and Louisiana.

This comment will focus mostly on the conflicts with oil and gas infrastructure that seem to have precluded parts of the Gulf of Mexico at least initially from offshore wind development in federal waters. We are an organization pushing for a just transition from offshore oil extraction to justly sourced renewable energy in the Gulf of Mexico. As the comment period for the 2023-2028 National OCS Oil and Gas Leasing Proposed Program is **still open**, we would like the incompatibility of offshore oil and wind noted for the record.

We support BOEM's establishment of setbacks for certain kinds of oil and gas infrastructure which includes 200 feet for pipelines, 500 feet for platforms, and 500 feet for artificial reefs (sunk platforms). As long as oil and gas production continues in the Gulf of Mexico, the Bureau

of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement must prioritize safety above all else. But it follows, of course, that if there were less oil and gas infrastructure in the federal waters of the Gulf of Mexico, the federal government could permit more offshore wind.

We believe incompatibility of oil and wind should guide BOEM to embrace policies that mitigate the impacts of the currently irreconcilable conflict between oil and gas infrastructure and justly sourced renewable energy, including:

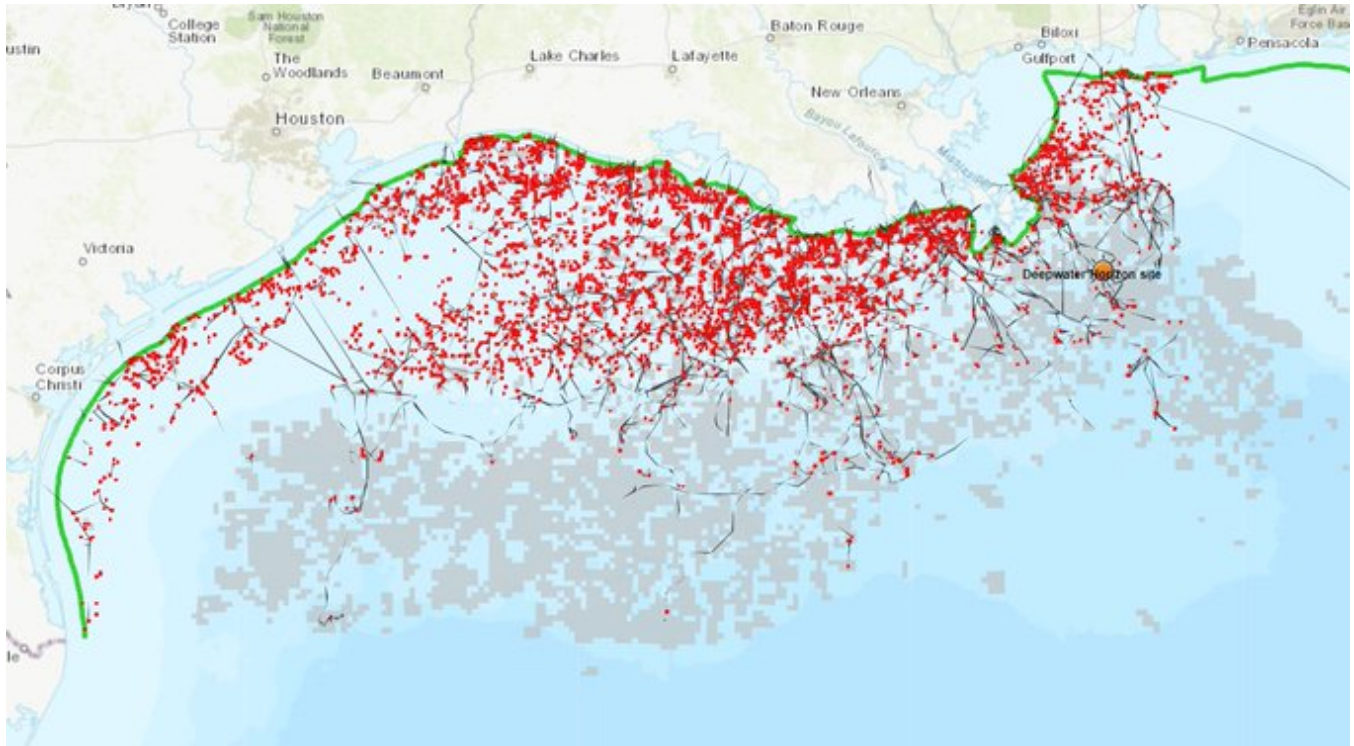
1. Incentivizing expansive Community Benefit Agreements that would include climate/environmental justice communities in the Gulf South that have been excluded from the proposed Wind Energy Areas (WEAs) as beneficiaries.
  2. Using BOEM's existing authority to order the removal of oil and gas infrastructure in the Gulf of Mexico that has been decommissioned in place, as well as remediating the areas impacted by this oil and gas development.
  3. Issuing no new leases beyond what is legally required by Congress for the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Proposed Program.
  4. Establishing a public offshore development company to ensure that the greatest number of people benefit from the profitable development of offshore wind energy.
- I. Oil and gas infrastructure precludes offshore development

Offshore oil and gas development in federal waters—an activity overseen by BOEM precludes offshore wind development in surrounding areas. In a July 20 memo written to Director Amanda Lefton, Gulf of Mexico regional director Michael Celata notes that oil rigs require a 500 ft setback and active oil pipelines require a 200 ft setback. This makes good sense because interactions between turbines and oil rigs/pipelines could cause oil spills or

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Celata, Michael, "Request for Concurrence on Preliminary Wind Energy Areas for the Gulf of Mexico Area Identification Process Pursuant to 30 C.F.R. § 585.211(b)," Memorandum dated July 20, 2022, p. 13, <https://www.boem.gov/sites/default/files/documents//Draft%20Area%20ID%20Memo%20GOM%20508.pdf>.

other dangerous disasters. But with so much oil and gas infrastructure in the Gulf of Mexico, otherwise viable wind energy areas has been and will continue to be significantly limited. This is a map of oil and gas drilling platforms both historical and active, pipelines, and active leases in the Gulf of Mexico:<sup>2</sup>

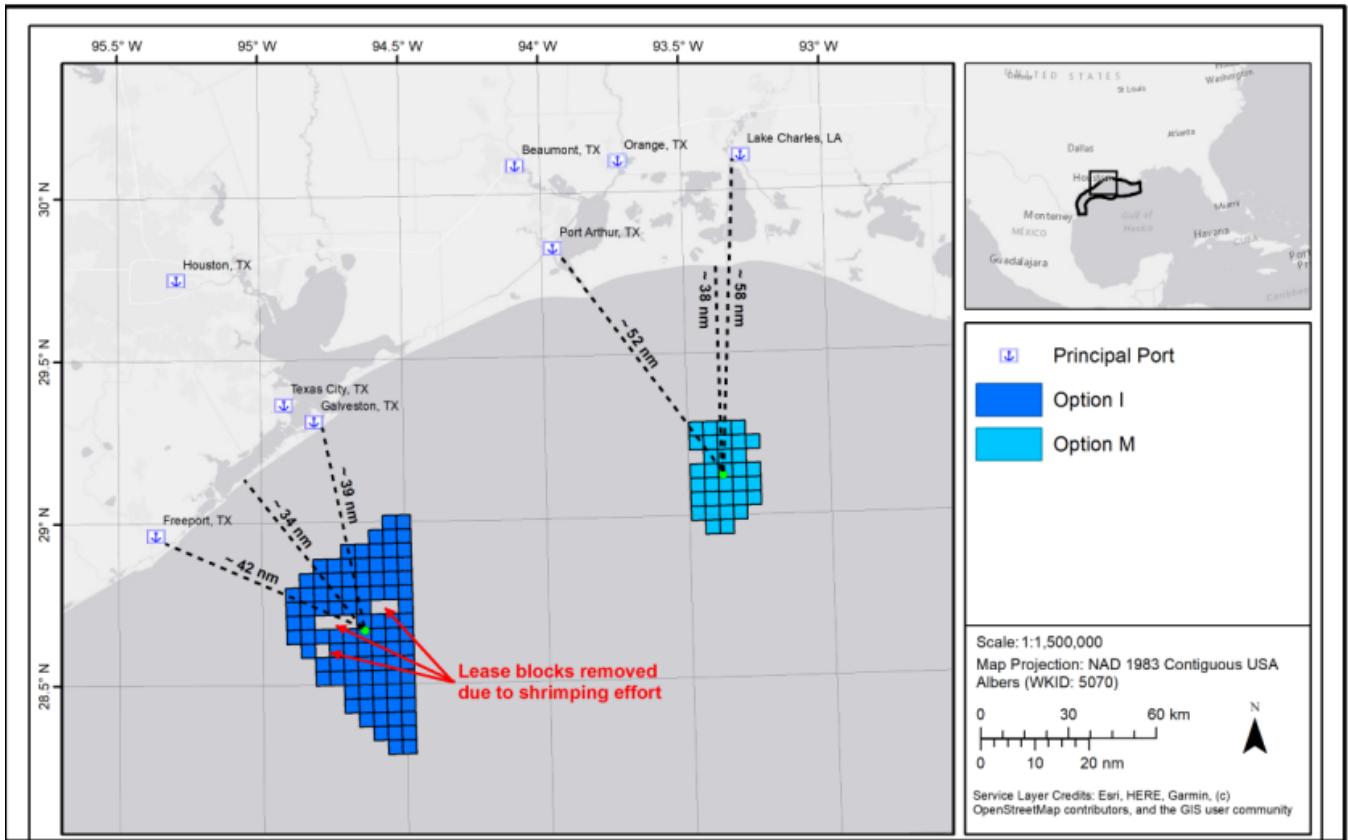


Looking at this map helps us understand why only areas in Texas and far western Louisiana were considered for these WEAs. Southeastern Louisiana has far too much oil and gas infrastructure to be safely developed.

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<sup>2</sup> Fracktracker, Oil and Gas Infrastructure in the Gulf of Mexico  
<https://maps.fracktracker.org/latest/?appid=0b3260e4417d4299b750b6b2447d7f33>.

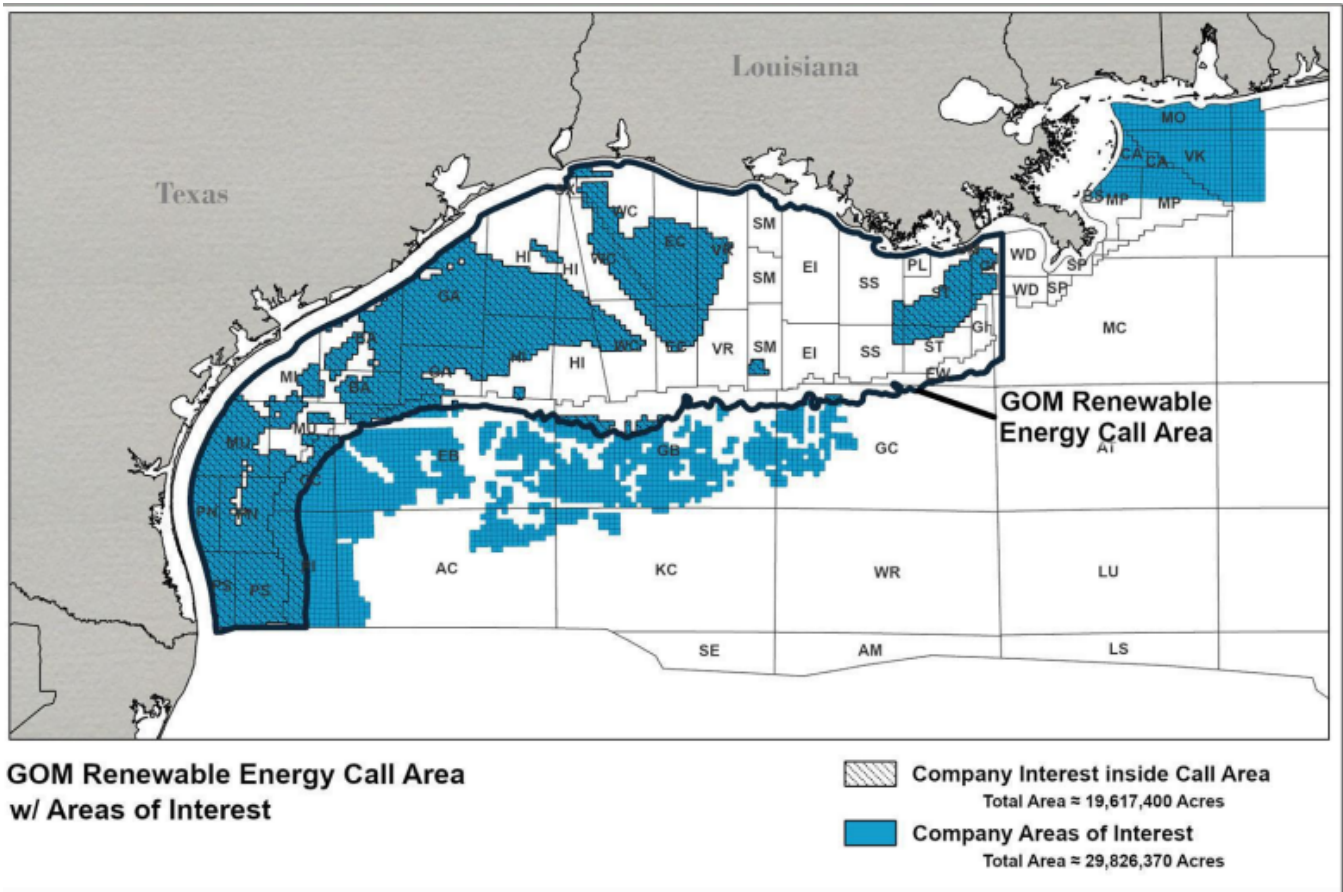
For reference, here are the Wind Energy Areas that BOEM chose:



While the projected wind speeds are higher in the far western part of the Gulf of Mexico, southeast Louisiana has a developed port infrastructure and a trained offshore workforce. Wind turbine jackets for the nation’s first offshore wind farm were engineered in New Orleans and built in Houma.<sup>3</sup> We also know that the wind industry was interested in developing wind energy off the coast of southeast Louisiana and the Louisiana/Mississippi border. The proliferation of oil and gas infrastructure has clearly created a missed opportunity for renewable energy generation and economic development in Southeast Louisiana.

<sup>3</sup> Barnes, Sam, “Wind turbine jackets off the coast of Rhode Island were engineered in New Orleans and built in Houma,” 1012 Industry Report, May 15, 2017, <https://www.1012industryreport.com/projects/fabrication/jackets-supporting-wind-turbines-off-coast-rhode-island-engineered-new-orleans-built-houma/>

Here is a map of industry interest from the July 20 BOEM memo:<sup>4</sup>



Comments by regional director Celata at an August 22, 2022, meeting hosted by BOEM confirm what these maps indicate. Celata was asked directly whether oil and gas infrastructure that had been decommissioned in place was inhibiting offshore wind development. He answered that the proposed WEAs were selected because wind companies would be able to run new infrastructure "around" the existing oil infrastructure to the shore, unlike most of the rest of the coast which is too thick with oil gear to make it practicable. At this point we must conclude that BOEM's previous decisions to site oil and gas infrastructure in southeast Louisiana are a direct cause of the region not being selected by BOEM for offshore wind development. As BOEM begins to permit offshore carbon capture

<sup>4</sup> Celata, Michael, "Request for Concurrence on Preliminary Wind Energy Areas for the Gulf of Mexico Area Identification Process Pursuant to 30 C.F.R. § 585.211(b)," Memorandum dated July 20, 2022, p. 32, <https://www.boem.gov/sites/default/files/documents//Draft%20Area%20ID%20Memo%20GOM%20508.pdf>.

and storage infrastructure, these pipeline conflicts will only continue to grow. The following recommendations would mitigate the impacts of the fossil infrastructure/OSW conflict to climate/environmental justice communities and/or assist in lessening or dismantling the barriers to offshore wind.

II. Use BOEM authority to clean up the ocean and speed the transition to offshore wind.

A. Cleaning up legacy infrastructure.

When an oil and gas operator signs a lease with BOEM, they agree to remove all equipment and clear the seafloor when the infrastructure is no longer useful for operation.<sup>5</sup> The Secretary has the authority to unilaterally determine infrastructure is no longer useful for operation.<sup>6</sup> The operator then has one year to remove its equipment.<sup>7</sup>

Pipelines

Since the 1960s, the Bureau of Safety and Environmental Enforcement has allowed the offshore oil and gas industry to leave 97% of pipelines (18,000 miles) on the seafloor when no longer in use.<sup>8</sup> As mentioned above, this aging infrastructure is inhibiting the development of offshore wind. Unfortunately, many companies who own offshore oil rigs at the end of their lifecycle are no longer financially solvent.<sup>9</sup> To make sure this doesn't happen in the future, the Department of Interior must end the practice of allowing lessees and ROW holders to decommission pipelines in place. The Department of the Interior must require that all pipelines be removed and operators clear the seafloor of all obstructions created by the lease and the pipeline right of way operations. The GOMR BSEE office has abused its

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<sup>5</sup> BOEM, "OIL AND GAS LEASE OF SUBMERGED LANDS UNDER THE OUTER CONTINENTAL SHELF LANDS ACT," Sec. 22(a), <https://www.boem.gov/sites/default/files/about-boem/Procurement-Business-Opportunities/BOEM-OCS-Operation-Forms/BOEM-2005.pdf>.

<sup>6</sup> *Id.* at Sec. 22(b).

<sup>7</sup> *Id.* at Sec. 22(c).

<sup>8</sup> U.S. Government Accountability Office, "Offshore Oil and Gas: Updated Regulations Needed to Improve Pipeline Oversight and Decommissioning," March 19, 2021, <https://www.gao.gov/products/gao-21-293>.

<sup>9</sup> Wolf, Alex, "Bankruptcies Fueling Environmental Crisis at Abandoned Oil Wells," Bloomberg Law, September 2, 2021, <https://news.bloomberglaw.com/bankruptcy-law/bankruptcies-fueling-environmental-crisis-at-abandoned-oil-wells>.

discretionary authority to allow operators to decommission in place. While years of NEPA analysis have relied upon an assumption that there is an equilibrium of activity (as new infrastructure is installed, old infrastructure is removed), the GAO report has revealed that there has actually been an accumulation. The Secretary of the Interior must issue an unequivocal directive that full removal is both the law and the department practice to ensure that there is no regional deviation and operators have clear regulatory certainty.

DOI should also complete and issue its financial assurance rulemaking and require lessees to hold fully vested trust funds and/or a sinking trust fund + supplemental financial assurance for all infrastructure and wells. The recent Fieldwood Bankruptcy and the still existing gap between the cost to decommission all associated infrastructure reveals a quickly boiling crisis if not met with appropriate government actions. The government must require cash on hand to cover asset retirement obligations if companies seek to profit from the collective resources of the United States.

For infrastructure in the ocean that has already been decommissioned in place, the Secretary of Interior should order all lessees to remove the pipelines immediately.<sup>0</sup> 30 CFR § 250.1754 establishes clear authority to the BSEE Regional Supervisor to order the removal of a pipeline decommissioned in place if that pipeline constitutes an obstruction. These pipelines provide no physical or material benefit to the American public, but they do impose an artificial limit on how much area can be available for offshore wind development.

We recommend the establishment of an "Idle Iron Pipeline" program to make this administratively feasible, where the Department identifies which of the 18,000 miles of decommissioned in place pipelines obstruct future offshore wind, and prioritize their expedient removal. If the lessees are not financially solvent, DOI should be funded to remove this infrastructure itself, and Congress should fund this activity with a tax on companies that benefit from offshore oil and gas drilling. Anything less than aggressively removing all no longer in use oil and gas infrastructure delays the buildout of American offshore wind and functions as a de facto subsidy to the oil and gas industry.

#### Idle Iron

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<sup>0</sup> 30 CFR § 250.1754.



Idle Iron is a policy established in Notice to Lessees (NTL) No. 2010 G05 and updated with NTL No. 2018 G03<sup>2</sup> to address timelines associated with the completion of platform removal requirements and well plug and abandonment. BSEE introduced Idle Iron to prevent “inactive facilities and structures from littering the Gulf of Mexico by requiring companies to dismantle and responsibly dispose of infrastructure after they plug non-producing wells.” The last known structural idle iron list contained over 600 platforms as of 2010.<sup>3</sup> It’s critical that there is a public disclosure of the progress of this program. Idled platforms pose both a real time hazard with hazards, but with a mandatory buffer of 500 feet per rig, substantially constrain the future scale of offshore wind.

Shorten Idle Iron timelines from “5 years of no operations” to “1 year of no operations” to trigger Idle Iron requirements. Failing to decommission within one year is a violation of the lease terms and a trigger for an Incident of Noncompliance (INC). It should also be the trigger for Idle Iron. Make the Idle Iron list and status of decommissioning public on the BSEE website. We also recommend modifying NTL No. 2018 G03 to end future use exceptions. If a platform or other facility has not been used in the past 5 years, it is unlikely there is any legitimate future use.

If a lessee is noncompliant with Idle Iron, BSEE should bar that operator from bidding in the next lease sale and prohibit the transfer of its leases to other firms. We recommend the preparation for potential IBLA appeals and to staff up accordingly. We recommend that a MOU and workflow is established between BSEE and BOEM’s Office of Leasing and Plans to ensure that offices are alerted when a lessee is on the no bid and no transfer list.

### Rigs to Reef

The Rigs to Reef program encourages platforms to be left in place (or toppled or removed and moved to a predetermined reefing location) and placed in a state driven and funded rigs to reefs program, as an alternative option to the requirement of removal. Naturally this

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US BOEMRE (2010). Notice to lessees and operators of federal oil and gas leases and pipeline right-of-way holders in the Outer Continental Shelf, Gulf of Mexico OCS region. NTL No. 2010- G05.

<https://www.bsee.gov/sites/bsee.gov/files/notices-to-lessees-ntl/notices-to-lessees/10-g05.pdf>

<sup>2</sup> US BOEM (2018). Idle Iron Decommissioning Guidance for Wells and Platforms. NTL No. 2018-G03

<https://www.bsee.gov/sites/bsee.gov/files/notices-to-lessees-ntl//ntl-2018-g03.pdf>

<sup>3</sup> Keen, Elena. The Billion Dollar Brewing in the Gulf. <https://www.ecomagazine.com/in-depth/featured-stories/the-billion-dollar-problem-brewing-in-the-gulf>

option has become attractive to oil and gas operators because it is less expensive to “reef” a structure instead of removing it. Today there are more than 515 “reefed” rigs on the seafloor in federal waters, not counting “reefed structures” in state waters. Because reefed structures require a mandatory buffer of 500 feet per rig, we strongly recommend the termination of this program. Any additional reefed rigs will necessarily limit the scale of future offshore wind and jeopardizes the buildout of domestic and secure energy.

B. Issuing no new leases in the next five year plan.

The Intergovernmental Panel on Climate Change (IPCC) has set a goal of reaching net zero global greenhouse gas emissions by 2050 to avoid the worst impacts of the climate crisis.<sup>4</sup> The International Energy Agency (IEA) has made it clear that for the world to reach its net zero by 2050 goal, it must cease all new fossil fuel development.<sup>5</sup> Therefore, the only action compatible with the global scientific consensus of the climate crisis is to issue no new oil and gas leases in the Outer Continental Shelf. But as we have seen above, the issuance of new offshore oil and gas leasing will necessitate new pipelines that will conflict with otherwise viable offshore wind energy areas.

III. The Community Benefit Agreements in the Gulf of Mexico wind areas need to be more robust and expansive than those in other wind energy areas leased by BOEM.

A. BOEM should expand its definition of beneficiaries eligible for CBAs

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<sup>4</sup> IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–24, doi:10.1017/9781009157940.001.

<sup>5</sup> International Energy Agency, Net Zero by 2050 A Roadmap for the Global Energy Sector, May 2021, [https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector\\_CORR.pdf](https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf).

Community benefit agreements (CBAs) are agreements signed by community benefit groups and developers, identifying a range of community benefits the developer agrees to provide as part of the development, in return for the community's support of the project.<sup>6</sup> In a previous offshore wind lease sale notice for waters off the coast of California, BOEM has provided a 2.5 percent credit to developers if they enter into qualifying CBAs.<sup>7</sup> BOEM should expand its definition of CBAs to include climate/environmental justice communities who have been excluded from offshore wind development by BOEM's previous decisions to site oil and gas infrastructure in the path of what could have been offshore wind transmission cables.

BOEM has traditionally defined CBAs as "intended to mitigate potential impacts to the community or stakeholder group from renewable energy activity or structures on the Lease Area, and particularly to assist fishing and related industries to manage transitions, gear changes, or other similar impacts which may arise from the development of the Lease Area."<sup>8</sup> But communities who will not get the economic benefits and the health benefits of transitioning to renewable energy are also impacted by the decision of where to site WEAs. Therefore BOEM should expand its definition of CBAs to ensure the equitable siting of offshore wind areas in line with the executive branch's climate/environmental justice commitments. .

We agree with Secretary of the Interior Deb Haaland who said:

"For generations, we've put off the transition to clean energy and now we're facing a climate crisis. It's a crisis that doesn't discriminate — every community is facing more extreme weather and the costs associated with that. But not every community has the resources to rebuild, or even get up and relocate when a climate event happens in their backyards. The climate crisis disproportionately impacts communities of color and low income families. As our country faces the interlocking challenges of a global

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<sup>6</sup> Department of Energy, Community Benefit Agreements: Frequently Asked Questions (FAQs), <https://www.energy.gov/sites/prod/files/2017/09/f36/CBA%20Resource%20Guide%20FAQs.pdf>.

<sup>7</sup> Bureau of Ocean Energy Management, "Draft Bidding Credit – Requirements and Restrictions," May 4, 2022, <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/CA%20BFF%20Addendum.pdf>.

<sup>8</sup> *Id.*

pandemic, economic downturn, racial injustice, and the climate crisis we have to transition to a brighter future for everyone.”

In order to live up to Secretary Haaland’s vision, more communities that have been excluded from the clean energy economy by legacy oil and gas infrastructure need to be included in the CBAs. The denial of access to the economic benefits of offshore wind development caused by BOEM decision has an impact on coastal communities on par with offshore wind impacts to fishing communities.

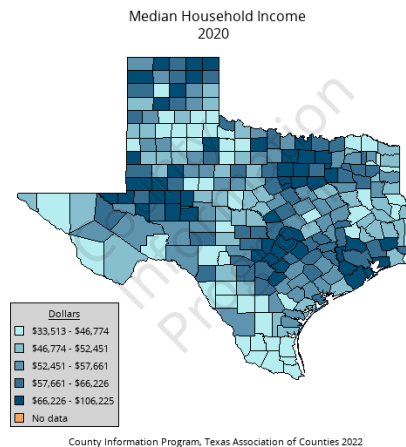
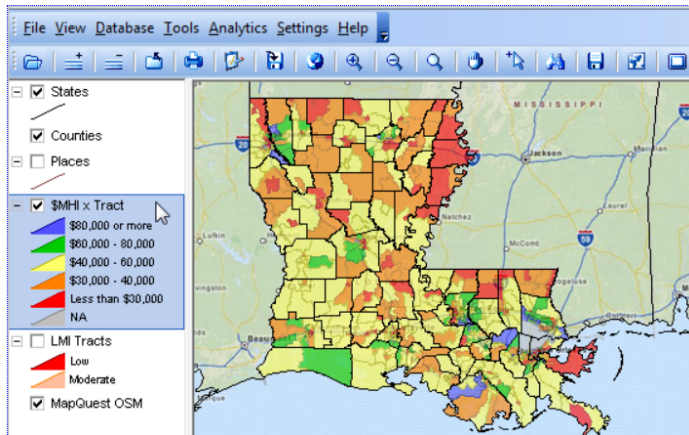
B. The developer credit for CBAs should be higher.

In California, BOEM used a multiple factor auction which allowed for the consideration of many factors in addition to price in determining winners and payments. BOEM created a credit that favored developer commitments to a CBA with a community or stakeholder group whose use of the lease area would be directly affected by the proposed offshore wind development. The CBA credit for developers in California was 2.5 percent, but the credit for Gulf of Mexico developers should be higher. Part of BOEM’s stated rationale for CBAs is to offset impacts to fisheries. The 2021 commercial fisheries landings for California, Louisiana and Texas were:

| Year ▼ | State ▼    | Pounds ▼    | Metric Tons ▼ | Dollars ▼   |
|--------|------------|-------------|---------------|-------------|
| 2021   | CALIFORNIA | 149,747,545 | 67,925        | 198,899,541 |
| 2021   | LOUISIANA  | 741,071,355 | 336,148       | 352,811,908 |
| 2021   | TEXAS      | 79,096,286  | 35,878        | 237,407,574 |

Louisiana and Texas both have larger commercial fisheries than California and will likely need more robust CBAs to offset these impacts.

California is also the wealthiest state in the nation, with the state's wealth concentrated in its coastal communities.<sup>9</sup> In contrast, Louisiana<sup>20</sup> and Texas<sup>2</sup> have less concentrated wealth in their coastal areas, with pockets of poverty concentrated near legacy oil and gas infrastructure:



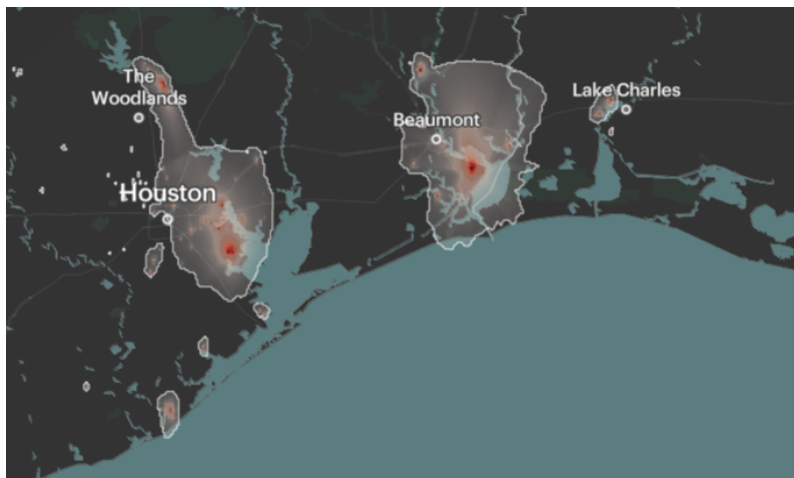
There is also a great need for environmental remediation on the Gulf Coast. The areas near the proposed WEAs, the Houston and Lake Charles regions, have some of the worst air pollution in the country and highest risks for developing cancer.

<sup>9</sup> Legislative Analyst's Office, California's Geography of Wealth, 2019, <https://lao.ca.gov/reports/2019/4093/ca-geography-wealth-090519.pdf>.

<sup>20</sup> Proximity One, Mapping Louisiana Neighborhood Patterns, <http://proximityone.com/dmi/ladmi.htm>.

<sup>2</sup> Texas Association of Counties, Texas Counties: Median Household Income Map, [https://txcip.org/tac/census/data\\_mappage.php?MORE=1013](https://txcip.org/tac/census/data_mappage.php?MORE=1013).

Pollution hotspot map created by ProPublica:<sup>22</sup>



These onshore communities could be impacted by greater port traffic and increased manufacturing because of their proximity to the WEAs.<sup>23</sup> These already overburdened communities should have opportunities to benefit from CBAs that are higher than the previously established standard of a 2.5 percent developer credit.

C. Enable and promote full community ownership of offshore wind development.

One of the best ways for communities to take full advantage of offshore development would be full or partial community ownership. This is a model that has already been established in the United Kingdom<sup>24</sup> and Norway.<sup>25</sup> Typically a community ownership model involves the creation of a cooperative entity to co own a wind development with the developer or a utility company. Community members can then buy a share of the cooperative entity and co own the project. Embracing this model would allow climate/environmental justice

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<sup>22</sup> Shaw, Al and Younges, Lylla, "The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S.," March 15, 2022, <https://projects.propublica.org/toxmap/>.

<sup>23</sup> BOEM, "Ocean Wind 1 Offshore Wind Farm Draft Environmental Impact Statement," June 2022, <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/OceanWind1-DEIS-Voll.pdf>.

<sup>24</sup> Durakovic, Adnan, "A UK First: Community Ownership of Offshore Wind Farms," September 28, 2021, <https://www.offshorewind.biz/2021/09/28/a-uk-first-community-ownership-of-offshore-wind-farms/>.

<sup>25</sup> Berkeley Law, "Envisioning Offshore Wind for California," June 2021, <https://www.law.berkeley.edu/wp-content/uploads/2021/06/Envisioning-Offshore-Wind-June-2021.pdf>

communities who have borne the brunt of toxic infrastructure to fully participate in the clean energy economy. There is already a related movement underway in the federal government to share management authority of federal lands/waters with Indigenous tribes, which can be seen as an attempt to acknowledge the widespread theft of Indigenous lands by the United States government.<sup>26</sup> In addition to addressing historical harms such as land theft and environmental injustice, co ownership and co management can help get community buy in for development projects where there may be aesthetic or other types of objections.

#### IV. Establish a public development option

Wind energy in public waters should be developed by a public entity. Within the Exclusive Economic Zone (EEZ), the United States has “sovereign rights for the purpose of exploring, exploiting, conserving and managing natural resources, whether living and nonliving, of the seabed and subsoil and the superjacent waters and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds.”<sup>27</sup> Essentially the people of the United States collectively own the EEZ and the Outer Continental Shelf and the federal government manages it for the nation’s collective benefit. It follows that the maximum benefit from this management would be for the people of the United States to collectively own the energy and/or the resulting profits from generating that energy.

Instead we have a system where the federal government collects a relatively small amount of lease money from private developers who then sell the energy back to the public at a profit. This profit should instead be captured and reinvested into ocean remediation or to offset people’s energy bills or some other public purpose. This is what some countries already do. For example, Denmark has a wind company, Ørsted, in which the Danish government has a majority ownership position. This company develops wind in Denmark but also in the United States. When Ørsted turns a profit in the United States, a majority of the dividends are reinvested into Denmark’s people. A national wind developer could help

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<sup>26</sup> U.S. Department of Interior, “Tribal Co-Management of Federal Lands,” March 8, 2022, <https://www.doi.gov/ocl/tribal-co-management-federal-lands>.

<sup>27</sup> National Oceanic and Atmospheric Administration, “What is the EEZ?,” February 15, 2022, <https://oceanservice.noaa.gov/facts/eez.html>

promote an equitable sharing of the benefits of offshore wind while ensuring they no longer flow out of the country.

V. Conclusion

The proposed Wind Energy Areas reflect a major problem with developing wind energy in the Gulf of Mexico: both active and inactive oil and gas infrastructure littering the ocean. Gulf communities have lived for too long with the toxic consequences of this infrastructure and now their swift transition to cleaner energy is being threatened. To best serve climate/environmental justice communities, BOEM should oversee the removal of legacy oil and gas infrastructure while preventing the installation of new infrastructure. BOEM should also proactively ensure that the profits of offshore wind are fairly shared with impacted communities through robust community benefit agreements and leading the charge for the creation of a public wind developer.

Sincerely,

Kendall Dix  
National Policy Director  
kdix@taproot.earth  
(434) 442 0179



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Beaudreau, Tommy P" <tommy\_beaudreau@ios.doi.gov>, Katherine Tsantiris <ktsantiris@oceanconservancy.org>, "Landa, Mackenzie (Kenzie)" <mackenzie\_landa@ios.doi.gov>, "Daniel-Davis, Laura E" <laura\_daniel-davis@ios.doi.gov>

**Cc:** Amy Trice <atrice@oceanconservancy.org>, Michael LeVine <mlevine@oceanconservancy.org>, Andrew Hartsig <ahartsig@oceanconservancy.org>, Will Fadely <wfadely@cassidy.com>

**Subject:** Re: [EXTERNAL] Following up: Thank you!

**Date:** Thu, 21 Apr 2022 17:28:49 +0000

**Inline-Images:** image001.jpg

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I echo the appreciation and gratitude!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

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**From:** Beaudreau, Tommy P <tommy\_beaudreau@ios.doi.gov>

**Sent:** Thursday, April 21, 2022 1:18 PM

**To:** Katherine Tsantiris <ktsantiris@oceanconservancy.org>; Landa, Mackenzie (Kenzie) <mackenzie\_landa@ios.doi.gov>; Daniel-Davis, Laura E <laura\_daniel-davis@ios.doi.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Cc:** Amy Trice <atrice@oceanconservancy.org>; Michael LeVine <mlevine@oceanconservancy.org>; Andrew Hartsig <ahartsig@oceanconservancy.org>; Will Fadely <wfadely@cassidy.com>

**Subject:** RE: [EXTERNAL] Following up: Thank you!

Kathy and all,

Thanks very much for your time yesterday and, as always, your thoughtfulness and commitment across all of these issues. Very grateful and look forward to the follow up.

Best,

TPB

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**From:** Katherine Tsantiris <ktsantiris@oceanconservancy.org>

**Sent:** Thursday, April 21, 2022 1:16 PM

**To:** Beaudreau, Tommy P <tommy\_beaudreau@ios.doi.gov>; Landa, Mackenzie (Kenzie) <mackenzie\_landa@ios.doi.gov>; Daniel-Davis, Laura E <laura\_daniel-davis@ios.doi.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Cc:** Amy Trice <atrice@oceanconservancy.org>; Michael LeVine <mlevine@oceanconservancy.org>; Andrew Hartsig <ahartsig@oceanconservancy.org>; Will Fadely <wfadely@cassidy.com>

**Subject:** [EXTERNAL] Following up: Thank you!

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Good afternoon,

We just wanted to follow up to thank you all again for taking the time to meet with us yesterday. It was great to have the opportunity to talk to you about our work on offshore oil and gas, the climate and plastics nexus, and offshore wind. We appreciate the insights you all provided, and we look forward to continuing to work with you.

We will be following up separately to set up some more detailed conversations about our upcoming offshore wind report and our work on the intersection between climate and plastics

We hope that we can be a resource to you all, so please let us know how we can assist and support the work that you are doing to move this administration's agenda forward.

Thank you again,

Kathy



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[kt\\_antiri@oceanconservancy.org](mailto:kt_antiri@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>

**Subject:** Re: [EXTERNAL] Fw: Biden Administration to Hold First Offshore Drilling Lease Sale

**Date:** Tue, 16 Nov 2021 20:53:42 +0000

**Inline-Images:** image001.png

---

Thanks for sharing, Diane.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Tuesday, November 16, 2021 3:47 PM


**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Fw: Biden Administration to Hold First Offshore Drilling Lease Sale

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Amanda and Marissa, writing to share Oceana's press release, see below, on the upcoming lease sale.  
Thank you, Diane

**Diane Hoskins** | Campaign Director

 **Description:**  
<http://oceana.deskpro.com/file.php/93702JHKYWGBMKHXXSQW0/image001.p>

1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

**D** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Matheny, Austin <amatheny@oceana.org>

**Sent:** Tuesday, November 16, 2021 3:35 PM

**To:** Matheny, Austin <amatheny@oceana.org>

**Cc:** Cranor, Dustin <dcranor@oceana.org>

**Subject:** Biden Administration to Hold First Offshore Drilling Lease Sale



---

**PRESS RELEASE**

1025 Connecticut Ave., NW Suite 200  
Washington, DC 20036

**P** +(202) 833-3900

**F** +(202) 833-2070

**OCEANA.ORG**

**For Immediate Release:** November 16, 2021

**Contacts:** Austin Matheny, [amatheny@oceana.org](mailto:amatheny@oceana.org), 858.395.5577  
Dustin Cranor, [dcranor@oceana.org](mailto:dcranor@oceana.org), 954.348.1314

## **Biden Administration to Hold First Offshore Drilling Lease Sale** *Oceana Urges President Biden to Fulfill Campaign Commitment and End Leasing for Offshore Oil Drilling*

**WASHINGTON** — On Wednesday [at 10 a.m. EST](#), the Biden administration is expected to livestream its first lease sale, Lease Sale 257, for offshore oil and gas development in the Gulf of Mexico. This lease sale contradicts President Biden's campaign promise to end new offshore drilling. [During a presidential debate](#), Biden said, "No more drilling on federal lands. No more drilling, including offshore. No ability for the oil industry to continue to drill, period, ends, No. 1." In January, President Biden issued an [executive order](#) pausing all federal offshore and onshore oil and gas leasing.

In February, in response to the executive order, the [Bureau of Ocean Energy Management \(BOEM\) rescinded](#) the Record of Decision for Lease Sale 257, which was initially scheduled for March 17, 2021. In March, several states sued the Biden administration over the leasing pause. Oceana and a coalition of environmental groups [participated as amicus](#) to defend the administration's authority to pause or cancel oil and gas lease sales. In June, a Louisiana federal district court [judge prohibited](#) the federal government from implementing the leasing pause. In September, citing the judge's order, [BOEM reissued](#) the Record of Decision for Lease Sale 257 and set the date of the sale. In the Gulf of Mexico, 10.8 million acres are [currently under lease](#) for offshore oil and gas, but roughly 75% of the total leased area — 8 million acres — is currently unused.

Oceana campaign director Diane Hoskins released the following statement in response to the lease sale:

"Continued leasing for dirty and dangerous offshore drilling is a disaster for our environment, our economy, and our climate. The industry has already stockpiled 8 million acres of unused offshore oil and gas leases in the Gulf of Mexico — more than six times the size of Delaware — and that's before any new leases are sold. Getting serious about reducing emissions from fossil fuels must start with ending leasing for more offshore oil and gas development. Leases sold today will not produce oil and gas for at least five years and will continue to pollute for another 30 years. We cannot afford reckless decades of carbon pollution in order to avert the worst impacts of climate change.

"Instead of repeating mistakes from the past, President Biden must uphold his commitment to end new offshore oil and gas leasing. We urge the administration to immediately reverse course and explore every opportunity to uphold the president's commitment to protecting our communities, our climate, and our economy from the threat of drilling. Our oceans can and must be a major part of our clean energy future through renewable offshore wind power, but we are counting on President Biden to keep his promise to end further offshore oil and gas leasing."

A recent [Oceana analysis](#) found that permanent offshore drilling protections for all unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions. That's the equivalent to taking every car in the U.S. off the road for the next 15 years. The analysis also found that permanent protections in all unleased federal waters could prevent more than \$720 billion in damages to people, property, and the environment.

As of today, nationwide opposition and concern over offshore drilling activities includes:

- Every East and West Coast governor, including Florida, Georgia, South Carolina, North Carolina, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine, California, Oregon, and Washington
- [Nearly 400 local communities](#)
- Over 2,300 local, state, and federal bipartisan officials
- East and West Coast alliances representing over 55,000 businesses
- Mid-Atlantic, New England, Pacific, and South Atlantic fishery management councils
- Commercial and recreational fishing interests, such as the Pacific Coast Federation of Fishermen's Associations, Snook and Gamefish Foundation, Fisheries Survival Fund, Billfish Foundation, and International Game Fish Association
- California Coastal Commission, California Fish and Game Commission, and California State Lands Commission
- More than 120 [scientists](#)
- More than 80 former [military leaders](#)
- Department of Defense, NASA, U.S. Air Force, and Florida Defense Support Task Force

For more information about Oceana's efforts to stop the expansion of offshore drilling, please [click here](#).

*Oceana is the largest international advocacy organization dedicated solely to ocean conservation. Oceana is rebuilding abundant and biodiverse oceans by winning science-based policies in countries that control one-third of the world's wild fish catch. With more than 225 victories that stop overfishing, habitat destruction, pollution, and the*

*killing of threatened species like turtles and sharks, Oceana's campaigns are delivering results. A restored ocean means that 1 billion people can enjoy a healthy seafood meal, every day, forever. Together, we can save the oceans and help feed the world. Visit [www.usa.oceana.org](http://www.usa.oceana.org) to learn more.*

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>

**Subject:** [EXTERNAL] Fwd: U.S. Climate & Energy Media Hits

**Date:** Wed, 2 Nov 2022 00:03:22 +0000

**Inline-Images:** image003.png

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FYI and congratulations on this step forward!

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**U.S. Climate & Energy Media Hits:**

- Electrek (online)
  - 2 duplicates in [NewsExplorer](#) and [OltNews](#)



[Move over, oil – wind energy is officially coming to the Gulf of Mexico \(electrek.co\)](#)

Climate & Energy – Major online

October 31, 2022

## **Move over, oil – wind energy is officially coming to the Gulf of Mexico**

[Michelle Lewis](#) - Oct. 31st 2022 3:02 pm PT

The US Bureau of Ocean Energy Management (BOEM) today announced it has finalized two Wind Energy Areas in the Gulf of Mexico that will have the potential to produce enough clean energy to power nearly 3 million homes.

Wind energy is coming to the Gulf of Mexico



The first area is located approximately 24 nautical miles off the coast of Galveston, Texas. This area totals 508,265 acres and has the potential to power 2.1 million homes.

The second area is located approximately 56 nautical miles off the coast of Lake Charles, Louisiana. It totals 174,275 acres and has the potential to power over 740,000 homes.

BOEM slightly reduced the size of the two areas from their draft versions to address concerns expressed by the Department of Defense and the US Coast Guard regarding shipping, marine navigation, and military operations.

The Biden administration announced in July that it would pursue the development of offshore wind energy in the Gulf, which is already a hub for oil and gas production.

Ocean conservation nonprofit [Oceana](#)'s campaign director Diane Hoskins said:

*It's great to see offshore wind development advancing in the Gulf of Mexico. Unlike dirty and dangerous offshore drilling that pollutes our waters and harms frontline communities in the Gulf, offshore wind can support a just and equitable transition away from the fossil fuels that are driving the climate crisis.*

*This announcement lays the groundwork for responsible offshore wind development in the Gulf of Mexico, which will help lower energy costs, create jobs, and fight climate change.*

Next steps in BOEM's renewable energy competitive leasing process include issuing a Proposed Sale Notice with a 60-day public comment period later this year or early in 2023.

The expansion of the US offshore wind industry is a key part of the Biden administration's plan to decarbonize the electricity sector by 2035.

**Austin Matheny-Kawesch** (he/him) | Communications Manager



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E [amatheny@oceana.org](mailto:amatheny@oceana.org) | W [www.oceana.org](http://www.oceana.org) | Twitter [@AustinWMatheny](https://twitter.com/AustinWMatheny)

**From:** Kendall Dix <kdix@taproot.earth>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] If IRA passes...  
**Date:** Mon, 1 Aug 2022 12:43:08 -0400

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OK, sounds good. I would really like to raise this point publicly because I don't think it has been made: if this bill passes, it's possible that BOEM will have to cancel some offshore wind lease sales.

On Mon, Aug 1, 2022 at 12:38 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:  
Hey Kendall,

We're still reviewing the language in the IRA and its implications for our programs with our solicitors' office at this time. I can follow up when we have clear guidance.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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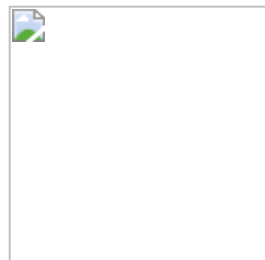
**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Monday, August 1, 2022 12:35 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] If IRA passes...

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Marissa, obviously we're concerned about the section of IRA that ties offshore oil to offshore wind. I'm curious if it passes, do you think BOEM will have held the requisite oil lease sales in 2022? If not, will you all have to cancel offshore wind lease sales in 2023?

Thanks,  
Kendall

--



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/him

---





- [\(434\) 442-0179](tel:(434)442-0179)
- [kdix@taproot.earth](mailto:kdix@taproot.earth)
- [taproot.earth](http://taproot.earth)

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*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

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*Our new name, new website, and new logo mark how we are meeting the urgent climate demands of this moment. Update your address books with our new email addresses and follow Taproot on social for the latest and to learn about our upcoming launch events!*

**From:** Michael LeVine <mlevine@oceanconservancy.org>

**To:** "rduren@arizona.edu" <rduren@arizona.edu>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Cc:** Anna-Marie Laura <alaura@oceanconservancy.org>

**Subject:** [EXTERNAL] Introduction

**Date:** Mon, 27 Sep 2021 16:02:10 +0000

**Inline-Images:** image001.jpg

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Hi Riley,

Hope all is well. As discussed during our call last month, I asked and discovered that there is significant interest at BOEM and BSEE (with the Department of the Interior) in connecting with you.

So, with this email, I am introducing you to Marissa Knodel. Marissa is an advisor to BOEM and has offered to put together the right group for a meeting.

Hope this connection is fruitful, and I look forward to helping in any way I can.

Mike



Michael LeVine  
he/him/his  
Senior Arctic Fellow  
Juneau, Alaska  
O: 907.723.0136  
[mlevine@oceanconservancy.org](mailto:mlevine@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

**From:** Google Calendar <calendar-notification@google.com>

**To:** <marissa.knodel@boem.gov>, <aherad@taproot.earth>

**Subject:** [EXTERNAL] Invitation: Taproot + BOEM @ Thu Jan 19, 2023 10am - 10:30am (EST)  
(marissa.knodel@boem.gov)

**Date:** Mon, 9 Jan 2023 20:55:52 +0000

**Importance:** Normal

**Attachments:** unnamed; invite.ics

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**Join Zoom Meeting**

(b) (5)

ID: (b) (5)

passcode: (b) (5)

**Join by phone**

(US) (b) (5)

passcode: (b) (5)

[Joining instructions](#)

**Joining notes**

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[Zoom for G Suite Add-On Help](#)

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Meeting host: kdix@taproot.earth

**Join Zoom Meeting:**

(b) (5)

**When**

Thursday Jan 19, 2023 · 10am – 10:30am (Eastern Time - New York)

**Guests**

kdix@taproot.earth - organizer

aherad@taproot.earth

marissa.knodel@boem.gov

[View all guest info](#)

**Reply** for marissa.knodel@boem.gov

Yes  No  Maybe

More options

Invitation from [Google Calendar](#)

You are receiving this email because you are an attendee on the event. To stop receiving future updates for this event, decline this event.

Forwarding this invitation could allow any recipient to send a response to the organizer, be added to the guest list, invite others regardless of their own invitation status, or modify your RSVP. [Learn more](#)

**Event:** [EXTERNAL] Invitation: Taproot + BOEM @ Thu Jan 19, 2023 10am - 10:30am (EST) (marissa.knodel@boem.gov)

---

**Start Date:** 2023-01-19 15:00:00 +0000

**End Date:** 2023-01-19 15:30:00 +0000

**Organizer:** kdix@taproot.earth <kdix@taproot.earth>

**Date Created:** 2023-01-09 21:03:46 +0000

**Date Modified:** 2023-01-09 21:03:46 +0000

**Priority:** 5

**DTSTAMP:** 2023-01-09 20:55:52 +0000

**Attendee:** aherad@taproot.earth <aherad@taproot.earth>; marissa.knodel@boem.gov <marissa.knodel@boem.gov>

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Taproot + BOEM

You have been invited by kdix@taproot.earth to attend an event named Taproot + BOEM on Thursday Jan 19, 2023 · 10am – 10:30am (Eastern Time - New York).

Join Zoom (b) (5)

[Redacted]  
[Redacted]  
[Redacted] >

ID: (b) (5)  
passcode: (b) (5)

Join by phone

(US) (b) (5) #>  
passcode: (b) (5)

Joining instructions<<https://www.google.com/url?>

(b) (5)  
[Redacted]  
[Redacted]  
[Redacted]

Joining notes

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Zoom for G Suite Add-On Help<[https://www.google.com/url?q=https:%2F%2Fsupport.zoom.us%2Fhc%2Fen-us%2Farticles%2F360020187492-Zoom-for-GSuite-add-on-Troubleshooting%23h\\_01FRGZTWJYRGRDMPQW4N041QF7&sa=D&ust=1673729700000000&usg=AOvVaw0nemW0MNixA7OTiWmla2YK](https://www.google.com/url?q=https:%2F%2Fsupport.zoom.us%2Fhc%2Fen-us%2Farticles%2F360020187492-Zoom-for-GSuite-add-on-Troubleshooting%23h_01FRGZTWJYRGRDMPQW4N041QF7&sa=D&ust=1673729700000000&usg=AOvVaw0nemW0MNixA7OTiWmla2YK)>  
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Meeting host: kdix@taproot.earth

Join Zoom Meeting:

(b) (5)

When

Thursday Jan 19, 2023 · 10am – 10:30am (Eastern Time - New York)

Guests

kdix@taproot.earth<mailto:kdix@taproot.earth> - organizer

aherad@taproot.earth<mailto:aherad@taproot.earth>

marissa.knodel@boem.gov<mailto:marissa.knodel@boem.gov>

View all guest info<[https://calendar.google.com/calendar/event?](https://calendar.google.com/calendar/event?action=VIEW&eid=NWUxNmM0OGV2cDRhcGh2cTMxOW9mbGdzMmUgbWFyaXNzYS5rbm9kZWxAYm9lbS5nb3Y&tok=MTgja2RpeEB0YXByb290LmVhcnRoY2I5N2MzZWnkNjVhNmY5MjU3ODc3ODI5MTg1YzBIMTZiMDIIZDcxNg&ctz=America%2FNew_York&hl=en&es=0)

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Reply for marissa.knodel@boem.gov<mailto:marissa.knodel@boem.gov>

<[https://calendar.google.com/calendar/event?](https://calendar.google.com/calendar/event?action=RESPOND&eid=NWUxNmM0OGV2cDRhcGh2cTMxOW9mbGdzMmUgbWFyaXNzYS5rbm9kZWxAYm9lbS5nb3Y&rst=1&tok=MTgja2RpeEB0YXByb290LmVhcnRoY2I5N2MzZWnkNjVhNmY5MjU3ODc3ODI5MTg1YzBIMTZiMDIIZDcxNg&ctz=America%2FNew_York&hl=en&es=0)

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More options<<https://calendar.google.com/calendar/event?>

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**Event:** Taproot + BOEM

---

**Start Date:** 2023 01 19 10:00:00 0500

**End Date:** 2023 01 19 10:30:00 0500

**Organizer:** kdix@taproot.earth <kdix@taproot.earth>

**Status:** CONFIRMED

**DTSTAMP:** 2023 01 09 20:55:52 +0000

**Attendee:** aherad@taproot.earth <aherad@taproot.earth>; marissa.knodel@boem.gov <marissa.knodel@boem.gov>; kdix@taproot.earth <kdix@taproot.earth>

**Date Created:** 2023-01-09 20:55:51 +0000

**Date Modified:** 2023-01-09 20:55:51 +0000

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(b) (5) (passcode: (b) (5))

Joining instructions: <https://www.google.com/url?q=https://applications.zoom.us/addon/invitation/detail?meetingUid%3Dh8RMua3SQPmP8e1lJrfHAQ%253D%253D%26signature%3D22eb24d8a73b1f7f22f0815239915d93904a18c56963646e8ffecab47dca3bcb%26v%3D1&sa=D&source=calendar&usg=AOvVaw2MoncUdWH0MDSjirZPAGh9>

[https://www.google.com/url?q=https://support.zoom.us/hc/en-us/articles/360020187492-Zoom-for-GSuite-add-on-Troubleshooting%23h\\_01FRGZTWJYRGRDMPQW4N041QF7&sa=D&source=calendar&usg=AOvVaw3pOlmJKYgDG37G4Qn9Q2](https://www.google.com/url?q=https://support.zoom.us/hc/en-us/articles/360020187492-Zoom-for-GSuite-add-on-Troubleshooting%23h_01FRGZTWJYRGRDMPQW4N041QF7&sa=D&source=calendar&usg=AOvVaw3pOlmJKYgDG37G4Qn9Q2)

Zoom for G Suite Add On Help

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Please do not edit this section.

-----



**From:** Rob Werner <rob\_werner@lcv.org>

**To:** "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>

**Cc:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Foreman, Jennafer (Jenna)" <Jennafer.Foreman@boem.gov>, "Vang, Kathy" <Kathy.Vang@boem.gov>

**Subject:** Re: [EXTERNAL] Invite: Video for New Hampshire Energy Week

**Date:** Wed, 15 Mar 2023 18:50:29 +0000

---

Thanks so much for your interest, Liz. We'll stay tuned.

Hope you week is going well.

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
(603) 674-9810

---

**From:** Klein, Elizabeth A <Elizabeth.Klein@boem.gov>

**Sent:** Wednesday, March 15, 2023 10:26 AM

**To:** Rob Werner <rob\_werner@lcv.org>

**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Farmer, Isis U <Isis.Farmer@boem.gov>; Foreman, Jennafer (Jenna) <Jennafer.Foreman@boem.gov>; Vang, Kathy <Kathy.Vang@boem.gov>

**Subject:** RE: [EXTERNAL] Invite: Video for New Hampshire Energy Week

Hi Rob,

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Hope you're having a great week,

Liz

---

**From:** Rob Werner <rob\_werner@lcv.org>

**Sent:** Wednesday, March 15, 2023 8:59 AM

**To:** Klein, Elizabeth A <Elizabeth.Klein@boem.gov>

**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Invite: Video for New Hampshire Energy Week

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Please let me know if you are able to participate and I'm happy to answer any questions you may have!

Best,

Rob

Rob Werner  
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League of Conservation Voters  
(603) 674-9810

**From:** "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>

**To:** Rob Werner <rob\_werner@lcv.org>

**Subject:** Automatic reply: [EXTERNAL] Invite: Video for New Hampshire Energy Week

**Date:** Mon, 3 Apr 2023 13:29:34 +0000

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I am currently out of the office with limited access to email. If you need to reach someone immediately, you can contact my acting deputy chief of staff Jenna Foreman at [jennafer.foreman@boem.gov](mailto:jennafer.foreman@boem.gov). Otherwise, I look forward to connecting when I return on Tuesday, April 11.

**From:** Rob Werner <rob\_werner@lcv.org>

**To:** "Foreman, Jennafer L" <Jennafer.Foreman@boem.gov>

**Cc:** "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Vang, Kathy" <Kathy.Vang@boem.gov>

**Subject:** Re: [EXTERNAL] Invite: Video for New Hampshire Energy Week

**Date:** Mon, 3 Apr 2023 15:35:25 +0000

**Inline-Images:** image001.jpg; image002.png; image001(1).jpg; image002(1).png

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Hi Jennafer:

Terrific news, thanks so much!

Yes, the video content themes are spot on.

I'll check with colleagues on the A/V requirements and the timeframe.

I've not asked any other DOI officials...Liz was my first choice, glad this works out.

Best,

Rob

Sent from my iPhone

On Apr 3, 2023, at 11:20 AM, Foreman, Jennafer L <Jennafer.Foreman@boem.gov> wrote:

Hi Rob,

Liz would be happy to record a video for New Hampshire Energy Week.

Just to review – you're group is looking for 4-5 minutes where Liz provides some remarks on clean energy, IRA implementation, offshore wind, and other items of interest, correct?

Are there any A/V requirements we should know about? When will your team need the final video by?

Additionally – have you asked any other DOI officials to provide video remarks/to attend the conference and deliver remarks?

Thank you!

Jenna



**Jennafer Foreman (She/her/hers)**

Acting Deputy Chief of Staff  
Office of the Director  
Bureau of Ocean Energy Management

Cell 907-317-0799

Desk 907-334-5324

Email [Jennafer.foreman@boem.gov](mailto:Jennafer.foreman@boem.gov)



---

**From:** Rob Werner <[rob\\_werner@lcv.org](mailto:rob_werner@lcv.org)>

**Sent:** Monday, April 3, 2023 9:29 AM

**To:** Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer L <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>; Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>

**Subject:** Re: [EXTERNAL] Invite: Video for New Hampshire Energy Week

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Liz

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**Sent:** Wednesday, March 15, 2023 8:59 AM  
**To:** Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>  
**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Invite: Video for New Hampshire Energy Week

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League of Conservation Voters

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**From:** Rob Werner <rob\_werner@lcv.org>

**To:** "Foreman, Jennafer L" <Jennafer.Foreman@boem.gov>, "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>

**Cc:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Vang, Kathy" <Kathy.Vang@boem.gov>

**Subject:** Re: [EXTERNAL] Invite: Video for New Hampshire Energy Week

**Date:** Tue, 4 Apr 2023 22:57:35 +0000

**Inline-Images:** image001.jpg; image002.png

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Hi Jennafer -

Here is some info for the recording...

- Two options...(1) we can set up a time with Liz to record her comments with the communications firm that Clean Energy NH works with, or (2) you all could record her and provide the link for the program.
- It would be optimum if we had the recording by Friday, April 21st

I'm happy to connect with you to see what works best for the recording and talk through any other details. I can be reached on my cell phone at 603-674-9810.

Also, folks are very interested in OSW and what the future holds - Liz should feel free to take the time she needs to fully communicate her message, so she could record a video up in the 5-7 minute range.

Our team is so pleased that Liz can join us!

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
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---

**From:** Foreman, Jennafer L <Jennafer.Foreman@boem.gov>

**Sent:** Monday, April 3, 2023 11:20 AM

**To:** Rob Werner <rob\_werner@lcv.org>; Klein, Elizabeth A <Elizabeth.Klein@boem.gov>

**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Farmer, Isis U <Isis.Farmer@boem.gov>; Vang, Kathy <Kathy.Vang@boem.gov>

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**Jennafer Foreman (She/her/hers)**

Acting Deputy Chief of Staff  
Office of the Director  
Bureau of Ocean Energy Management

Cell 907-317-0799

Desk 907-334-5324

Email [Jennafer.foreman@boem.gov](mailto:Jennafer.foreman@boem.gov)



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**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer L [Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov) ; Vang, Kathy [Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)  
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**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

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(603) 674-9810

**From:** Alex Taurel <Alex\_Taurel@lcv.org>

**To:** "Alonso, Shantha R" <shantha\_alonso@ios.doi.gov>, "paniz\_rezaerod@ios.doi.gov" <paniz\_rezaerod@ios.doi.gov>, "Kate\_kelly@ios.doi.gov" <Kate\_kelly@ios.doi.gov>, "laura\_davis@ios.doi.gov" <laura\_davis@ios.doi.gov>, "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>, "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>, "melissa\_schwartz@ios.doi.gov" <melissa\_schwartz@ios.doi.gov>, (b) (6) <(b) (6)>

**Subject:** [EXTERNAL] LCV Statement in Support of DOI Oil and Gas Program Review

**Date:** Thu, 25 Mar 2021 21:18:31 +0000

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Congrats on the technology working seamlessly at today's forum

Alex  
202-669-1199

<https://www.lcv.org/article/lcv-statement-in-support-of-doi-oil-and-gas-program-review/>

**For Immediate Release**

March 25, 2021

**Contact:** Courtnee Connon, 727 744 4163, [courtnee\\_connon@lcv.org](mailto:courtnee_connon@lcv.org)

**LCV Statement in Support of DOI Oil and Gas Program Review**

**Washington, D.C.** — Following the Interior Department's oil and gas program forum today, the League of Conservation Voters (LCV) issued the following statement from **Conservation Program Director Alex Taurel**:

"For too long the oil and gas industry has reaped the benefits of a broken leasing system that is rigged in favor of oil industry executives and leaves our public lands, waters, and communities to pay the price. It is past time to take a hard look at this program that rebalances the priorities of our public lands and waters, makes them part of the solution to tackling the climate crisis, and expands access to nature and makes it more equitable.

"We are thrilled to see Secretary Haaland and the Interior Department leading this effort to reform the unjust oil and gas system on our public lands and waters. Following four years under the Trump administration where oil industry CEOs and lobbyists had their run of the place, we especially applaud this Interior Department for listening to the voices of Tribal communities, environmental justice advocates, conservationists and others advocating for charting a new path forward for our public lands and waters. As we undergo a necessary transition to clean energy, we have an obligation to ensure that workers and communities that powered our growth have the resources and tools to thrive in this new era."

\*\*\*

In case you missed it, Montana Conservation Voters Education Fund launched a [campaign](#) on Monday in support of the federal leasing review, highlighting potential benefits to taxpayers and need for greater access to public lands MCVEF contact Whitner Chase, [wchase@mtvoters.org](mailto:wchase@mtvoters.org), 406 254 1593

###

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] LCV Statement on Biden-Harris Administration Announcement of First-Ever Offshore Wind Lease Sale in the Pacific  
**Date:** Tue, 18 Oct 2022 23:36:41 +0000

---

Thank you!

Get [Outlook for iOS](#)

---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Tuesday, October 18, 2022 6:10:39 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] LCV Statement on Biden-Harris Administration Announcement of First-Ever Offshore Wind Lease Sale in the Pacific

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hey Marissa!

Forwarding you our statement on your exciting announcement today. Thank you for all you do!

-David

---

<https://www.lcv.org/article/lcv-statement-on-biden-harris-administration-announcement-of-first-ever-offshore-wind-lease-sale-in-the-pacific/>

**For Immediate Release**

October 18th, 2022

**Contact:** Kyra Madunich-Arevalo, [kmadunich@lcv.org](mailto:kmadunich@lcv.org), 909-767-9743

**LCV Statement on Biden-Harris Administration Announcement of First-Ever Offshore Wind Lease Sale in the Pacific**

**Washington D.C.** – In response to today’s announcement from the Department of the Interior that the Bureau of Ocean Energy Management (BOEM) will hold its first-ever offshore wind lease sale off the coast of California in December, the League of Conservation Voters (LCV) released the following statement from **Government Affairs Advocate David Shadburn**:

“We applaud the Biden-Harris administration for taking this big step towards securing a clean energy future. The Pacific Ocean has enormous potential to generate the wind energy needed for a just and clean energy transition away from dirty fossil fuels. Today’s announcement, the first-ever offshore wind lease sale on America’s west

coast, will jump start the west coast's opportunities to benefit from the clean energy economy by creating good paying union jobs and lowering energy costs for American families, all while combating the climate crisis. We are grateful to BOEM for engaging in a thoughtful stakeholder engagement and environmental review process and celebrate their hard work towards meeting President Biden's commitment to deploy 30 gigawatts of offshore wind by 2030 and leading us towards a clean energy future for all ”

###

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Alex Taurel <Alex\_Taurel@lcv.org>  
**Subject:** Re: [EXTERNAL] LCV Statement on Biden-Harris Administration Canceling Offshore Drilling Lease Sales  
**Date:** Thu, 12 May 2022 16:19:24 +0000

---

Thanks for sharing, Alex!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202 538 2415  
Marissa.Knodel@boem.gov

---

**From:** Alex Taurel <Alex\_Taurel@lcv.org>  
**Sent:** Thursday, May 12, 2022 12 14 PM  
**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>; Kelly, Katherine P <Kate\_Kelly@ios.doi.gov>; Daniel Davis, Laura E <laura\_daniel\_davis@ios.doi.gov>; Alonso, Shantha R <shantha\_alonso@ios.doi.gov>; Schwartz, Melissa A <melissa\_schwartz@ios.doi.gov>; Feldgus, Steven H <steve\_feldgus@ios.doi.gov>; (b) (6) (b) (6)

**Cc:** Tiernan Sittenfeld <tiernan\_sittenfeld@lcv.org>; Leah Donahey <ldonahey@lcv.org>  
**Subject:** [EXTERNAL] LCV Statement on Biden-Harris Administration Canceling Offshore Drilling Lease Sales

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Thanks for this great news!

Alex

<https://www.lcv.org/article/lcv-statement-on-biden-harris-administration-canceling-offshore-drilling-lease-sales/>

**For Immediate Release**

May 12, 2022

**Contact:** Courtney Connon, [courtnee\\_connon@lcv.org](mailto:courtnee_connon@lcv.org), 727-744-4163

**LCV Statement on Biden-Harris Administration Canceling Offshore Drilling Lease Sales**

**Washington, D.C.** – In response to the news that the Biden-Harris Administration has canceled offshore oil lease sales in Alaska and the Gulf of Mexico, the League of Conservation Voters (LCV) released the following statement from **Conservation Program Director Alex Taurel**:



“Offshore drilling is a dirty and dangerous business that threatens coastal communities, economies and marine life. Selling new offshore leases that won’t produce oil for years is not a solution to today’s gas prices, but it would lock in new infrastructure that is incompatible with our moral responsibility to leave a habitable planet for our kids. That’s why we’re excited to see the Biden Harris administration’s decision to cancel these lease sales. Our future must be powered by clean energy, not more offshore drilling.”

###

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** Alex Taurel <Alex\_Taurel@lcv.org>  
**Subject:** Re: [EXTERNAL] LCV Statement on Forthcoming DOI 5-Year Plan for Offshore Drilling  
**Date:** Thu, 19 May 2022 15:45:08 +0000

---

Thank you, Alex.

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Alex Taurel <Alex\_Taurel@lcv.org>  
**Sent:** Thursday, May 19, 2022 11:15 AM  
**To:** Lefton, Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>;  
steve.feldgus@ios.doi.gov <steve.feldgus@ios.doi.gov>; Daniel-Davis, Laura E <laura\_daniel-davis@ios.doi.gov>; Kelly,  
Katherine P <Kate.Kelly@ios.doi.gov>; Schwartz, Melissa A <melissa\_schwartz@ios.doi.gov>;  
(b) (6) [REDACTED] Alonso,  
Shantha R <shantha\_alonso@ios.doi.gov>  
**Cc:** Leah Donahey <ldonahey@lcv.org>; Tiernan Sittenfeld <tiernan\_sittenfeld@lcv.org>  
**Subject:** [EXTERNAL] LCV Statement on Forthcoming DOI 5-Year Plan for Offshore Drilling

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

FYI

Alex Taurel  
(He/Him/His)  
Conservation Program Director  
League of Conservation Voters  
[alex.taurel@lcv.org](mailto:alex.taurel@lcv.org)  
(c) 202-669-1199

<https://www.lcv.org/article/lcv-statement-on-doi-5-year-plan-for-offshore-drilling/>

**For Immediate Release**

May 19, 2022

**Contact:** Courtnee Connon, [courtnee\\_connon@lcv.org](mailto:courtnee_connon@lcv.org), 727 744 4163

### **LCV Statement on DOI 5 Year Plan for Offshore Drilling**

**Washington, D.C.** – Today, in response to the news that the Department of Interior will release the next draft of the 5-year offshore drilling plan, the League of Conservation Voters (LCV) released the following statement

from **Conservation Program Director Alex Taurel**

“We applaud Secretary Haaland and the Interior Department for recently canceling offshore drilling lease sales and for taking a deliberative and thoughtful approach to the forthcoming five year offshore drilling plan. Since leasing decisions won’t produce oil for years or decades, they have no impact on today’s gas prices. But new leases will keep us dependent on oil years or decades from now when our transition to cleaner energy sources must be far along so we meet our obligation to solve climate change and deliver pollution reductions to communities fighting for environmental justice. Offshore drilling is a dirty and dangerous business that threatens coastal communities, economies and marine life, which is why implementing solutions now to allow for a future powered by clean energy must be the way forward. We look forward to the release of the next draft of DOI’s 5-year plan for offshore drilling and are counting on this administration to finalize a plan that schedules no new lease sales.”

###

**From:** Alex Taurel <Alex\_Taurel@lcv.org>

**To:** "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>, Amanda. <Lefton@boem.gov>

**Subject:** [EXTERNAL] LCV Statement on the Interior Department's Process to Review the Oil and Gas Drilling System on Public Lands and Waters

**Date:** Tue, 9 Mar 2021 19:22:23 +0000

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Hi Team BOEM:

I'm sharing our statement.

Thanks,  
Alex  
202-669-1199

<https://www.lcv.org/article/lcv-statement-on-the-interior-departments-process-to-review-the-oil-and-gas-drilling-system-on-public-lands-and-waters/>

**For Immediate Release**

March 9, 2021

**Contact:** Courtnee Connon, [courtnee\\_connon@lcv.org](mailto:courtnee_connon@lcv.org), 727-744-4163

**LCV Statement on the Interior Department's Process to Review the Oil and Gas Drilling System on Public Lands and Waters**

**Washington, D.C.** -- In response to the Interior Department announcing steps it will take to review the oil and gas drilling system on our public lands and offshore waters, the League of Conservation Voters (LCV) issued the following statement from **Conservation Program Director Alex Taurel**:

“We welcome the Biden administration’s review of the federal oil and gas drilling system that has rewarded oil industry executives at the expense of our public lands and waters for decades. It’s long past time to pause and take a hard look at the broken leasing system that is enriching Big Oil while fleecing taxpayers, harming our majestic public lands and waters, worsening climate change, and polluting communities, most often communities of color and low-wealth communities. It comes as no surprise that oil industry CEOs are saying ‘the sky is falling’ at any attempt to cut their taxpayer subsidies or give the public more of a voice in how our public lands should be managed.

"The Biden administration is right to review this program and ensure it aligns with the best interests of taxpayers, our health, our public lands, and our climate. We must work with communities to urgently move away from volatile and declining boom-and-bust economies in ways that keep communities and families whole.”

*For more information on the broken leasing system and why a pause and top to bottom review are necessary, check out the facts we laid out [here](#)*

###

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**To:** David Shadburn <dshadburn@lcv.org>  
**Subject:** Re: [EXTERNAL] LCV and Affiliates Statement on Gulf of Maine announcement  
**Date:** Wed, 26 Apr 2023 21:39:04 +0000

---

Thanks so much, David!

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** David Shadburn <dshadburn@lcv.org>  
**Sent:** Wednesday, April 26, 2023 5:37 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] LCV and Affiliates Statement on Gulf of Maine announcement

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Hey Marissa,

Wanted to be sure to share with you all this statement from LCV and our affiliates in the New England for Offshore Wind Coalition (Maine Conservation Voters, Environmental League of Massachusetts, and Climate Action NH) thanking BOEM for your thoughtful approach to this announcement and looking forward to engaging in the process going forward. Thank you all for everything you're doing!

<https://www.lcv.org/media-center/lcv-and-northeast-affiliates-statement-on-critical-next-step-in-gulf-of-maine-offshore-wind-leasing/>

-David

--

David Shadburn (he/him)  
Senior Government Affairs Advocate, Climate Change and Clean Energy  
League of Conservation Voters  
Cell: (917) 742-3078

**From:** Leah Donahey <ldonahey@lcv.org>

**To:** "Kate\_Kelly@ios.doi.gov" <Kate\_Kelly@ios.doi.gov>, "laura\_daniel-davis@ios.doi.gov" <laura\_daniel-davis@ios.doi.gov>, "melissa\_schwartz@ios.doi.gov" <melissa\_schwartz@ios.doi.gov>, (b) (6)

"tommy\_beaudreau@ios.doi.gov" <tommy\_beaudreau@ios.doi.gov>, "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "amanda.lefton@boem.gov" <amanda.lefton@boem.gov>, "marissa.knodel@boem.gov" <marissa.knodel@boem.gov>, "Alonso, Shantha R" <shantha\_alonso@ios.doi.gov>, "Landa, Mackenzie (Kenzie)" <mackenzie\_landa@ios.doi.gov>

**Subject:** [EXTERNAL] LCV statement on 5YP

**Date:** Fri, 1 Jul 2022 21:48:12 +0000

**Inline-Images:** ~WRD2339.jpg; image001.png

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LCV wanted to share our statement with the release of the proposed oil and gas leasing program today Hope everyone is able to enjoy the long holiday weekend!

Best,  
Leah

<https://www.lcv.org/article/lcv-statement-on-interior-departments-draft-5-year-offshore-drilling-plan/>

**For Immediate Release**

July 1, 2022

**Contact:** Courtnee Connon, [courtnee\\_connon@lcv.org](mailto:courtnee_connon@lcv.org), [727-744-4163](tel:727-744-4163)

## **LCV Statement on Interior Department's Draft 5 Year Offshore Drilling Plan**

**Washington, D.C.** – Today, in response to the release of the Interior Department's Proposed Program for offshore drilling, the League of Conservation Voters (LCV) released the following statement from **Conservation Program Director Alex Taurel**:

“We are counting on President Biden to seize the historic opportunity to lead the way to an equitable and just clean energy future by finalizing an offshore drilling plan that includes no lease sales. Offshore drilling is a dangerous practice and poses huge risks to the health of communities, workers, wildlife, and the climate. Families in need of relief from high gas prices are being lied to by oil and gas companies – the reality is that new

offshore drilling leases take years before they produce any oil, so they do nothing to bring down the price of gas at the pump today. But new offshore drilling leases can lock us into long-term fossil fuel infrastructure for decades to come at a time when our transition to a clean energy future could not be more crucial. We will continue to fight to ensure there is no new leasing in the final Five Year Plan in line with what science and justice require.”

###

**Leah Donahey**

(she, her, hers)

*Federal Advocacy Campaigns Director*

*League of Conservation Voters*

740 15th St NW, Suite 700 | Washington, DC 20005

415-309-0455 | [ldonahey@lcv.org](mailto:ldonahey@lcv.org)



Our Earth Is Worth Fighting For



**From:** "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>  
**To:** Sue Mauger <sue@inletkeeper.org>, "Annatoyn, Travis J" <travis.annatoyn@sol.doi.gov>  
**Subject:** RE: [EXTERNAL] Lease Sale 258 meeting  
**Date:** Mon, 13 Feb 2023 14:10:33 +0000

---

Good morning,  
I'm glad you all had the chance to connect. I am similarly hoping I get the chance to get up to Alaska, since agreed – it's pretty great!  
Thanks so much,  
Liz

---

**From:** Sue Mauger <sue@inletkeeper.org>  
**Sent:** Friday, February 10, 2023 2:30 PM  
**To:** Annatoyn, Travis J <travis.annatoyn@sol.doi.gov>; Klein, Elizabeth A <Elizabeth.Klein@boem.gov>  
**Subject:** [EXTERNAL] Lease Sale 258 meeting

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Good afternoon Travis:

Thank you very much for our meeting this morning. Pam (Alaska Community Action on Toxics), Robert & Roberta (Kachemak Bay Conservation Society) and I appreciated the opportunity to talk with you and your team. Erik and Hannah (Earthjustice) and Julia (NRDC) will follow up with a letter further outlining thoughts about the public's best interest.

Director Klein - Thank you again for providing the opportunity to meet with your counsel. I hope we'll have the chance to host you here in Alaska when you make it up for a visit one day. It's pretty great!

All the best, Sue

**Sue Mauger**  
*Science & Executive Director*

Cook Inletkeeper  
3734 Ben Walters Lane  
Homer, AK 99603  
(c) 907.399.2070  
[sue@inletkeeper.org](mailto:sue@inletkeeper.org)  
[www.inletkeeper.org](http://www.inletkeeper.org)

*Home is where the habitat is. Please support our work to protect fish habitat - [donate here.](#)*

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Kendall Dix <kdix@taproot.earth>

**Subject:** Automatic reply: [EXTERNAL] Meeting to discuss GoM proposed sale notice

**Date:** Fri, 2 Jun 2023 14:17:09 +0000

---

Hello!

I am out of the office June 2-4 with limited e-mail access. In case of an emergency, please call 202-538-2415.

Peace,

Marissa Knodel

**From:** Kendall Dix <kdix@taproot.earth>

**To:** "Muse, Sandy C" <Sandy.Muse@boem.gov>

**Cc:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

**Date:** Tue, 6 Jun 2023 13:11:33 -0400

**Inline-Images:** ~WRD0000.jpg

---

Oops, yes of course:

Scott Eustis <[scott@healthygulf.org](mailto:scott@healthygulf.org)>

Leo Lindner <[leo@truetransition.org](mailto:leo@truetransition.org)>

Megan Milliken <(b) (6)>

Jackson Voss <[jackson@all4energy.org](mailto:jackson@all4energy.org)>

"Shahyd, Khalil" <[kshahyd@nrdc.org](mailto:kshahyd@nrdc.org)>

On Tue, Jun 6, 2023 at 1:09 PM Muse, Sandy C <[Sandy.Muse@boem.gov](mailto:Sandy.Muse@boem.gov)> wrote:

God Afternoon Sir,

Thank you for that information Can you please provide me with the participants email addresses? Thank you.

**Sandy Muse**

Executive Assistant

Office of the Director

Bureau of Ocean Energy Management

U S Department of the Interior

---

**From:** Kendall Dix <kdix@taproot.earth>

**Sent:** Tuesday, June 6, 2023 1:01 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Cc:** Muse, Sandy C <[Sandy.Muse@boem.gov](mailto:Sandy.Muse@boem.gov)>

**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

Hello and thanks for your help, Sandy!

## Participants

Kendall Dix, Taproot Earth

Megan Milliken Biven, True Transition

Leo Lindner, True Transition

Jackson Voss, Alliance for Affordable Energy

Scott Eustis, Healthy Gulf

Khalil Shahyd, NRDC

## Agenda:

Introductions 10 minutes

Overview of community and worker priorities for Gulf offshore wind - 5 minutes

Discussion of Gulf of Mexico proposed wind lease sale notice 10 minutes

Other opportunities to collaborate with DOI/BOEM/BSEE and next steps - 5 minutes

Thanks,

Kendall

On Tue, Jun 6, 2023 at 12:16 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hey Kendall,

I am looping in Sandy Muse, who is helping me with scheduling the meeting and will be sending a calendar invite with a Microsoft Teams link.

Can you please send her the list of participants, their affiliations, and an agenda for the calendar invite?

Thanks!

Peace,

Marissa Knodel (she/her/they)

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, June 5, 2023 4:15 PM  
**To:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

I will confirm and ask!

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---

**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Sent:** Monday, June 5, 2023 3:42:45 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

Monday at 1:30 would be perfect. Should I create the zoom or do you all want to use yours?

On Mon, Jun 5, 2023 at 12:01 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hey Kendall,

Do any of these days and times work?

Mon, 6/12: 10-10:30 AM, 1:30-2 PM  
Tue, 6/13 1 2 PM

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.5 8.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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---

**From:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>  
**Sent:** Friday, June 2, 2023 10:16 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

OK, no problem. The following week is great too.

On Thu, Jun 1, 2023 at 11:26 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote

Hey Kendall,

Unfortunately, that day and time no longer work for the Deputy Secretary and Assistant Secretary. I will send alternative days and times for the following week shortly.

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Thursday, June 1, 2023 10:39 AM

**To:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>

**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

Great!

I'll loop back with the schedulers and assume that we will send a calendar invite with a link that you can forward.

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Kendall Dix [kdix@taproot earth](mailto:kdix@taproot earth)

**Sent:** Thursday, June 1, 2023 10:37 AM

**To:** Knodel, Marissa S [Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

Ok, let's confirm the 6th at 4:00 pm. Looking forward to it!

On Thu, Jun 1, 2023 at 9:36 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hey Kendall,

Just re-upping this as schedules fill in quickly. Thanks!

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Tuesday, May 30, 2023 10:01 AM

**To:** Kendall Dix <[kdix@taproot.earth](mailto:kdix@taproot.earth)>

**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

Hello Kendall,

Thank you for your patience, it's hard to coordinate the schedules of Department leadership, but fortunately for you and your group, there is a lot of interest in the meeting from the Deputy Secretary Beaudreau, Principal Deputy Assistant Secretary of Land and Minerals Management Laura Daniel-Davis, and BOEM Director Liz Klein.

Everyone is available June 6, 4:00-4:30 p.m. ET.

If that doesn't work, the back-up day and time is June 7, 10:30-11:00 a.m. ET.

Does that work for your group?

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

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**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Wednesday, May 10, 2023 7:14 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Meeting to discuss GoM proposed sale notice

Yes, virtual would be best for us. Thank you so much!!

On Tue, May 9, 2023 at 10:22 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote:

Hey Kendall,

Great to hear from you! I will share this invitation with Director Klein and our scheduling team and follow-up.

I assume this will be virtual?

Peace,

Marissa Knodel

Senior Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

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**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Monday, May 8, 2023 1:26 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Meeting to discuss GoM proposed sale notice

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hello, Marissa. Hope you're doing well! I'm sure you all are as busy as ever, but I'm writing to ask if our Gulf wind working group could meet with your office to discuss our recommendations for the proposed sale notice in the Gulf.

This is a group that started meeting last year to gather organizations focused on the equity and justice aspects of offshore wind development. The organizations include True Transition (focused on making sure the energy transition accounts for the needs of oil and gas workers), Alliance for Affordable Energy (utility and environmental justice), Healthy Gulf (wetlands and environmental justice), BlueGreen Alliance, and NRDC's equity office. We have also been reaching out to HBCUs and other groups in Louisiana and Texas who are working on labor, EJ, and workforce development issues.

Would it be possible for us to schedule something with the relevant parties at BOEM to start building some ongoing lines of communication with your office and discuss the proposed sale notice? We of course would love to meet with Director Klein and Deputy Secretary Boudreau if possible but are aware of how in-demand their time is.

Thanks,  
Kendall

**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/they

[Redacted]

\_\_\_\_\_

[Redacted]

[Redacted] [\[434\] 442-0179](tel:434-442-0179)

[Redacted] [kdix@taproot.earth](mailto:kdix@taproot.earth)

[taproot.earth](https://taproot.earth)

**Kendall Dix**

National Policy Director

Taproot Earth

he/they

---

[\(434\) 442-0179](tel:4344420179)

[kdix@taproot.earth](mailto:kdix@taproot.earth)

[taproot.earth](https://taproot.earth)

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "megan.carr@boem.gov" <megan.carr@boem.gov>

**Subject:** [EXTERNAL] Moment to connect?

**Date:** Tue, 11 Apr 2023 20:12:34 +0000

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Megan,

Following up on the OIRA meeting. Would you have a brief moment to connect by phone?

Thanks, Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

**D** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

**From:** "Cate, Alicia" <acate@oceana.org>

**To:** "docexecsec@doc.gov" <docexecsec@doc.gov>, "publicaffairs@doc.gov" <publicaffairs@doc.gov>, (b) (6), (b) (6), "feedback@ios.doi.gov" <feedback@ios.doi.gov>, "Interior\_Press@ios.doi.gov" <Interior\_Press@ios.doi.gov>

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**Subject:** [EXTERNAL] Oceana - Additional Evidence of Failure to Effectively Enforce Environmental Laws Mentioned in USMCA Art. 24.7 Notice Letter

**Date:** Wed, 18 Aug 2021 17:18:03 +0000

**Importance:** High

**Attachments:** Oceana\_Comment\_Letter\_-\_ALWTRP\_Proposed\_Risk\_Reduction\_Rule\_with\_S.Brillant\_CV\_(3.1.2021).pdf; FINAL\_-\_Oceana\_-\_Draft\_Biological\_Opinion\_Comment\_Letter\_(2.19.21).pdf; Oceana\_and\_IFAW\_Comment\_Letter\_-\_Deny\_5\_Proposed\_IHAs\_(07-21-2017).pdf; PARS\_-\_Northern\_NY\_Bight\_-\_Notice\_of\_Availabilty\_of\_Draft\_Report,\_86\_FR\_37339\_(July\_15,\_2021).pdf; Dkt\_124-1\_PI\_Memo.pdf; Oceana\_Comment\_on\_Vessel\_Speed\_Rule\_Assessment\_(03-26-2021).pdf

**Inline-Images:** image001.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Secretary Raimondo, Secretary Mayorkas, and Secretary Haaland as well as copied federal agency officials:

As promised in the prior email and as mentioned in Oceana's notice letter sent moments ago, please find additional evidence of the U.S. Government's failure to effectively enforce environmental laws and regulations to protect North Atlantic Right Whales in the attachments and linked document below, which include:

- *Oceana, Comment Letter on Proposed Risk Reduction Rule and Draft EIS (Mar 1, 2021);*
- *Oceana, Comment Letter on Draft BiOp (Feb 19, 2021);*

- Oceana and IFAW, *Comment Letter on Five Proposed Incidental Harassment Authorizations for Seismic Airgun Blasting* (July 21, 2017);
- Oceana, *Comment Letter on Port Access Route Study Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov 10, 2020);
- *South Carolina Coastal Conservation League et al v National Marine Fisheries Service*, Memorandum in Support of Plaintiff’s Motion for a Preliminary Injunction (Feb 20, 2019);
- Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar 26, 2021); and
- Oceana, *Speeding Toward Extinction Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw\\_21\\_0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw_21_0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

Between now and September 30, we welcome virtual meetings with you and/or your staff to discuss this matter in greater detail

Please direct all correspondence to Whitney Webber at [wwebber@oceana.org](mailto:wwebber@oceana.org).

Thank you for your serious consideration of this matter.

All the best,  
Alicia

PS Please forward this email and the attachments as needed to ensure it is received by all addressees and any other relevant federal agency officials who should be made aware of this correspondence Thank you!

**Alicia Cate | Senior Counsel**



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File Number: 3001285-00003

March 1, 2021

**John Rousakis**  
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Via Federal E-rulemaking Portal: <https://www.regulations.gov/document/NOAA-NMFS-2020-0031-0006>

Attention:

Colleen Coogan, Marine Mammal & Sea Turtle Branch Chief

Email: Colleen.Coogan@noaa.gov

Phone: 978-281-9181

National Marine Fisheries Service  
Greater Atlantic Regional Fisheries Office  
Protected Resources  
55 Great Republic Drive  
Gloucester, MA 01930  
Phone: 978-281-9300

**Re: Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery; 85 Fed. Reg. 86,878 (December 31, 2020); Dkt. No. 201221-0351; RIN 0649-BJ09 and the related Draft Environmental Impact Statement**

Dear Colleen Coogan:

Our firm represents Oceana, Inc. in connection with its efforts to protect North Atlantic right whales. On behalf of Oceana, Inc., we submit the enclosed comments on the Proposed Risk Reduction Rule for Entanglement in Fixed Fishing Gear in the Waters of the U.S. Northeast (86 Fed. Reg. 86,878; Dkt. No. 201221-0351; RIN 0649-BJ09) and the related Draft Environmental Impact Statement.

Sincerely,

*/s/ John Rousakis*

John Rousakis



March 1, 2021

Via Federal E-rulemaking Portal: <https://www.regulations.gov/document/NOAA-NMFS-2020-0031-0006>

Attention:

Colleen Coogan, Marine Mammal & Sea Turtle Branch Chief

Email: [Colleen.Coogan@noaa.gov](mailto:Colleen.Coogan@noaa.gov)

Phone: 978-281-9181

National Marine Fisheries Service

Greater Atlantic Regional Fisheries Office

Protected Resources

55 Great Republic Drive

Gloucester, MA 01930

Phone: 978-281-9300

**Re: Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery; 85 Fed. Reg. 86,878 (December 31, 2020); Dkt. No. 201221-0351; RIN 0649-BJ09 and the related Draft Environmental Impact Statement<sup>1</sup>**

Dear Colleen Coogan:

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the U.S. Atlantic seaboard. Oceana has been engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species for more than 15 years, with a particular interest in effective bycatch minimization and reducing, if not eliminating, fishing gear entanglement-related death, injury, and harm to protected species, including the critically endangered North Atlantic right whale (NARW).

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<sup>1</sup> National Marine Fisheries Service, *Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility analysis for Amending the Atlantic Large whale Take Reduction Plan: Risk Reduction Rule* (November 2020 Draft) [hereinafter, the "Draft EIS"].

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>2</sup> The two main human-caused threats to NARWS – vessel strikes and fishing entanglement – are the main source of the decline, and possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related whale behavior changes.<sup>3</sup> In light of Oceana's interest in protecting NARWs from entanglement in fishing gear, Oceana appreciates the opportunity to provide comments on the North Atlantic Right Whale Proposed Risk Reduction Rule for Fishing Entanglement in Fixed Fishing Gear in the Waters of the U.S. Northeast (Proposed Risk Reduction Rule) and the related Draft Environmental Impact Statement (Draft EIS). After careful review of the Proposed Risk Reduction Rule and the Draft EIS, Oceana does not believe that the measures in the Proposed Risk Reduction Rule are sufficient to save NARWs from extinction, nor do the measures meet the legal requirements of the Marine Mammal Protection Act (MMPA) or the Endangered Species Act (ESA). In addition, the related Draft EIS fails to comply with the National Environmental Policy Act (NEPA). And, both documents appear to contain "arbitrary and capricious" elements in violation of the Administrative Procedure Act (APA). Moreover, the Proposed Risk Reduction Rule must be designed to reduce takes to levels lower than the PBR, regardless of economic impacts.<sup>4</sup>

In order to correct the inadequacies of the Proposed Risk Reduction Rule and the Draft EIS, Oceana urges the Fisheries Service to take the following actions:

- The Fisheries Service should significantly revise the Proposed Risk Reduction Rule and Draft EIS to aim for a more ambitious risk reduction target and to incorporate measures that will adequately recover the NARW population, including the use of proven management tools such as dynamic area management, gear and vertical line reduction, geographic and temporal expansion of static, time-area management, broader use of Automatic Identification Systems (AIS), better fishery monitoring and reporting, and incentives to promote testing and adoption of ropeless gear;
- If the Fisheries Services does not significantly revise the Proposed Risk Reduction Rule and Draft EIS as detailed above, the agency should withdraw the Proposed Risk Reduction Rule and reformulate a stronger rule and Draft EIS by assessing a broader range of more effective alternative measures to protect NARWs; and
- If the Fisheries Service withdraws the Proposed Risk Reduction Rule and Draft EIS, while a new, stronger rule is being developed, the agency should immediately implement interim emergency management measures that immediately reduce mortality and serious injury below the Potential Biological

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<sup>2</sup> *Id.* at 2-26.

<sup>3</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (Sept. 18, 2018) at 7, [https://archive.fisheries.noaa.gov/garfo/protected/whaletrp/trt/meetings/September%202018/narw\\_brief\\_for\\_alwtrt\\_09\\_18\\_18.pdf](https://archive.fisheries.noaa.gov/garfo/protected/whaletrp/trt/meetings/September%202018/narw_brief_for_alwtrt_09_18_18.pdf).

<sup>4</sup> *Id.*

Removal (PBR) level using authority under the MMPA, ESA, and the Magnuson-Stevens Fisheries Conservation and Management Act (MSA).

## LEGAL BACKGROUND

### I. MARINE MAMMAL PROTECTION ACT

#### A. Goals of the Statute

Since 1972, the MMPA has afforded special protection to marine mammal species from a wide range of threats. To protect marine mammals, such as NARWs, from human activities, the MMPA establishes a moratorium on the “take” of marine mammals.<sup>5</sup> The MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>6</sup> In limited circumstances, the Fisheries Service,<sup>7</sup> may grant exceptions to the take moratorium, such as for the incidental, but not intentional, taking of marine mammals for certain activities, which is done via an incidental take authorization.<sup>8</sup>

At the heart of the MMPA's science-driven approach to conservation, management and recovery of marine mammals are the goals of maintaining the optimum sustainable population and ecosystem function of marine mammal stocks, restoring depleted stocks to their optimum sustainable population levels, and reducing mortality and serious injury (bycatch) of marine mammals incidental to commercial fishing operations to insignificant levels. To achieve these overarching goals, the MMPA prohibits taking of marine mammals, with certain exceptions, including for commercial fisheries.<sup>9</sup> Ultimately, the MMPA mandates a Zero Mortality Rate Goal, *i.e.*, marine mammal mortality in commercial fisheries should achieve a zero mortality and serious injury rate to a level approaching zero, by April 2001.<sup>10</sup> Clearly, the Zero Mortality Rate Goal for marine mammal “take” in commercial fisheries has not been met, indicating the Fisheries Service's failure to effectively implement and enforce this bedrock environmental law.

The MMPA requires fisheries to achieve an interim goal of PBR.<sup>11</sup> The PBR is calculated based on the dynamics of a species or mammal stock to be “(t)he maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while

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<sup>5</sup> 16 U.S.C. §§ 1361(2), 1371.

<sup>6</sup> 16 U.S.C. § 1362(13).

<sup>7</sup> The Fish and Wildlife Service, within the Department of the Interior, is responsible for dugongs, manatees, polar bears, sea otters and walrus. *See* U.S. Fish and Wildlife Service, *Marine Mammals*, <https://www.fws.gov/international/animals/marine-mammals.html> (last visited Feb. 27, 2021).

<sup>8</sup> 16 U.S.C. § 1371(a); NOAA Fisheries, *Incidental Take Authorizations Under the Marine Mammal Protection Act*, <https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act> (June 24, 2020) (listing oil and gas exploration as an activity for which incidental take authorizations have been issued).

<sup>9</sup> 16 U.S.C. § 1371(a).

<sup>10</sup> 16 U.S.C. § 1387(b).

<sup>11</sup> *Id.* § 1387(f).

allowing that stock to reach or maintain its optimum sustainable population.”<sup>12</sup> This requirement is the guiding metric of success for recovering marine mammal species and for incidental fishing mortality reductions. Any “take” over PBR is unauthorized. When “take” exceeds PBR, a Take Reduction Plan (TRP) (discussed below) must be developed. In addition, if a commercial fisher has not registered their vessel and received an incidental take authorization (discussed below), then any “take” of a marine mammal species is subject to a substantial civil fine and a knowing violation is subject to criminal penalties, including imprisonment (civil fines of up to \$10,000 per violation and criminal penalties of up to \$20,000 per violation and imprisonment for up to a year).<sup>13</sup>

In the 2018 Stock Assessment Report for NARWs, PBR was calculated to be 0.9 mortalities or incidents of serious injury per year.<sup>14</sup> The 2019 Stock Assessment Report for NARWs calculates PBR at 0.8.<sup>15</sup> The draft 2020 Stock Assessment Report similarly calculates PBR at 0.8.<sup>16</sup> However, as the Fisheries Service has recently acknowledged, the population of NARWs must be revised downward – from 412 to 366 as of January 2019 – in part because “the impact of the ongoing Unusual Mortality Event (UME) – declared in 2017 and involving 42 individuals [as of October 2020] – was worse than previously thought.”<sup>17</sup> Between October 2020 and the end of February 2021, three more NARWs have died and another three have been seriously injured.<sup>18</sup> As a result of the increased mortality and serious injury to the species, PBR will likely be even lower in the 2021 Stock Assessment Report.<sup>19</sup> In other words, *less than one* NARW may be killed or seriously injured by human actions each year for the species to achieve optimum sustainable population.

## **B. The MMPA’s “Best Scientific Evidence Available” Requirement**

The MMPA was the first congressional act to include a “best available science” mandate.<sup>20</sup> The statute requires use of “best scientific evidence available” in determining any

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<sup>12</sup> 16 U.S.C. § 1362(20).

<sup>13</sup> 16 U.S.C. § 1375.

<sup>14</sup> 2018 Marine Mammal Stock Assessment Reports, 84 Fed. Reg. 28,489, 28,496 (June 19, 2019).

<sup>15</sup> NOAA Fisheries, *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports – 2019, North Atlantic Right Whale* (Apr. 2020) at 22, [https://media.fisheries.noaa.gov/dam-migration/2019\\_sars\\_atlantic\\_northatlanticrightwhale.pdf](https://media.fisheries.noaa.gov/dam-migration/2019_sars_atlantic_northatlanticrightwhale.pdf).

<sup>16</sup> NOAA Fisheries, *DRAFT - U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports – 2020, North Atlantic Right Whale* (Aug. 2020) at 51, <https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-12/Draft%202020%20Atlantic-Gulf-marine%20mammal%20stock%20assessment%20reports.pdf?null>.

<sup>17</sup> Email from Colleen Coogan to ALWTRT Members and Alternates (Oct. 26, 2020).

<sup>18</sup> NOAA Fisheries, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (Mar. 1, 2021); NOAA Fisheries, *Adult North Atlantic Right Whale Found Dead off South Carolina*, <https://www.fisheries.noaa.gov/feature-story/adult-north-atlantic-right-whale-found-dead-south-carolina> (Feb. 28, 2021).

<sup>19</sup> Email from Colleen Coogan to ALWTRT Members and Alternates (Oct. 26, 2020).

<sup>20</sup> 16 U.S.C. §§ 1361 et seq. (mandating the use of “best scientific evidence” as well as the “best scientific information available” in several provisions, including the moratorium provision at 16 U.S.C. § 1371).

waiver of the moratorium on the taking and importation of marine mammals and marine mammal products.<sup>21</sup> MMPA implementing regulations also require the agency to use the “best scientific information available.”<sup>22</sup> The Fisheries Service must therefore comply with the “best available science” mandate in analyzing incidental takes of marine mammals.

### C. Take Reduction Teams/Take Reduction Plans

To achieve the goals of the MMPA, the Fisheries Service convenes Take Reduction Teams (TRTs) - interdisciplinary groups tasked with the development of Take Reduction Plans (TRPs).<sup>23</sup> TRT members are selected for their expertise regarding the conservation and biology of the marine mammal species or expertise regarding the fishing practices that result in the take of such species. TRTs are assembled to respond to specific needs and reconvene when the conservation needs of an MMPA-protected species necessitate changes to regulations.

The overarching goal of each TRP is “to reduce, within 5 years of [the plan’s] implementation, the incidental mortality or serious injury of marine mammals...to insignificant levels approaching a zero mortality and serious injury rate, taking into account the economics of the fishery, the availability of existing technology, and existing State or regional fishery management plans.”<sup>24</sup> This so-called Zero Mortality Rate Goal is the ultimate goal of marine mammal conservation in each TRP in the United States, with achievement of PBR acting as an intermediate step towards recovery.<sup>25</sup>

Under the MMPA, the Fisheries Service may “tak[e] into account the economics of the fishery” when designing a TRP, but the long-term goal of the plan must be to reduce mortality and injury “to insignificant levels approaching a zero mortality and serious injury rate.”<sup>26</sup> In the short term, the rule must be designed to reduce takes to levels lower than the PBR, regardless of economic impacts.<sup>27</sup>

To accomplish this important task, each TRP contains a review of recent stock assessments and estimates of the total number of marine mammals being taken annually by species and by fishery. The TRP then explores recommended regulatory and voluntary measures and the expected percentage of the required reduction of mortality and serious injury that will be achieved by each measure. The TRP must also include a discussion of alternate management measures considered and reviewed by the TRT and a rationale for their rejection. Finally, a TRP

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<sup>21</sup> 16 U.S.C. § 1371(a)(3)(A).

<sup>22</sup> 50 C.F.R. § 216.105(c) (“[R]egulations will be established based on the best available information.”).

<sup>23</sup> NOAA Fisheries, *Marine Mammal Take Reduction Plans and Teams*, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams> (Nov. 30, 2020).

<sup>24</sup> 16 U.S.C. § 1387(f)(2).

<sup>25</sup> 16 U.S.C. § 1387(b).

<sup>26</sup> 16 U.S.C. § 1387(f)(2).

<sup>27</sup> *Id.*

must include monitoring plans to determine the success of each measure and a timeline for achieving specific objectives of the TRP.<sup>28</sup>

The Atlantic Large Whale Take Reduction Team (ALWTRT) has been in effect since 1996.<sup>29</sup> The Atlantic Large Whale Take Reduction Plan (ALWTRP) was first implemented in 1997.<sup>30</sup> The ALWTRT has advised the Fisheries Service on more than a dozen rules and regulations since then to modify fisheries managed under the ALWTRP.<sup>31</sup> Recent amendments to the ALWTRP include the December 31, 2020 Proposed Risk Reduction Rule related to two of the fisheries – the lobster and Jonah crab fisheries.

#### **D. ESA Section 7 Consultation and MMPA Section 101(a)(5) Requirements**

ESA-listed marine mammal stocks fall under the jurisdiction of both the MMPA and ESA, and the Fisheries Service has a concurrent responsibility to satisfy the requirements of both laws. The MMPA and the ESA work in tandem to protect endangered marine mammals. Indeed, Congress “intended that the decision processes under the [MMPA and ESA] be coordinated and integrated to the maximum extent possible.”<sup>32</sup> Congress manifested this intention by incorporating the MMPA into the ESA’s incidental take statement requirement.<sup>33</sup> Specifically, Section 7(b)(4)(C) of the ESA provides that when the action under consultation will incidentally take *endangered* marine mammal species, the Service must ensure that the taking “is authorized pursuant to section 101(a)(5) of the Marine Mammal Protection Act.”<sup>34</sup>

As part of the Marine Mammal Authorization Program, the Fisheries Service maintains the MMPA List of Fisheries that interact with marine mammals, which is updated annually. The list includes three categories. Category I lists fisheries that have frequent incidental mortality and serious injury for a marine mammal species (i.e., greater than or equal to 50% of PBR). Category II lists fisheries with occasional incidental mortality and serious injury (i.e., greater than 1% but less than 50% PBR). Category III lists fisheries with a remote likelihood of no known incidental mortality or serious injury (less than or equal to 1% of PBR).<sup>35</sup> Effective as of February 16, 2021, the Fisheries Service’s MMPA List of Fisheries includes both the lobster and Jonah crab fisheries as Category II fisheries that have “occasional interactions” with large whales. While the NARW is listed as a marine mammal with which the lobster fishery interacts, the species is not

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<sup>28</sup> NOAA Fisheries, *Marine Mammal Take Reduction Plans and Teams*, (Nov. 30, 2020).

<sup>29</sup> NOAA Fisheries, *Atlantic Large Whale Take Reduction Team Members*, <https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/atlantic-large-whale-take-reduction-team-members> (Feb. 26, 2021).

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> See 132 Cong. Rec. H10453-02 (1986) (stating the 1986 amendments to the ESA “reflect the changes to the MMPA and ... clarify the relationship between the two statutes. It is intended that the decision processes under the involved statutes be coordinated and integrated to the maximum extent practicable.”).

<sup>33</sup> 16 U.S.C. § 1536(b)(4).

<sup>34</sup> *Id.*

<sup>35</sup> 16 U.S.C. § 1387(c).

listed for the Jonah crab fishery.<sup>36</sup> Fisheries listed in Category I or II must apply for and receive a permit from the Fisheries Service, and U.S. flagged fishing vessels must register with the Fisheries Service and display a valid authorization decal.<sup>37</sup>

Authorization of incidental take of *endangered* marine mammals, such as the NARW, for commercial fisheries with frequent (MMPA Category I)<sup>38</sup> or occasional (MMPA Category II)<sup>39</sup> incidental mortality or serious injury requires additional steps.<sup>40</sup> The Fisheries Service must first publish in the Federal Register a separate list of fisheries allowed to engage in such takes (“MMPA 101(a)(5)(E) list”).<sup>41</sup> To add a fishery to the MMPA 101(a)(5)(E) list, the Fisheries Service must make certain determinations. Specifically, for every endangered marine mammal for which the Fisheries Service plans to issue an incidental take authorization, the Fisheries Service must determine:

- the incidental mortality and serious injury from the fishery will have a “negligible impact” on the species;<sup>42</sup>
- a recovery plan has been developed or is being developed for the species;<sup>43</sup> and
- a monitoring program and a TRP is or will be in place for the species.<sup>44</sup>

After making this determination for every endangered marine mammal that a fishery takes, the Fisheries Service can add the fishery to the MMPA 101(a)(5)(E) list.<sup>45</sup> Only upon the publication of the MMPA 101(a)(5)(E) list are vessels operating in these fisheries eligible to receive incidental take authorizations.<sup>46</sup> These incidental take authorizations are valid for up to three

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<sup>36</sup> See NOAA Fisheries, *List of Fisheries Summary Tables*, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/list-fisheries-summary-tables> (Feb. 5, 2021).

<sup>37</sup> 16 U.S.C. § 1387(c).

<sup>38</sup> MMPA Category I fisheries are fisheries that have frequent incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>39</sup> MMPA Category II fisheries are fisheries that have occasional incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>40</sup> 16 U.S.C. § 1387(a)(2) (noting that “[i]n the case of the incidental taking of marine mammals from species or stocks designated under this [Act] as depleted on the basis of their listing as threatened species or endangered species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), both this section and section 1371(a)(5)(E) of this Act shall apply” (emphasis added)).

<sup>41</sup> 16 U.S.C. § 1371(a)(5)(E). Please note that this is a different List of Fisheries than the one for non-endangered marine mammals called the “Marine Mammal Authorization Program.” *See* 16 U.S.C. § 1382(a).

<sup>42</sup> MMPA regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 216.103. For the latest guidance of “negligible impact” determinations in the context of MMPA Section 101(a)(5)(E), *see* National Marine Fisheries Service, *Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E)* (June 17, 2020), <https://media.fisheries.noaa.gov/dam-migration/02-204-02.pdf>.

<sup>43</sup> The MMPA does not specify a timeframe for when the recovery plan must be developed. There is also no case law on point for this specific issue.

<sup>44</sup> 16 U.S.C. § 1371(a)(5)(E)(i).

<sup>45</sup> 16 U.S.C. § 1371(a)(5)(E)(ii).

<sup>46</sup> *Id.*

years.<sup>47</sup> Any incidental take of marine mammals by commercial fisheries, therefore, is illegal without the publication of an MMPA 101(a)(5)(E) list and the accompanying determinations described above. The Fisheries Service is delinquent in its duty to publish this MMPA 101(a)(5)(E) list and to issue incidental take authorizations as required by the statute.

The publication of the MMPA 101(a)(5)(E) list, however, does not conclude the Fisheries Service's duty. Since the Fisheries Service is authorizing take of *endangered* marine mammals, the ESA also applies. The Fisheries Service must publish a Biological Opinion (BiOp) with an Incidental Take Statement (ITS).<sup>48</sup> Moreover, that ITS must include terms and conditions that detail how the authorized take will comply with the requirements of the MMPA.<sup>49</sup> Thus, for *endangered* marine mammals, the ITS must contain terms and conditions to ensure that any authorized take has only a "negligible impact" on the species.<sup>50</sup>

Even after completing these steps, the Fisheries Service's duty is not discharged. If the Fisheries Service determines that the incidental mortality or serious injury in a fishery has more than a "negligible impact" on an endangered species, then the agency must issue emergency regulations to protect the species.<sup>51</sup>

#### **E. Emergency Action under the MMPA**

If incidental mortality and serious injury during a commercial fishing season is having or is likely to have an immediate and significant adverse impact on a stock or species, and a TRP is being developed, then the Fisheries Service shall prescribe emergency regulations to reduce incidental mortality and serious injury in the fishery and approve and implement on an expedited basis, a plan to address adverse impacts.<sup>52</sup> The MMPA *requires* the Fisheries Service to act to protect an endangered species when the level of incidental mortality or serious injury from an authorized commercial fishery has resulted, or is likely to result in an impact that is "more than negligible."<sup>53</sup>

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<sup>47</sup> *Id.*; 61 Fed. Reg. 64,500 (Dec 5, 1996).

<sup>48</sup> 16 U.S.C. § 1536(c).

<sup>49</sup> 16 U.S.C. § 1536(b)(4).

<sup>50</sup> *Id.*; 16 U.S.C § 1371(a)(5).

<sup>51</sup> 16 U.S.C § 1371(a)(5)(E)(iii).

<sup>52</sup> 16 U.S.C. § 1387(g). While the MMPA indicates that the Secretary of Commerce shall issue emergency regulations, the Secretary delegates authority to the National Marine Fisheries Service to manage marine mammals such as the NARW. The Fisheries Service can and has issued emergency regulations in the past to protect NARWs. See NOAA Fisheries, *North Atlantic Right Whale Protection; Emergency Regulations*, 62 Fed. Reg. 16,108 (April 4, 1997).

<sup>53</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii), 1387(g).



## II. ENDANGERED SPECIES ACT

### A. Goals of the Statute

The ESA was enacted in 1973 to “halt and reverse the trend toward species extinction, whatever the cost.”<sup>54</sup> The statute declares it “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of [this] purpose.”<sup>55</sup> To meet this goal, Section 9 of the ESA prohibits the “take” of all endangered species, including NARWs, unless specifically authorized.<sup>56</sup> “Take” is defined under the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect” a protected species.<sup>57</sup> Exceptions to the ESA prohibition on “take” are only allowed if statutory requirements are met, including via the Section 7 consultations process.

### B. ESA Section 7 Consultation

Section 7 of the ESA requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency, including the authorization of fisheries, is not likely to jeopardize the continued existence of ESA-listed species or destroy or adversely modify critical habitat.<sup>58</sup> ESA Section 7 consultation ends in the publication of a BiOp that not only includes a determination of whether the activity will jeopardize the continued existence of the species, but also identifies measures to mitigate the effects of the activity on the species.<sup>59</sup>

The Fisheries Service is required to use “the best scientific and commercial data available” in analyzing impacts and formulating the BiOp.<sup>60</sup> For example, a BiOp must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>61</sup>

“Jeopardize” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”<sup>62</sup> When developing its jeopardy determination, “the consulting agency evaluates the current status of the listed species or critical habitat, the effects of the action, and cumulative effects.”<sup>63</sup>

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<sup>54</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>55</sup> 16 U.S.C. § 1531(c)(1).

<sup>56</sup> 16 U.S.C. § 1538(a)(1)(B).

<sup>57</sup> 16 U.S.C. § 1532(19).

<sup>58</sup> 16 U.S.C. § 1536(a)(2).

<sup>59</sup> *Id.* § 1536(c).

<sup>60</sup> 50 C.F.R. § 402.14(g)(8).

<sup>61</sup> 50 C.F.R. § 402.14(g)(8), (h)(1).

<sup>62</sup> 50 C.F.R. § 402.02; *see also Defenders of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1101 (E.D. Wash. 2006).

<sup>63</sup> *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 481 F.3d 1224, 1230 (9th Cir. 2007) (citing 50 C.F.R. § 402.14(g)(2)–(3)) (internal quotations omitted).

If an agency action related to a fishery is expected to jeopardize the species, the BiOp will include non-discretionary Reasonable and Prudent Alternatives and a list of Terms and Conditions for the fishery.<sup>64</sup> If the agency action related to a fishery is determined not to jeopardize the species, the BiOp will include more flexible Reasonable and Prudent Measures and a list of Terms and Conditions for the fishery.<sup>65</sup>

Importantly, the BiOp must also include an ITS that authorizes and specifies the level of acceptable take for the fishery that will not trigger future consultation.<sup>66</sup> The ITS has two purposes. First, it provides a safe harbor for a specified level of incidental take.<sup>67</sup> A fishery authorized subject to an ITS may incidentally (but not intentionally) take endangered species, which is otherwise illegal.<sup>68</sup> If the fishery exceeds the take specified in the ITS, however, the safe harbor no longer applies, and the fishery and its participants are liable for violating the ESA.<sup>69</sup> Any person who knowingly “takes,” that is, causes lethal or sub-lethal harm to, an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment (civil fines of up to \$25,000 per violation and criminal penalties of up to \$50,000 and imprisonment for up to a year).<sup>70</sup> Second, the ITS provides a trigger.<sup>71</sup> The BiOp and ITS include a requirement that the Fisheries Service must effectively monitor takes in a fishery against the trigger specified in the ITS.<sup>72</sup> If the authorized fishery exceeds the trigger, *i.e.*, the level of “take” specified in the ITS, the Fisheries Service must immediately reinstate ESA Section 7 consultation to reevaluate impacts of the fishery to ESA-listed species.<sup>73</sup> For ESA-listed marine mammals, the ITS must include a discussion of measures necessary to comply with the MMPA, which, as described above and discussed below, imposes additional conditions on the Fisheries Service’s ability to authorize the take of endangered marine mammals.

### C. Emergency Action under the ESA

The Fisheries Service has authority under the ESA to take emergency action when there is an “emergency posing a significant risk to the well-being of any species of fish or wildlife or plants.”<sup>74</sup> When taking such emergency action, the Fisheries Service can bypass standard ESA and Administrative Procedure Act rulemaking procedures to issue emergency regulations to protect a species.<sup>75</sup>

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<sup>64</sup> 16 U.S.C. § 1536(b)(3)(A).

<sup>65</sup> *Id.* § 1536(b)(4).

<sup>66</sup> 50 C.F.R. § 402.14(i).

<sup>67</sup> *See Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 909 (9th Cir. 2012).

<sup>68</sup> *Id.*

<sup>69</sup> 16 U.S.C. § 1540(a), (b); *see also Bennett v. Spear*, 520 U.S. 154, 170 (1997).

<sup>70</sup> *Id.*

<sup>71</sup> *Ctr. for Biological Diversity*, 695 F.3d at 909.

<sup>72</sup> 50 C.F.R. § 402.14(i).

<sup>73</sup> *Id.*

<sup>74</sup> 16 U.S.C. § 1533(b)(7).

<sup>75</sup> *Id.*

### III. MAGNUSON-STEVENS ACT

The Magnuson-Stevens Act of 1976 governs fishery management in U.S. federal waters. In addition to the statutory goals of fostering long-term biological and economical sustainability or marine fisheries, the Act gives the Fisheries Service authority to issue emergency regulations to address “recent, unforeseen events or recently discovered circumstances” that “present serious conservation or management problems in the fishery.”<sup>76</sup>

### IV. NATIONAL ENVIRONMENTAL POLICY ACT

Congress enacted the National Environmental Policy Act (NEPA) in 1969 to ensure that federal agencies incorporated environmental concerns into their decision-making processes.<sup>77</sup> In furtherance of this goal, NEPA compels federal agencies to prospectively evaluate the environmental impacts of proposed actions that they carry out, fund, or authorize. Federal agencies must prepare an Environmental Impact Statement (EIS) whenever they propose “major Federal actions significantly affecting the quality of the human environment.”<sup>78</sup> The EIS details the impacts of the federal action on the environment and demonstrates careful consideration of reasonable alternatives.<sup>79</sup>

#### A. Scoping Process

Scoping is a critical early step in the EIS process, as it provides an opportunity for all interested stakeholders with a variety of perspectives to help inform the process. It helps to “determine the scope of issues to be addressed in depth in the analysis,” “identify concerns . . . and invite participation from affected entities,” “define the alternatives that will be analyzed,” and “identify the environmental issues that are pertinent to the proposed action.”<sup>80</sup> A comprehensive and equitable scoping process is essential for identifying the “reasonable range” of alternatives.

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<sup>76</sup> 16 U.S.C. § 1855(c); 62 Fed. Reg. 44,421-42 (Aug. 21, 1997).

<sup>77</sup> 42 U.S.C. § 4331(a).

<sup>78</sup> 42 U.S.C. § 4332(C).

<sup>79</sup> *Id.*

<sup>80</sup> 40 C.F.R. § 1501.7; NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities*, at 16 (January 13, 2017), <https://www.nepa.noaa.gov/docs/NOAA-NAO-216-6A-Companion-Manual-03012018.pdf>; *Citizens’ Comm. to Save Our Canyons v. U.S. Forest Serv.*, 297 F.3d 1012, 1022 (10th Cir. 2002).

## **B. A Reasonable Range of Alternatives Must Be Explored in Any EIS**

A “reasonable range” of alternatives must be evaluated in the EIS process to address the purpose and need of proposed agency action.<sup>81</sup> Those reasonable alternatives must be rigorously explored and objectively evaluated. Each alternative must be “considered in detail...so that reviewers may evaluate their comparative merits.”<sup>82</sup> “What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case.”<sup>83</sup> As one court stated, the agency “must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate.”<sup>84</sup>

## **C. Public Comments Must Be Considered in Environmental Impact Statements**

Public involvement is essential to implementing NEPA; it “helps the agency understand the concerns of the public regarding the proposed action and its environmental impacts, identify controversies, and obtain the necessary information for conducting the environmental analysis.”<sup>85</sup> Following public comment on scoping,<sup>86</sup> the agency must prepare a Draft EIS, and it must distribute the Draft EIS and gather public input.<sup>87</sup> Specifically, the agency “must, to the extent practicable, provide the public with relevant environmental information and a meaningful opportunity to provide its views for consideration by the agency.”<sup>88</sup> After the Draft EIS comment period closes, the agency “must assess and consider the comments received.”<sup>89</sup>

In formulating a Final EIS, the agency must respond by one or more of the following means to each public comment received on the Draft EIS:

- (a) modify the alternatives, including the proposed action;<sup>90</sup>
- (b) develop and evaluate alternatives not previously given serious consideration by the agency;

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<sup>81</sup> 40 C.F.R. § 1502.14(a).

<sup>82</sup> *Id.* at § 1502.14(b).

<sup>83</sup> Council on Environmental Quality, *40 Most Asked Questions Concerning CEQ's Nation Environmental Policy Act Regulations* (Mar. 23, 1981), <https://www.energy.gov/sites/prod/files/2018/06/f53/G-CEQ-40Questions.pdf>.

<sup>84</sup> *Ilio'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006).

<sup>85</sup> NOAA Administrative Order Series 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (May 20, 1999), [https://www.nepa.noaa.gov/NAO216\\_6.pdf](https://www.nepa.noaa.gov/NAO216_6.pdf).

<sup>86</sup> 40 C.F.R. § 1501.7; NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities*, at 16 (January 13, 2017); *Citizens'*, 297 F.3d at 1022.

<sup>87</sup> NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities*, at 16 (January 13, 2017).

<sup>88</sup> *Id.* at 17.

<sup>89</sup> *Id.*

<sup>90</sup> The agency has broad discretion to modify the alternatives considered in the Draft EIS based on input received during the public comment process. Substantial changes to the scope of alternatives considered in the Draft EIS may require the preparation of a Supplemental EIS followed by an additional public comment period. 42 U.S.C. § 4332(C)(iii); *Dubois v. U.S. Dept. of Agric.*, 102 F.3d 1273 (1st Cir. 1996), certiorari denied 521 U.S. 1119 (1997).

- (c) supplement, improve or modify its analyses;
- (d) make factual corrections; or
- (e) explain why the comments do not warrant further agency response, citing the sources, authorities or reasons that support the agency's position and, if appropriate, indicate those circumstances that would trigger agency reappraisal or further response.<sup>91</sup>

#### **D. NEPA's "Best Available Science" Requirement**

NEPA requires agencies to "[u]tilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment."<sup>92</sup> The White House Council on Environmental Quality's (CEQ) NEPA regulations provide standards for an EIS's information requirements and preparation.<sup>93</sup> An EIS must clearly present information and analysis of the environmental consequences that form the scientific and analytic basis for consideration of reasonable alternatives.<sup>94</sup> In preparing an EIS, agencies must "insure the professional . . . [and] scientific integrity, of the discussions and analyses in environmental impact statements."<sup>95</sup> In so doing, they must identify the methodologies used, and must explicitly refer to the scientific and other sources of information relied upon for conclusions set forth in the EIS.<sup>96</sup> The information included in an EIS "must be of a high quality," and must allow for "[a]ccurate scientific analysis, expert agency comments, and public scrutiny."<sup>97</sup> The agency must also discuss responsible opposing views.<sup>98</sup>

When information "relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives," the CEQ regulations require that the agency either: (1) determine that the cost of obtaining such information is "exorbitant or the means to obtain it are not known," or (2) obtain the information and include it in the EIS.<sup>99</sup>

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<sup>91</sup> 40 C.F.R. § 1502.9(c); NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities*, at 17 (January 13, 2017).

<sup>92</sup> 42 U.S.C. § 4332(A).

<sup>93</sup> 40 C.F.R. pt. 1502. In some instances, federal departments and agencies have promulgated additional regulations governing applicable NEPA standards. See, e.g., 43 C.F.R. pt. 46 (specific NEPA regulations for agencies within the United States Department of the Interior); 36 C.F.R. pt. 220 (specific NEPA regulations for the United States Forest Service).

<sup>94</sup> 40 C.F.R. §§ 1502.14, 1502.16.

<sup>95</sup> *Id.* § 1502.24; see also *Save the Peaks Coal. v. U.S. Forest Serv.*, 669 F.3d 1025, 1037-38 (9th Cir. 2012) (agencies have a "duty to ensure the scientific integrity of the [EISs] discussion and analysis"); *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1073-75 (9th Cir. 2012) (an agency must "ensure the 'scientific integrity' of the discussions and analyses in an EIS" (quoting 40 C.F.R. § 1502.24)).

<sup>96</sup> 40 C.F.R. § 1502.24.

<sup>97</sup> *Id.* § 1500.1(b).

<sup>98</sup> *Id.* § 1502.9(b).

<sup>99</sup> *Id.* § 1502.22.

The underlying purpose of the CEQ regulations is to ensure that agencies, to the greatest extent possible, have access to and include in environmental analyses all available information necessary to assess impacts and make a reasoned choice between alternatives.<sup>100</sup> In sum, NEPA, its implementing regulations, and agency guidance all recognize that an effective impact analysis and the agency’s evaluation of alternatives must be based on relevant high-quality data and other information.

Federal agencies also have continuing obligations pursuant to NEPA and must take a “hard look” at the environmental effects of planned actions both well before and after a proposal has received initial approval.<sup>101</sup> Federal agencies also have an ongoing duty to obtain high-quality information, accurate scientific analysis, and “full and fair discussion” of direct and indirect environmental impacts.<sup>102</sup> Even after an EIS has been finalized, if “[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns” or “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” an EIS “shall” be supplemented.<sup>103</sup>

## V. ADMINISTRATIVE PROCEDURE ACT

In an effort to ensure public participation in the informal rulemaking process, the Administrative Procedure Act (APA) requires agencies to provide the public with adequate notice of a proposed rule followed by a meaningful opportunity to comment on the rule’s content.<sup>104</sup> Additionally, “[matters] of great importance, or those where the public submission of facts will be either useful to the agency or a protection to the public, should naturally be accorded more elaborate public procedures.”<sup>105</sup> In reviewing an agency rulemaking, “courts have focused on whether the agency provided an ‘adequate’ opportunity to comment—of which the length of the comment period represents only one factor for consideration.”<sup>106</sup>

The APA delineates the standard of judicial review courts use to determine the validity of agency actions. A reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be:

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<sup>100</sup> *See id.* §§ 1500.1, 1502.14.

<sup>101</sup> *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989).

<sup>102</sup> 40 C.F.R. §§ 1500.1(b), 1502.1, 1502.16(a),(b); *Friends of Clearwater v. Dombeck*, 222 F.3d 552, 557 (9th Cir. 2000) (explaining that “an agency that has prepared an EIS . . . must be alert to new information that may alter the results of its original environmental analysis”).

<sup>103</sup> 40 C.F.R. §1502.9(c)(1)(i),(ii); *Marsh*, 490 U.S. at 374.

<sup>104</sup> 5 U.S.C. § 553 (b)–(c).

<sup>105</sup> Todd Garvey, Cong. Research Serv., R41546, A Brief Overview of Rulemaking and Judicial Review, at 2 (2017), <https://fas.org/sgp/crs/misc/R41546.pdf>.

<sup>106</sup> *Id.* at n.14 (stating that “Executive Order 12866, which provides for presidential review of agency rulemaking via the Office of Management and Budget’s Office of Information and Regulatory Affairs, states that the public’s opportunity to comment, ‘in most cases should include a comment period of not less than 60 days.’ Exec. Order No. 12866, § 6(a), 58 Fed. Reg. 51,735 (Oct. 4, 1993).”).

- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
- (B) contrary to constitutional right, power, privilege, or immunity;
- (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
- (D) without observance of procedure required by law;
- (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
- (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court. In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.”<sup>107</sup>

## FACTUAL BACKGROUND

### I. CHRONOLOGY OF NOTABLE AGENCY ACTIONS TO REDUCE TAKES OF LARGE WHALES IN ATLANTIC FISHERIES

Since its inception in 1996, the ALWTRT has developed a series of regulations to minimize takes of large whales, including NARWs, in U.S. Atlantic fisheries from Florida to the Canadian border.<sup>108</sup> These regulations were then implemented by the Fisheries Service to create, remove, and modify gear restrictions and to impose time-area management strategies to meet the goals and requirements of the MMPA and ESA.

These actions include two 2002 actions to create dynamic area management (DAM) and seasonal area management (SAM) programs,<sup>109</sup> a June 2007 rule to expand the Southeast U.S. Restricted Area and modify regulations for the gillnet fishery,<sup>110</sup> an October 2007 gear modification that eliminated the DAM program, replaced it with gear modifications and expanded SAM areas,<sup>111</sup> and most recently a “trawling up” rule to increase the minimum number of lobster traps that can be fished together on a string or “trawl” of traps in order to reduce the amount of vertical lines in the water.<sup>112</sup>

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<sup>107</sup> 5 U.S.C. § 706(2).

<sup>108</sup> ALWTRP Interim Final Rule, 62 Fed. Reg. 39,157 (July 22, 1997). Conservation of minke, humpback, and fin whales is also included in this plan.

<sup>109</sup> DAM Final Rule, 67 Fed. Reg. 1133 (Jan. 9, 2002); SAM Interim Final Rule, 67 Fed. Reg. 1142 (Jan. 9, 2002).

<sup>110</sup> SE Modifications Final Rule, 72 Fed. Reg. 34,632 (June 25, 2007).

<sup>111</sup> Broad-based gear modification final rule, 72 Fed. Reg. 57,104 (Oct. 5, 2007).

<sup>112</sup> Final Rule, 79 Fed. Reg. 36,586 (June 27, 2014).

## A. RESULTS OF PAST EFFORTS AND CURRENT NEED FOR AGENCY ACTION

The ALWTRP significantly changed the management, administration and operations of a range of fisheries in the U.S. Atlantic. These measures had moderate success from the implementation of the ALWTRP in the 1990s through 2010.<sup>113</sup> During this time, large whales, particularly NARWs, experienced moderate recovery from a population size in the mid-200s to more than 480 in 2010.<sup>114</sup>

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>115</sup> The two main human-caused threats to NARWS – vessel strikes and fishing entanglement – are the main source of the decline, and possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related whale behavior changes.<sup>116</sup> In 2017, responding to an elevated number of observed NARW deaths, the Fisheries Service declared an Unusual Mortality Event (UME) for NARWs which is currently ongoing.<sup>117</sup> A UME is defined under the MMPA as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands *immediate* response.”<sup>118</sup>

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<sup>113</sup> NOAA Fisheries, *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures> (Feb. 3, 2021).

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (Sept. 18, 2018) at 7; Moore et al., *Assessing North Atlantic right whale health: threats, and development of tools critical for conservation of the species*, *Dis. Aquat. Org.* Vol. 143: 205-226 (Feb. 25, 2021) <https://www.int-res.com/articles/feature/d143p205.pdf>.

<sup>117</sup> NOAA Fisheries, *2017-2019 North Atlantic Right Whale Unusual Mortality Event*, NOAA Fisheries, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-north-atlantic-right-whale-unusual-mortality-event> (Mar. 1, 2021).

<sup>118</sup> 16 U.S.C. § 1421(h)(6). The MMPA defines “stranding” as “an event in the wild in which (A) a marine mammal is dead and is – (i) on the beach or shore of the United States; or (ii) in the waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is – (i) on a beach or shore of the United States and unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.” 16 U.S.C. § 1421(h)(3).



## B. Current Status of the NARW Population

Once abundant in the oceans with a population range between 9,000 to 21,000 animals,<sup>119</sup> the NARW is currently one of the most endangered large whales on the planet.<sup>120</sup> Today, only around 360 NARWs remain, with fewer than 80 breeding females.<sup>121</sup>

North Atlantic right whales do not reach reproductive maturity until around 10 years of age. They typically only produce one calf after a year-long pregnancy every three to five years.<sup>122</sup> However, the trauma caused by chronic fishing gear entanglements and other stressors has now increased the calving interval to every 7.6 years.<sup>123</sup> As of February 16, 2021, there have been 15 new calves born for the 2020/2021 breeding season, including five calves from first-time mothers.<sup>124</sup> However, on February 13, 2021 a months-old calf stranded in Florida after being struck by a vessel, making the total number of surviving calves this year 14.<sup>125</sup>

Since the UME began, a total of 34 dead NARWs have been found (21 in Canada and 13 in the United States). The leading cause of death for the UME is “human interaction,” with the two greatest threats being entanglements in fishing gear and vessel strikes.<sup>126</sup> Additionally, 14 live whales have been documented with serious injuries from entanglements in fishing gear and vessel strikes.<sup>127</sup> Actual whale mortality is likely much higher than these observed numbers, since observed NARW carcasses only accounted for 36% of all estimated deaths between 1990-2017.<sup>128</sup>

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<sup>119</sup> Monsarrat S, Pennino MG, Smith TD, et al. (2016) A spatially explicit estimate of the prewhaling abundance of the endangered North Atlantic right whale: *Eubalaena glacialis* Historical Abundance. *Conservation Biology* 30: 783–791. doi: 10.1111/cobi.12664; E.H. Buck, *The North Atlantic Right Whale: Federal Management Issues*. Library of Congress: Congressional Research Service. Report No.: RL30907 (Mar. 29, 2001).

<sup>120</sup> NOAA Fisheries, *Species Directory – North Atlantic Right Whale*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Jan. 28, 2021).

<sup>121</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*, [https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwreport_cardfinal.pdf) (last visited Feb. 16, 2021).

<sup>122</sup> Scott D. Kraus, *Reproductive Parameters of the North Atlantic Right Whale*, 2 *J. Cetacean Res. Manage.* (Special Issue) 23 (2001).

<sup>123</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*, <https://www.narwc.org/report-cards.html> (last visited Feb. 16, 2021).

<sup>124</sup> NOAA Fisheries, *North Atlantic Right Whale Calving Season 2021*, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/north-atlantic-right-whale-calving-season-2021> (Feb. 17, 2021).

<sup>125</sup> NOAA Fisheries, *North Atlantic Right Whale Calf Stranded Dead in Florida*, <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida> (Feb. 17, 2021).

<sup>126</sup> NOAA Fisheries, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (Mar. 1, 2021).

<sup>127</sup> *Id.*

<sup>128</sup> Kraus SD, Brown MW, Caswell H, Clark CW et al. (2005) North Atlantic right whales in crisis. *Science* 309: 561–562; see also Richard Pace et al., *Cryptic Mortality of North Atlantic Right Whales*, *Conservation Science and Practice* Vol. 3, Issue 2 (Feb. 2, 2021), <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.346>.

According to the Fisheries Service, the lobster and crab fisheries deploy about 93% of the fixed fishing gear in the waters of the U.S. Northeast where NARWs often transit and/or aggregate.<sup>129</sup> The fixed fishing gear used by these fisheries generally involves vertical buoy lines that connect down to lobster or crab traps/pots on the ocean floor, with ground lines connecting strings of multiple traps into a “trawl.” With over 900,000 buoy lines deployed annually in these two U.S. fisheries alone, these vertical lines in the water column present a significant threat of entanglement for NARWs.<sup>130</sup>

Fishing gear lines have been seen wrapped around NARWs' mouths, fins, tails and bodies, which slows them down, making it difficult to swim, reproduce and feed, and can kill them.<sup>131</sup> The lines cut into the whales' flesh, leading to life-threatening infections, and are so strong that they can sever fins and tails and cut into bone.<sup>132</sup>

## II. RULEMAKING PROCESS FOR THE PROPOSED RISK REDUCTION RULE

### A. 2017-2018 ALWTRT Meetings

In response to the necessity of reducing serious injury and mortality of NARWs in fixed-gear fisheries, the ALWTRT met throughout 2017 and 2018 to explore current issues and challenges facing NARWs in the U.S. Atlantic. These ALWTRT meetings discussed the threats to the species, as well as alternatives for mitigating the threats. The meetings culminated in a meeting in October 2018, where the ALWTRT accepted and discussed nine alternative proposals from ALWTRT members to reduce takes of NARWs. The alternatives included new time-area management options, gear reductions, and gear restrictions and modifications. This meeting served as a precursor to a 2019 meeting where the ALWTRT would attempt to reach consensus on which alternative(s) to recommend.<sup>133</sup>

### B. 2019 ALWTRT Meeting

Following a delay caused by a federal government shutdown, the ALWTRT met in April 2019 to seek consensus on modifications to the ALWTRP to reduce takes to below PBR. Prior to the meeting, the Fisheries Service provided the ALWTRT with a clear goal for the meeting to meet the needs of the species: reduce mortalities and serious injuries of NARWs in

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<sup>129</sup> NOAA Fisheries, *Fact Sheet - Proposed “Risk Reduction Rule” to Modify the Atlantic Large Whale Take Reduction Plan* (Dec. 31, 2020), <https://media.fisheries.noaa.gov/2021-01/TRTFactSheetRev011221.pdf?null>.

<sup>130</sup> *Draft EIS* Vol. II at Appendix 5.1, Exhibit 8.

<sup>131</sup> NOAA Fisheries, *Young Right Whale Likely Died from Entanglement*, <https://www.fisheries.noaa.gov/feature-story/young-right-whale-likely-died-entanglement#:~:text=Young%20Right%20Whale%20Likely%20Died%20from%20Entanglement%20September,to%20the%20information%20scientists%20obtained%20from%20the%20necropsy>. (Sept. 7, 2018); Rachel M. Cassoff et al., *Lethal Entanglement in Baleen Whales*, 96 *Diseases of Aquatic Organisms* 175 (2011).

<sup>132</sup> Cassoff, *supra* note 128.

<sup>133</sup> *Atlantic Large Whale Take Reduction Plan: The Take Reduction Team – Meetings*, NOAA Fisheries, <https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/index.html> (last visited August 16, 2019).

U.S. fisheries to below the NARW PBR level at that time of 0.9 via a 60% to 80% reduction of mortalities and serious injuries from current levels.<sup>134</sup> The Fisheries Service suggested that the ALWTRT use a “relative risk reduction decision support tool” to compare alternative measures to identify a suite of management strategies and tools using a common metric rather than evaluate options independently.<sup>135</sup>

Following days of intense discussion, the ALWTRT ultimately decided, by majority but not consensus opinion, to set state-specific risk reduction targets based on vertical line reduction and weak rope that is designed to come apart when entangled with a large whale.<sup>136</sup> This suite of measures was supported by all voting members of the ALWTRT except one, who opposed because they did not think the strategy went far enough to meet the goals and requirements of the MMPA and ESA.

### C. NEPA Scoping Process

On August 2, 2019, the Fisheries Service published a Notice of Intent (NOI) to develop an Environmental Impact Statement to modify the ALWTRP to reduce serious injury and mortality of large whales in commercial trap/pot fisheries along the U.S. East Coast.<sup>137</sup> The purpose and need as described in the Notice of Intent is “to fulfill the mandates of the MMPA to reduce impacts of fisheries on large whale species below their PBR level.”<sup>138</sup> The public scoping process for the Draft EIS ended on September 16, 2019.<sup>139</sup> Public scoping meetings were attended by over 800 people, and the Fisheries Service received over 89,200 written comments.<sup>140</sup> After the public scoping process ended, additional scoping meetings were in January and February of 2020 held by Maine, New Hampshire, Massachusetts and Rhode Island.<sup>141</sup> Oceana provided comments at public hearings and in writing.<sup>142</sup>

Following the end of the notice and comment period on September 16, 2019, the Fisheries Service continued the development of the Proposed Risk Reduction Rule and the related Draft EIS. While the Fisheries Service considered the TRT's April 2019 near-consensus

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<sup>134</sup> Letter from Colleen Coogan, *Take Reduction Target Letter*, NOAA Fisheries (April 5, 2019), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/06\\_take\\_reduction\\_target\\_letter-april52019.html](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/06_take_reduction_target_letter-april52019.html).

<sup>135</sup> Michael J. Asaro, *Summary of April 2019 Atlantic Large Whale Take Reduction Team Meeting*, NOAA Fisheries (June 13, 2019), <https://s3.amazonaws.com/nefmc.org/NEFMC-TRT-Presentation-June-2019-Asaro.pdf>.

<sup>136</sup> NOAA Fisheries, *Cross Caucus Outcomes as Presented and Voted Upon 4/26/19*, <https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross-caucus-outcomes-as-presented-and-voted-upon-4-26-19.pdf> (last visited August 15, 2019).

<sup>137</sup> Notice of Intent to Prepare Environmental Impact Statement, Request for Comments, 84 Fed. Reg. 37,822 (Aug. 2, 2019)

<sup>138</sup> Notice of Intent to Prepare Environmental Impact Statement, Request for Comments, 84 Fed. Reg. 37,822 (Aug. 2, 2019).

<sup>139</sup> Draft EIS Vol. I at 10-319.

<sup>140</sup> *Id.*

<sup>141</sup> *Id.* at 1-20.

<sup>142</sup> Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019), attached as Appendix II.

consensus recommendation,<sup>143</sup> the Draft EIS states that “most of the measures in the Alternative Two (preferred) come from New England states and after frequent meetings and close collaboration with trap/pot fishermen.”<sup>144</sup> This statement appears to indicate that there were extensive interactions outside of the statutory processes that heavily influenced the outcome of the NEPA scoping process. And, even after this timeframe, the Trump Administration’s Office of Management and Budget, Office of Information and Regulatory Affairs sat on the Proposed Risk Reduction Rule without further action for six months; in fact, the Administration did not release the rule until New Year’s Eve - December 31, 2020, with a deadline of March 1, 2021 for public comment.<sup>145</sup>

#### D. Proposed Risk Reduction Rule

The Proposed Risk Reduction Rule includes two alternatives to the status quo (considered **Alternative 1**).<sup>146</sup>

**Alternative 2** is the agency’s preferred alternative. This alternative would involve:

- **Trawling Up** - Increase the number of traps per trawl (a trawl is a string of traps) based on area fished and miles fished from shore in the Northeast Region (Maine to Rhode Island). In some regions, trawls will go from 3 traps per trawl to 8; in other areas, up to 10, 15, or 25 traps per trawl; and in one location, a minimum of 45 traps per trawl and an allowance of a trawl 1.75 miles long.
- **Modify Existing Closed Areas** - Extend the state waters portion of the existing Massachusetts Restricted Area by one month through May *or* until surveys demonstrate that whales have left the area and no more than 3 whales remain.
- **Create New Closed Areas** - Creation of up to two new seasonal restricted areas south of Nantucket (February through April) and in the Gulf of Maine (October through January).
- **Ropeless** - Redefine existing closure areas to be areas closed to fishing with persistent buoy lines. This will allow use of ropeless gear in the closed areas under Exempted Fishing Permits.
- **Weak Rope** - Conversion of vertical buoy line to weak rope, or insertions in buoy lines of weaker rope or other weak inserts, with a maximum breaking strength of 1,700 lbs (771.1 kg).
- **Gear Marking** - Require expanded gear marking that differentiates vertical lines by state and expands into areas previously exempt from gear marking. Maine is already using state-specific marking.<sup>147</sup>

**Alternative 3** would involve:

- **Vertical Line Cap** - Reduce the amount of line in the water by capping lines at 50% of the lines fished in 2017 in federal and non-exempt waters throughout the Northeast. The

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<sup>143</sup> Draft EIS Vol. I at 3-48 (Table 3.1).

<sup>144</sup> *Id.* at 1-23.

<sup>145</sup> Office of Information and Regulatory Affairs, *OIRA Conclusion of EO 12866 Regulatory Review*, <https://www.reginfo.gov/public/do/eoDetails?rrid=130845> (last visited Feb. 25, 2021).

<sup>146</sup> Draft EIS Vol. I at 3-54 (stating that “[u]nder Alternative 1, NMFS would continue with status quo.”).

<sup>147</sup> Draft EIS Vol. I at 3-54 to 3-56 (detailing the measures included under Alternative 2, the agency’s preferred alternative).

only exception is in offshore Lobster Management Area (LMA) Three that includes the outer Gulf of Maine and Georges Bank regions.

- **Trawling Up** - A seasonal increase in the minimum traps per trawl requirement would be implemented in offshore areas (LMA Three), requiring a minimum of 45 traps per trawl of maximum 1.75 miles in length.
- **Modification of Existing Closed Areas** - The entire Massachusetts Restricted area would be extended from for a month to the end of May, but with a “soft closure” in May, meaning that it could be opened if surveys demonstrate whales have left the restriction area.
- **New Closed Areas** - Three new seasonal restricted areas would be created, including a seasonal restricted period for LMA One in the Gulf of Maine (October – February), a summer restricted area north of Georges Bank at Georges Basin (May – August). Fishing with ropeless gear would be allowed during these seasons. Two seasonal restricted area options (February – April) are analyzed south of Cape Cod and the southern coast of Massachusetts (much larger than the Alternative 2 area).
- **Ropeless** - Redefine existing closure areas to be closed to fishing with persistent buoy lines. This will allow use of ropeless gear in the closed areas under exempted fishing permits.<sup>148</sup>

## DISCUSSION

### I. THE DRAFT EIS VIOLATES NEPA AND THE APA

#### A. The Fisheries Service Should Appropriately Consider the Strategies Recommended by Oceana in its Scoping Comments

As part of the NEPA scoping process, the Fisheries Service was required to identify reasonable alternatives to the Proposed Risk Reduction Rule (i.e., Alternative 2 (agency's preferred alternative)) to be evaluated in the Draft EIS.<sup>149</sup> The scoping process provides an opportunity for stakeholders to propose alternative strategies, and the agency must consider whether such proposed strategies are reasonable and therefore should be examined in detail in the Draft EIS.<sup>150</sup> During the scoping process for the Proposed Risk Reduction Rule, Oceana submitted comments recommending several proven and effective fisheries management strategies to strengthen the Proposed Risk Reduction Rule, including the use of focused dynamic management areas, expanded use of static management areas, enhanced monitoring of whale locations, fishing effort, catch, bycatch and entanglement, and broader use of AIS.<sup>151</sup> The

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<sup>148</sup> Draft EIS Vol. I at 3-56 to 3-58 (detailing the measures included under Alternative 3).

<sup>149</sup> 40 C.F.R. § 1502.14.

<sup>150</sup> 40 C.F.R. § 1501.7; NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities*, at 16 (January 13, 2017), <https://www.nepa.noaa.gov/docs/NOAA-NAO-216-6A-Companion-Manual-03012018.pdf>; *Citizens'*, 297 F.3d at 1022.

<sup>151</sup> Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019), attached as Appendix II.

Fisheries Service's refusal to consider and evaluate these effective and reasonable strategies violated NEPA and was arbitrary and capricious under the APA.

### **1. The Fisheries Service's Rejection of Strategies Because they were "Unpopular with Stakeholders" was Arbitrary and Capricious**

An agency's action is arbitrary and capricious under the APA if the agency "relied on factors that Congress has not intended it to consider."<sup>152</sup> In the NEPA scoping context, whether a proposed strategy is "reasonable" and warrants examination in a Draft EIS, is determined relative to the purpose of the proposed action.<sup>153</sup> Specifically, "an alternative is properly excluded from consideration in an environmental impact statement only if it would be reasonable for the agency to conclude that the alternative does not bring about the ends of the federal action."<sup>154</sup>

In preparing the Draft EIS, the Fisheries Service refused to evaluate strategies proposed by Oceana and other stakeholders, including trap reductions, enhanced weak line requirements, static area closures, and gear marking requirements, on grounds that such strategies were "unpopular with stakeholders."<sup>155</sup> First, it is unclear what "unpopular" means in this context, and which stakeholders are being referred to. Does "unpopular" mean that some stakeholders raised objections to the alternative? How valid were those objections? The Draft EIS does not say. One can only conclude that if there was enough opposition to an alternative, the Fisheries Service scrapped it. The approach begs the question, however, of how weak rope became so central among the management strategies in the Proposed Risk Reduction Rule, as there has been opposition to weak rope from scientists and conservation organizations. Second, the popularity of a proposed strategy with stakeholders is not relevant to the purpose of the Proposed Risk Reduction Rule. Congress intended federal agencies to base NEPA scoping decisions on purpose and need rather than popularity.<sup>156</sup> The Fisheries Service should not have excluded alternatives proposed by Oceana and other stakeholders unless the agency found that such strategies would not "fulfill the mandates of the MMPA to reduce impacts of fisheries on large whale species below their PBR level."<sup>157</sup> To reject Oceana's proposed strategies based on popularity rather than effectiveness violates the agency's obligation under NEPA to take a "hard look" at the impacts of its actions.<sup>158</sup> It is also arbitrary and capricious under the APA.<sup>159</sup>

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<sup>152</sup> *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); 5 U.S.C. § 706(2).

<sup>153</sup> *Anglers Conservation Network v. Pritzker*, 139 F.Supp.3d 102, 118-19 (D.D.C. 2015).

<sup>154</sup> *Id.*, quoting *City of Alexandria, Va. v. Slater*, 198 F.3d 862, 867 (D.C.Cir. 1999).

<sup>155</sup> Draft EIS Vol. I at 3-78 to 3-82.

<sup>156</sup> *Anglers*, 139 F.Supp.3d at 118.

<sup>157</sup> Notice of Intent to Prepare Environmental Impact Statement, Request for Comments, 84 Fed. Reg. 37,822 (Aug. 2, 2019).

<sup>158</sup> *See Marsh*, 490 U.S. at 374.

<sup>159</sup> *See Motor Vehicle Mfrs.*, 463 U.S. at 43; 5 U.S.C. § 706(2).

## 2. The Fisheries Service's Basis for Rejecting the Dynamic Closure Option is Invalid

As noted above, Oceana recommended that the Fisheries Service explore the use of dynamic area management strategies to reduce risks to NARWs. The Fisheries Service rejected that option, on the grounds that it was “[n]ot currently feasible with regulatory process.”<sup>160</sup> It is unclear what that statement means. It is unclear what regulatory process the Fisheries Service is referring to, or why the option is infeasible. Indeed, as discussed above, dynamic closures had been employed in the fishery in the past (between 2002 and 2009), and such closures have been and continue to be used by Canada with demonstrated positive outcomes.<sup>161</sup> For example, in 2020, Canada had no reported fishing gear entanglements.<sup>162</sup> The Fisheries Service's vague and indecipherable dismissal of this option violates the agency's obligation under NEPA to take a “hard look” at the impacts of its actions.<sup>163</sup> It is also arbitrary and capricious under the APA.<sup>164</sup>

## 3. The Fisheries Service May Not Reject Strategies Because the Agency Would Prefer That Such Measures Be Taken By Other Agencies

The Fisheries Service also rejected several proposed trap reduction strategies because the Fisheries Service would “prefer fishery management to be done by [the Atlantic State Marine Fisheries Commission/New England Fisheries Management Council].”<sup>165</sup> Under NEPA, a federal agency “cannot refuse to give serious consideration to environmental factors merely because it thinks that another agency should assume responsibility.”<sup>166</sup> Indeed, a federal agency must still consider a reasonable alternative even if such alternative is “outside of the agency's jurisdiction or control.”<sup>167</sup> The Fisheries Service therefore violated NEPA by rejecting proposed strategies during the scoping process on grounds that the agency would prefer another agency to implement such strategies.

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<sup>160</sup> Draft EIS Vol. I at 3-79.

<sup>161</sup> Fisheries And Oceans Canada, *Backgrounder: Protecting North Atlantic Right Whales*, <https://www.canada.ca/en/fisheries-oceans/news/2019/02/backgrounder-protecting-north-atlantic-right-whales.html> (Feb. 15, 2019); Transport Canada, *Backgrounder: Protecting North Atlantic Right Whales*, <https://tc.canada.ca/en/backgrounder-protecting-north-atlantic-right-whales-0> (Feb. 18, 2021).

<sup>162</sup> Cassidy Chisholm, *Canada stays course on North Atlantic right whale protections*, CBC News, (Feb. 18, 2021), <https://www.cbc.ca/news/canada/nova-scotia/north-atlantic-right-whales-protections-1.5918075#> (noting that “[n]o right whale deaths were reported in Canadian waters in 2020”). For more information on Canada's 2021 measures to protect NARWs, see Transport Canada, *Backgrounder: Protecting North Atlantic Right Whales*, (Feb. 18, 2021), <https://tc.canada.ca/en/backgrounder-protecting-north-atlantic-right-whales-0>.

<sup>163</sup> See *Marsh*, 490 U.S. at 374.

<sup>164</sup> See *Motor Vehicle Mfrs.*, 463 U.S. at 43.

<sup>165</sup> Draft EIS Vol. I at 3-79.

<sup>166</sup> 42 U.S.C. § 4332; *Natural Resources Defense Council, Inc. v. Securities and Exchange Commission*, 432 F.Supp. 1190, 1207 (D.D.C. 1977), reversed by *Natural Resources Defense Council Inc., v. Securities and Exchange Commission*, 606 F.2d 1031 (D.C.Cir. 1979).

<sup>167</sup> 42 U.S.C. § 4332; *Monarch Chemical Works, Inc. v. Exxon*, 466 F.Supp. 639, 651 (D.Ne. 1979).

## **B. The Fisheries Service Conducted Post-Scoping Meetings and Closed Meetings with Industry and Government**

Scoping meetings appear to have been conducted outside of the MMPA and NEPA processes, preventing stakeholders who were unaware of or not included in those meetings from responding to any matters discussed. The public scoping process for the Draft EIS ended on September 16, 2019.<sup>168</sup> Public scoping meetings were attended by over 800 people, and the Fisheries Service received over 89,200 written comments.<sup>169</sup> Yet, as the Draft EIS notes, after that process ended, scoping meetings were held by Maine, New Hampshire, Massachusetts and Rhode Island in January and February of 2020.<sup>170</sup> The Draft EIS also states that “most of the measures in the Alternative Two (preferred) come from New England states and after frequent meetings and close collaboration with trap/pot fishermen.”<sup>171</sup> This statement appears to indicate that there were extensive interactions outside of the statutory processes that heavily influenced the outcome of those processes. While the views of states and trap/pot fishermen are important to developing workable regulations to protect NARWs, those views must be aired and considered as part of a public, multi-stakeholder process. The failure to do so calls into question the validity of the preferred alternative and is inconsistent with NEPA.

## **C. In the Draft EIS, the Fisheries Service Failed to Consider a Reasonable Range of Alternatives for Reducing Risks to NARWs in the Lobster and Jonah Crab Fisheries**

The Fisheries Service did not consider a reasonable range of alternatives for reducing risks to NARWs in the Draft EIS. Apart from the status quo, “No Action” alternative, the Fisheries Service evaluated only two alternatives.<sup>172</sup> The Fisheries Service’s own guidance requires that it should “consider and analyze the impacts of a reasonable range of alternatives to the proposed action . . . . The broader the purpose and need statement, the broader the range of alternatives that must be analyzed.”<sup>173</sup> While there is no set rule for what constitutes a reasonable number of alternatives, in the context of similarly complex fisheries rulemakings, courts have found that evaluation of just two alternatives, apart from the No Action alternative, was insufficient, and violated the law.<sup>174</sup> The Fisheries Service did not lack for alternatives to consider, as Oceana and other stakeholders recommended a number of risk reduction measures

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<sup>168</sup> Draft EIS Vol. I at 10-319.

<sup>169</sup> *Id.*

<sup>170</sup> *Id.* at 1-20.

<sup>171</sup> *Id.* at 1-23.

<sup>172</sup> One federal court has held that the “no action alternative is in fact no alternative at all—taking no action would result in a plain violation” of the ESA and MMPA. *Flaherty v. Bryson*, 850 F. Supp. 2d 38, 72 (D.D.C. 2012) (rejecting NMFS’ rule that only considered “three” alternatives, including a no-action alternative, but rejected at least six suggested additional alternatives without evaluating them in the NEPA Environmental Assessment).

<sup>173</sup> NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities* (January 13, 2017) at 9 <https://www.nepa.noaa.gov/docs/NOAA-NAO-216-6A-Companion-Manual-03012018.pdf>.

<sup>174</sup> *Flaherty*, 850 F. Supp. 2d at 72; *Guindon v. Pritzker*, 31 F. Supp. 3d 169, 181 (D.D.C. 2014) (when vacating rule that applied less biologically conservative alternative, court held that consideration of only three quota alternatives, including a no-action alternative, violated the Magnuson Stevens Act).



that the Fisheries Service dismissed with little justification.<sup>175</sup> Rather, the Fisheries Service appeared to have focused on a limited set of measures proposed by the states and the industry, and ignored other viable alternatives. As the Draft EIS states, “[t]he proposed rule with two notable exceptions combines risk reduction measures as proposed by the New England states or as discussed with the Atlantic Offshore Lobsterman’s Association.”<sup>176</sup> The Fisheries Service rejected and failed to seriously evaluate dozens of other alternatives proposed by Oceana and other stakeholders, including other line reduction, area closure, and monitoring measures, dismissing many for inappropriate reasons such as being “unpopular with stakeholders.”<sup>177</sup> In order to meet its obligations under NEPA, the Fisheries Service must expand the Draft EIS and consider a wider range of alternatives, including alternatives raised by a wider array of stakeholders.

If the consideration of a full range of alternatives would cause a delay in the development of the final rule, the Fisheries Service should issue emergency or interim regulations to reduce risks to NARWs in the interim. Under the MMPA, when the Fisheries Service finds a likely occurrence of incidental deaths or severe injuries of marine mammals that are having or are projected to likely have an immediate and significant negative effect on the species’ population or stock, the Fisheries Service must “prescribe emergency regulations that . . . reduce incidental mortality and serious injury in the fishery.”<sup>178</sup>

In addition to considering a reasonable range of risk reduction methods, the Draft EIS should also evaluate a reasonable range of strategies for monitoring the effectiveness of the Proposed Risk Reduction Rule and determining when future action is required. Specifically, a Take Reduction Plan under the MMPA must include monitoring plans to determine the success of each measure and a timeline for achieving the specific objectives of the Take Reduction Plan.<sup>179</sup> Currently, monitoring of the fisheries under the ALWTRP is poor, with low-quality information about catch, effort, bycatch and other fundamental characteristics of the fisheries. As detailed in Discussion Section VI(B) below, the Draft EIS should have evaluated a reasonable range of monitoring strategies such as those proposed by Oceana during the scoping process, including spatial monitoring, AIS, and catch and bycatch monitoring.<sup>180</sup>

#### **D. The Draft EIS Must Include Consideration of the Cumulative Impacts of All Human Activities on NARWs**

The Draft EIS is fundamentally flawed in that it fails to take into account the cumulative effects on NARWs of all human activities. The Fisheries Service acknowledges in the Draft EIS,

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<sup>175</sup> Draft EIS Vol. I at 3-78 to 3-82.

<sup>176</sup> Draft EIS Vol. I at 3-54.

<sup>177</sup> Draft EIS Vol. I 3-78 to 3-82.

<sup>178</sup> 16 U.S.C. § 1387(g)(1).

<sup>179</sup> 16 U.S.C. § 1387(f); NOAA Fisheries, *Marine Mammal Take Reduction Plans and Teams*, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams> (Nov. 30, 2020).

<sup>180</sup> Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019), attached as Appendix II.

as well as the Proposed Risk Reduction Rule, that NARWs spend a considerable amount of time in Canadian waters, and that significant NARW mortality occurs in those waters.<sup>181</sup> Nonetheless, the Fisheries Service chose to ignore that mortality when setting the PBR of 0.9, against which all of the alternatives in the Draft EIS are measured. The Fisheries Service states:

[I]f a stock spends half its time in U.S. waters, PBR would be divided by two, resulting in a U.S. PBR for right whales of 0.5. Thus, the U.S. fishery related mortality would need to be reduced to below 0.5 (instead of 0.9 as is currently the goal). The Atlantic Scientific Review Group (established under MMPA sec. 117) that advises NMFS on Stock Assessment Reports, including PBR calculations, does not support this approach yet because we do not have sufficient information to apportion time spent in U.S. versus Canadian waters. Therefore, the U.S. target goal remains 0.9; however, NMFS did consider the relative threat including the time right whales spend in U.S. and Canadian waters when apportioning the unattributed entanglement incidents to create the risk reduction target, as described below.<sup>182</sup>

This statement is astounding, because in essence, it says that since the Fisheries Service does not have *exact* figures regarding how much time NARWs spend in Canadian waters, it will assume that they spend *no time* there, with the result being that the PBR of 0.9 may be two or three times what is actually necessary for protection of the species from extinction. In fact, the Fisheries Service itself states in the Draft EIS that “it can be assumed that about 50% of right whale mortalities and serious injuries occur in each country.”<sup>183</sup> And, in the Proposed Risk Reduction Rule, the Fisheries Service stated that, “[f]or the purposes of creating a risk reduction target, NMFS assigned half of these right whale entanglement incidents of unknown origin to U.S. fisheries.”<sup>184</sup> Why the Fisheries Service did not use the 50% number or any other reasonably supportable figure in setting the PBR remains a mystery. By the Fisheries Service’s own logic, the PBR should probably be 0.5 or lower. Since the purpose of the Draft EIS is to evaluate alternatives for reducing risks to NARW in order to achieve the PBR of 0.9, it is fatally flawed, and invalid.

In addition, it is unclear whether and how the Fisheries Service factored in other risks to NARWs, such as vessel strikes, in setting the risk reduction target analyzed in the Draft EIS and chosen in the Proposed Risk Reduction Rule. It stands to reason that since vessel strikes are a significant cause of NARW mortality and serious injury,<sup>185</sup> the risk reduction target against which the alternatives were analyzed would reflect that fact. That is, it would be set at a level that takes into account the impacts of vessel strikes and other activities, recognizing that the impacts of those activities will likely continue, and possibly increase. As the Draft EIS notes with regard to vessel strikes:

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<sup>181</sup> Proposed Rule at 86,880; Draft EIS Vol. I at 1-5, 2-38.

<sup>182</sup> Proposed Rule at 86,880.

<sup>183</sup> Draft EIS Vol. I at 2-38.

<sup>184</sup> Proposed Rule at 86,880.

<sup>185</sup> Draft EIS Vol. I at 2-29, 2-30, 8-271.

Fatal ship strikes have recently increased in occurrence as North Atlantic Right Whales shift north to locate their preferred prey species, *C. finmarchicus* into areas where they did not previously frequent and where mitigation measures were not yet in place (see chapter 2 and (Themelis et al. 2016, Davies and Brillant 2019, Plourde et al. 2019, Sharp et al. 2019)).<sup>186</sup>

Instead, the Fisheries Service set its risk reduction target at the lowest end of the range it was considering, apparently not accounting for other mortality, citing cost considerations for not requiring stronger measures.<sup>187</sup>

The Fisheries Service analyzed alternatives for reducing risks to NARWs from trap/pot fisheries by 60%, in order to reduce the PBR from 2.2 to 0.9. However, since it is known that vessel strikes and other activities will continue to contribute to mortality and serious injury, perhaps even more so, the Draft EIS must analyze mortality and serious injury from *all causes* to ensure that the chosen Risk Reduction Rule will not exceed 0.9. Because the Draft EIS fails to properly account for all of the major threats to NARWs, it is inconsistent with NEPA and arbitrary and capricious under the APA.

## **II. THE DRAFT EIS AND PROPOSED RISK REDUCTION RULE ARE NOT BASED ON THE BEST AVAILABLE SCIENCE, AND SHOULD BE UPDATED**

The Draft EIS and Proposed Risk Reduction Rule are based primarily on data from 2017 and earlier, although more recent data is available. As noted above, NEPA, the MMPA and the ESA all require that agencies use the best scientific information available to them in their decision-making processes.<sup>188</sup> Because the Fisheries Service failed to use important scientific information that was available to it in developing the Proposed Risk Reduction Rule and in evaluating the proposed alternatives in the Draft EIS, both the rule and the Draft EIS are invalid and must be updated. Some of the key data that the Fisheries Service relied upon was data on the NARW population, data on mortality, and data on the number and location of buoy lines in the lobster and Jonah crab fisheries. Yet, although it is now 2021, the Draft EIS and Proposed Risk Reduction Rule are based on 2017 baseline data.<sup>189</sup>

### **A. NARW Population Data**

The Draft EIS states that the most recent population estimate for NARWs is 411 in 2017.<sup>190</sup> Since that time, however, the population has experienced a steep decline, to approximately 360 whales.<sup>191</sup> The Unusual Mortality Event declared by the Fisheries Service in

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<sup>186</sup> Draft EIS Vol. I at 8-271.

<sup>187</sup> Proposed Rule at 86,880.

<sup>188</sup> 42 U.S.C. § 4332(2)(A); 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 402.14(g)(8).

<sup>189</sup> Proposed Rule at 86,881, 86,890; Draft EIS Vol. I at 2-41, 3-66, 3-75.

<sup>190</sup> Draft EIS Vol. I at 2-35.

<sup>191</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*, [https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf) (last visited Feb. 16, 2021).

2017 is still ongoing.<sup>192</sup> Salient and up-to-date scientific facts are crucial when setting policy to protect the species.

The estimated maximum NARW productivity used in the Draft EIS (0.04) is also a large over-estimate that could not be sustained under recent conditions.<sup>193</sup> While single-year production has exceeded 0.04 in the past, this output is not sustainable in the long-term due to the small fraction of reproductively active females and the 3-year minimum interval between successful calving events.<sup>194</sup>

## **B. Mortality and Serious Injury Data**

The data on mortality and serious injury are also critical, yet once again, the Fisheries Service used data from 2017 as the baseline for determining the amount of risk reduction necessary to achieve the PBR of 0.9, despite the dramatic decline of the NARW population since 2017. The Fisheries Service also failed to account for ongoing NARW mortalities that are expected to continue even after implementation of the Proposed Risk Reduction Rule, which will further reduce the PBR between now and 2030.

## **C. Number and Location of Buoy Lines in Water**

The Draft EIS is also based on stale data from 2017 regarding the number and location of buoy lines in the water.<sup>195</sup> Even though the model was run in November 2019, it still looks back to 2017 and the Draft EIS Appendix gives no reason that the agency could not update this for more recent years other than the fact that the agency simply did not do the data collection and updating as it should have done. The Draft EIS needs to update this model to use the most recent annual data available or justify the use of the 2017 estimate as best scientific information available that is statistically representative of the lobster and crab fisheries today.

## **D. Decision Support Tool / Co-Occurrence Model**

In order to evaluate the various proposed risk reduction measures that comprise the two alternatives considered in the Draft EIS, NMFS relied heavily on a model known as the Decision Support Tool (DST). That model, in turn, relies on other models, including the NMFS Vertical Line/Co-occurrence Model developed by Integrated Economics, Inc. (Co-occurrence Model).<sup>196</sup>

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<sup>192</sup> Under the Marine Mammal Protection Act, an Unusual Mortality Event (UME) is defined as “a stranding that – (A) is unexpected; (B) involves significant die-off of any marine mammal population; and (C) demands immediate response.” 16 U.S.C. § 1421h(6); NOAA Fisheries, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (Mar. 1, 2021).

<sup>193</sup> P. Corkeron et al., *The Recovery of North Atlantic Right Whales, Eubalaena glacialis, Has Been Constrained by Human-Caused Mortality*, 5 Royal Society Open Science 11 (2018), <https://royalsocietypublishing.org/doi/pdf/10.1098/rsos.180892>.

<sup>194</sup> S.A. Hayes et al., *US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments - 2017 (Second Edition)*, NOAA Technical Memorandum NMFS-NE-245 (2018), <https://repository.library.noaa.gov/view/noaa/22730>.

<sup>195</sup> Draft EIS Vol. I at 3-60, 3-66.

<sup>196</sup> Draft EIS Vol. I at 1-21, 3-65, 3-66.

These models use information about whale distribution, buoy line numbers, and configurations of trap/pot gear to estimate risks to NARWs. Specifically, the DST defines these risks as the product of: (1) the density of lines in space and time as estimated in the Co-occurrence Model; (2) the density of whales in space and time, and; (3) an estimate of gear threat based on the breaking strength of ropes.<sup>197</sup>

Unfortunately, as further detailed in the attached Evaluation of National Marine Fisheries Service's Proposed Amendment to the ALWTRP of Dr. Sean Brillant of the Dalhousie University Department of Oceanography (Brillant Opinion), attached here as Appendix I, the DST is critically flawed in its reliance on an estimate of gear threat that significantly overemphasizes the contribution of rope strength to entanglement risk.<sup>198</sup> The gear threat value is based on opinions and not scientific evidence, and is heavily influenced by one study – Knowlton et al. (2015) – that has been misinterpreted to mean that rope strength is the determinant of entanglement injury, an unproven premise.<sup>199</sup> In fact, the degree to which rope strength influences the severity of injury is unknown.

The DST has other critical limitations, including that there is a large amount of unacknowledged uncertainty in the outputs of the model, due in part to the relatively small data sets that inform the model, and the lack of validation of model outputs.<sup>200</sup> As a result, risk estimates produced by the model convey disproportionately greater precision than the data that inform the model.<sup>201</sup> These concerns are reflected in peer reviews of the DST, which recommended caution in its use.<sup>202</sup> By failing to account for the uncertainty inherent in the DST, NMFS overestimated the effectiveness of the selected methods for reducing risks to NARWs.<sup>203</sup> As a result, the selected alternative is unlikely to succeed in meeting the PBR.

Oceana recognizes that rulemaking can be a long, cumbersome process, but the fact that the process for developing the Draft EIS and Proposed Risk Reduction Rule has been grinding forward for several years does not excuse the Fisheries Service from ensuring that the Draft EIS and the Proposed Risk Reduction Rule are based on the most current scientific and factual information, particularly on such critical points as NARW population, mortality and serious injury, as well as the number and location of buoy lines. The Fisheries Service's failure to use the best scientific information available undermines the validity of the Draft EIS and Proposed Risk Reduction Rule, and violates the "best available science" mandates set forth in NEPA, the MMPA, and the ESA.

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<sup>197</sup> *Id.* at 3-65, 3-66.

<sup>198</sup> Brillant Opinion at 5.

<sup>199</sup> *Id.*; A.R. Knowlton et al., *Effects of Fishing Rope Strength on the Severity of Large Whale Entanglements*, 30 *Conservation Biology* 318-328 (Jul. 17, 2015), <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cobi.12590>.

<sup>200</sup> Brillant Opinion at 5.

<sup>201</sup> *Id.* at 5-6.

<sup>202</sup> *Id.* at 5; W.D. Bowen, *Independent Peer Review of the North Atlantic Right Whale Decision Support Tool*, Center for Independent Experts (CIE) Program External Independent Peer Review Report (December 2019); J. van der Hoop, *Review of the North Atlantic Right Whale Decision Support Tool*, Center for Independent Experts (CIE) Program External Independent Peer Review Report (December 2019); J. How, *Center for Independent Expert Independent Peer Review of the North Atlantic Right Whale Decision Support Tool* (December 2019).

<sup>203</sup> Brillant Opinion at 6.

The agency should update the Draft EIS and Proposed Risk Reduction Rule to incorporate relevant data from 2018 and 2019. If that process would delay important protections for NARWs, the agency should, as is required by law, use its emergency or interim rulemaking authority under the MMPA, ESA, and MSA to immediately implement temporary measures while the permanent rule is revised.

### **III. THE PROPOSED RISK REDUCTION RULE VIOLATES THE MMPA**

#### **A. The Proposed Risk Reduction Rule Is Not Based on the Best Available Science, and Should be Updated**

As discussed in Discussion Section II above, the Proposed Risk Reduction Rule and Draft EIS are based on outdated and incomplete scientific information. This violates the MMPA's requirement that the Fisheries Service use the "best scientific information available" in analyzing whether or not to authorize incidental takes.<sup>204</sup>

#### **B. The Target Risk Reduction Should be Adjusted to 80% to Ensure That the Final Rule Reduces Takes Below Current PBR and Achieves the Long-Term Zero Mortality Rate Goal**

The Fisheries Service chose the lowest possible target within the 60% to 80% risk reduction range previously identified as necessary to save NARWs from extinction.<sup>205</sup> The 60% to 80% range was first identified by the Fisheries Service in its 2019 Take Reduction Team decision.<sup>206</sup> Since that time, a significant decline in the population of NARWs has occurred. At a minimum, the Fisheries Service should have selected a risk reduction target at the top of the 60% to 80% range or perhaps even higher as needed, whichever is more protective, to account for the further decline of the species.

Instead, the Fisheries Service selected the lowest possible risk reduction target of 60%, inappropriately basing its decision on economic factors. Under the MMPA, the Fisheries Service may "tak[e] into account the economics of the fishery" when designing a take reduction plan, but the long-term goal of the plan must be to reduce mortality and injury "to insignificant levels approaching a zero mortality and serious injury rate."<sup>207</sup> In the short term, the rule must be designed to reduce takes to levels less than the PBR, regardless of economic impacts.<sup>208</sup> Instead of basing its risk reduction target on these goals, the Fisheries Service chose 60% because of "the challenges achieving [an 80%] target without large economic impacts to the fishery."<sup>209</sup> The 60%

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<sup>204</sup> 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 216.105(c) ("[R]egulations will be established based on the best available information.").

<sup>205</sup> Letter from Colleen Coogan, *Take Reduction Target Letter*, NOAA Fisheries (April 5, 2019), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/06\\_take\\_reduction\\_target\\_letter\\_april52019.html](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/06_take_reduction_target_letter_april52019.html).

<sup>206</sup> Draft EIS Vol. I at 3-47, 3-48, Table 3.1.

<sup>207</sup> 16 U.S.C. § 1387(f)(2).

<sup>208</sup> *Id.*

<sup>209</sup> Proposed Rule at 86,880.

risk reduction target is inconsistent with the purpose of take reduction plans developed under the MMPA. The risk reduction target should be increased to 80% or higher to ensure that the short-term take reduction goal and long-term Zero Mortality Rate Goal are achieved.

As noted in the attached Brilliant Opinion, the 60% target will not reduce NARW mortality, and it was chosen despite extensive statements and discussions in the Draft EIS and other key documents indicating that the target is too low. Significantly, the Draft EIS, the Draft BiOp, and the NARW Conservation Framework all recognize that estimates of the number of mortalities and serious injuries of NARWs are underestimates.<sup>210</sup> In fact, a discussion of cryptic mortality in the Draft EIS concludes that the risk reduction target should be 83%, a number that is treated as the upper end of the risk reduction range.<sup>211</sup> There is simply no valid basis for choosing the lowest end of the range as the risk reduction target.

### **C. The Fisheries Service's Actions to Protect NARWs, Including the Proposed Risk Reduction Rule, Violate the MMPA's Timing Requirements**

The MMPA requires that the NARW PBR level be achieved within six months of the ALWTRP's implementation.<sup>212</sup> As demonstrated by the need for the Proposed Risk Reduction Rule, the prior ALWTRP never achieved PBR for NARWs and thus clearly violated this requirement of the MMPA. The Proposed Risk Reduction Rule would also utterly fail to meet the six-month deadline, as it relies on delayed measures and future Fisheries Service actions over the next 10 years to achieve PBR and prevent the decline of the NARW population.<sup>213</sup> Furthermore, implementation of the Proposed Risk Reduction Rule was already delayed for nearly six months as it sat in the Trump Administration's OIRA.<sup>214</sup>

The MMPA also mandated a Zero Mortality Rate Goal for all marine mammals by April 2001.<sup>215</sup> Clearly, the Zero Mortality Rate Goal for NARWs has not been met nearly twenty years after the statutory deadline, indicating the Fisheries Service's failure to effectively implement and enforce this bedrock environmental requirement. With only 360 NARW individuals remaining, the species needs viable and effective protections immediately as required under the MMPA.

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<sup>210</sup> Brilliant Opinion at 4.

<sup>211</sup> *Id.*; Draft EIS at 2-39.

<sup>212</sup> 16 U.S.C. § 1387(f)(2).

<sup>213</sup> NMFS, *Draft Endangered Species Act Section 7 Consultation Biological Opinion*, Consultation No. GARFO-2017-00031 ("Draft BiOp") at 24, Table 2 – Actions to be taken under the Framework.

<sup>214</sup> Office of Information and Regulatory Affairs, *OIRA Conclusion of EO 12866 Regulatory Review*, <https://www.reginfo.gov/public/do/eoDetails?rid=130845> (last visited February 25, 2021).

<sup>215</sup> 16 U.S.C. § 1387(b).

#### **IV. THE DRAFT BIOLOGICAL OPINION, INCIDENTAL TAKE STATEMENT, AND NARW CONSERVATION FRAMEWORK RELATED TO THE PROPOSED RISK REDUCTION RULE VIOLATE THE ESA AND THE MMPA**

The recently issued Draft BiOp,<sup>216</sup> Incidental Take Statement (ITS), and NARW Conservation Framework rely heavily on the Proposed Risk Reduction Rule and future Fisheries Service actions over the next 10 years related to other fisheries to achieve its goal of preventing further decline of the NARW population.<sup>217</sup> With only 360 individuals remaining, the species does not have 10 years to wait; viable and effective measures must be put in place immediately as required under the MMPA and ESA.

Since the Proposed Risk Reduction Rule is utterly inadequate for the task at hand (and could be weakened or paired down in the final version of the rule), the Draft BiOp and ITS also fail to meet the requirements of the ESA and MMPA. The MMPA and ESA are intended to work in tandem to protect endangered marine mammals. Congress intended that the decision processes under the two statutes “be coordinated to the maximum extent possible,”<sup>218</sup> and manifested that intention by incorporating the MMPA into the ESA’s incidental take statement requirement.<sup>219</sup> But the Draft BiOp and the Proposed Risk Reduction Rule appear to be misaligned in ways that will have serious consequences for the species.

A full discussion of the shortcomings of the Draft BiOp, ITS, and NARW Conservation Framework can be found in Oceana’s Comment Letter on the Draft BiOp, which was submitted to the agency on February 19, 2021 and is attached here as Appendix III.

#### **V. COMMENTS ON THE STRATEGIES PROPOSED IN THE RANGE OF ALTERNATIVES**

##### **A. Trawling Up**

Every vertical line in the water increases the entanglement risk for NARWs. Oceana strongly supports the use of trawling up requirements as one method to reduce the number of vertical lines. When combined with a line cap (as discussed below), trawling up measures encourage efficiency in the fisheries, allowing the fisheries to continue operating while minimizing the risk of vertical line entanglement. As acknowledged in the Draft EIS, however, trawling up requirements cannot allow for the use of stronger line in either the vertical or ground lines, which increases the risk of serious injury or mortality as a result of entanglement, especially with respect to very long trawls and entanglements with NARW juveniles and calves.<sup>220</sup>

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<sup>216</sup> Draft BiOp.

<sup>217</sup> Draft BiOp at 24, Table 2 – Actions to be taken under the Framework.

<sup>218</sup> See 132 Cong. Rec. H10453-02 (1986) (stating the 1986 amendments to the ESA “reflect the changes to the MMPA and ... clarify the relationship between the two statutes. It is intended that the decision processes under the involved statutes be coordinated and integrated to the maximum extent practicable.”).

<sup>219</sup> 16 U.S.C. § 1536(b)(4).

<sup>220</sup> Draft EIS Vol. I at 5-161, 9-297.



## **B. Line Cap**

Oceana strongly supports the use of a line cap to further incentivize efficiency in the fisheries and reduce the number of vertical lines threatening NARWs. A line cap would provide a concrete metric for vertical line reduction, which the Fisheries Service could compare against current baseline vertical line levels. A line cap would allow the Fisheries Service to better track implementation of the Proposed Risk Reduction Rule and hold the fisheries accountable, which in turn would encourage the fisheries to adopt trawling up measures at an increased pace. A 50% line cap reduction would reduce entanglement risk by 45% in federal waters, making this one of the most effective strategies analyzed in the Draft EIS.<sup>221</sup>

The Fisheries Service acknowledged in the Draft EIS that trawling up alone will not be sufficient to reduce vertical line numbers without a cap on the total number of lines.<sup>222</sup> The Draft EIS states that “without a constraint on the total number of lines that can be fished, such as that suggested in Alternative Three, there is no mechanism to prohibit latent effort from being activated. Many fishermen who hold lobster licenses do not actively fish at all, and many active fishermen do not fish all of the traps that have been allocated to them.”<sup>223</sup> The Fisheries Service should incorporate a line cap into the Proposed Risk Reduction Rule to hold the industry accountable and ensure that trawling up requirements result in a concrete, measurable decrease in vertical lines.

## **C. Time-Area Management**

The most effective strategy to minimize fishery bycatch and entanglements is to avoid interactions and minimize the effects of interactions that occur. To accomplish effective time-area management, regulations must shift fishing effort away from places and times where whales are present or expected. The Fisheries Service has used this strategy and explicit authority granted by the MMPA<sup>224</sup> to create management areas in U.S. waters, including existing static seasonal management areas in the ALWTRP.

### **1. Oceana Strongly Supports the Use of Static, Seasonal Area Management, Which Should Be Fully Analyzed in the Final EIS and Expanded in Any Final Risk Reduction Rule**

Oceana strongly supports the use of new and expanded static, seasonal area management (SAM) in times and areas where NARWs have been documented in recent years. While the alternatives analyzed in the Draft EIS include static SAM, the proposed closures are far too short and do not cover current known aggregations of NARWs.<sup>225</sup>

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<sup>221</sup> Draft EIS Vol. I at 6-220.

<sup>222</sup> *Id.* at 5-139.

<sup>223</sup> *Id.*

<sup>224</sup> 16 U.S.C. § 1387(f)(9).

<sup>225</sup> Draft EIS Vol. I at 3-62.

In particular, Southern New England static SAM should be expanded to account for NARW sightings south of Nantucket and Martha's Vineyard, which regularly trigger the vessel speed management areas year round. The area south of Nantucket and Martha's Vineyard is just one example of the areas and times that should be included within the static SAM strategies analyzed in the Final EIS and included in any final Risk Reduction Rule. Other areas that should be considered include offshore areas of New York, New Jersey, and Virginia. More broadly, the Draft EIS should be expanded to consider a full range of areas and times when NARWs have been observed and/or are expected to be present. A series of time-area management proposals based on different criteria were proposed to the ALWTRT in October 2018, and Oceana encourages the Fisheries Service to include each of these areas in the alternatives considered in the Final EIS and in any final Risk Reduction Rule.<sup>226</sup>

The Draft EIS should also be expanded in the Final EIS to consider the establishment of an annual review process to evaluate potential management areas and establish new static seasonal management areas in regions and seasons where NARWs congregate. This review process should include a schedule for the review as well as criteria to evaluate and a method to monitor the efficacy of the areas for NARW protection.

Oceana also supports the Fisheries Service's use of vertical line closures in static SAM locations, as this approach will encourage innovation and adoption of ropeless fishing technology. These ropeless areas will need to be monitored closely, however, to ensure compliance and to protect against vessel strikes in areas that were previously closed to all fishing activities. The Draft EIS should be expanded in the Final EIS to evaluate strategies for monitoring and preventing vessel strikes in ropeless SAM locations.

## **2. Oceana Strongly Supports the Use of Dynamic Area Management, Which Should Be Incorporated Into the Alternatives Analyzed in the Final EIS and In Any Future Risk Reduction Rule**

Oceana strongly supports the use of dynamic area management (DAM) as an effective tool to protect NARWs. The unpredictability of whale movements makes reactive closures in response to sightings the most efficient method to preempt unforeseen entanglements.<sup>227</sup> DAM also minimizes disruptions to fishing activities when whales are not present.

The Fisheries Service rejected DAM from consideration in the Draft EIS, because it is "not currently feasible with [the] regulatory process."<sup>228</sup> This rationale is unclear and conflicts with the purpose of the NEPA alternatives analysis. As noted above, it is unclear what "[n]ot currently feasible with regulatory process" means. The Fisheries Service did not indicate what regulatory process this statement refers to, or why DAM is infeasible. The Fisheries Service's

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<sup>226</sup> HSUS et al., *Proposal for October 2018 Atlantic Large Whale Take Reduction Team Meeting September 24, 2018*, NOAA Fisheries (October 2018).

<sup>227</sup> See DAM Final Rule, 67 Fed. Reg 1133.

<sup>228</sup> Draft EIS Vol. I at 3-79.

vague and indecipherable dismissal of this option violates the agency's obligation under NEPA to take a "hard look" at the impacts of its actions.<sup>229</sup> It is also arbitrary and capricious under the APA.<sup>230</sup>

DAM is a proven management tool. The Fisheries Service previously conducted DAM from 2002 to 2009.<sup>231</sup> Canada has successfully utilized DAM to protect whales since 2018.<sup>232</sup> In fact, as dynamic management once again proved effective in 2020, resulting in zero observed entanglements, Canada just announced it will be continuing its dynamic management efforts for 2021 to reduce and ideally prevent entanglement in fishing gear.<sup>233</sup> As noted in the attached Brilliant Opinion, the absence of DAM in the chosen alternative is a significant limitation, and DAM deserves a more complete assessment and consideration as a NARW risk reduction alternative.<sup>234</sup> Without DAM, the Proposed Risk Reduction Rule may be unable to respond to new data or changes in the distribution of NARW.<sup>235</sup>

Significant advances in monitoring technologies since 2009 would further increase the effectiveness and efficiency of a modern DAM program. Moreover, the Draft EIS supports the feasibility of some form of DAM, by including a dynamic management strategy in Alternative 3, which would require the dynamic closure of the LMA1 Seasonal Restricted Area when certain triggers are met.<sup>236</sup>

Although more complicated to administer than static SAM, DAM clearly benefits fisheries. Focused DAM can be much smaller and of shorter duration than SAM. Further, DAM are based on current presence of NARWs and avoid the risk of managing fishing where NARWs are not present. In recent research, dynamic management strategies have been found to "both support economically viable fisheries and meet mandated conservation objectives in the face of changing ocean conditions."<sup>237</sup>

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<sup>229</sup> See *Marsh*, 490 U.S. at 374.

<sup>230</sup> See *Motor Vehicle Mfrs.*, 463 U.S. at 43; 5 U.S.C. § 706(2); *Anglers*, 139 F.Supp.3d at 118.

<sup>231</sup> DAM Final Rule, 67 Fed. Reg. 1133 (Jan. 9, 2002); SAM Interim Final Rule, 67 Fed. Reg. 1142 (Jan. 9, 2002); SE Modifications Final Rule, 72 Fed. Reg. 34,632 (June 25, 2007).

<sup>232</sup> 67 Fed. Reg. 20,699 (Apr. 26, 2002); 67 Fed. Reg. 44,092 (July 1, 2002); 67 Fed. Reg. 71,900 (Dec. 3 2002); 68 Fed. Reg. 69,968 (Dec. 3, 2003); 74 Fed. Reg. 7824 (Feb. 20, 2009); Fisheries and Oceans Canada, *Backgrounder: Protecting North Atlantic Right Whales*, (February 15, 2019), <https://www.canada.ca/en/fisheries-oceans/news/2019/02/backgrounder-protecting-north-atlantic-right-whales.html>.

<sup>233</sup> Transport Canada, *Backgrounder: Protecting North Atlantic Right Whales*, (Feb. 18, 2021), <https://tc.canada.ca/en/backgrounder-protecting-north-atlantic-right-whales-0>.

<sup>234</sup> Brilliant Opinion at 9.

<sup>235</sup> *Id.*

<sup>236</sup> See Draft EIS Vol. I at 3-71; see also FR Notice at 86,882 ("NMFS is seeking comment on a proposal to provide that the Regional Administrator may implement the LMA1 closures only if certain triggers are met in the future. This would require the Regional Administrator to examine the available information in advance of October in any given year and determine whether a closure is necessary.")

<sup>237</sup> E. L. Hazen et al., *A dynamic ocean management tool to reduce bycatch and support sustainable fisheries*, Sci. Adv. 4, eaar3001 (May 30, 2018), <https://advances.sciencemag.org/content/4/5/eaar3001>.

As a proven management tool, DAM should not have been excluded from the Draft EIS alternatives analysis based on regulatory infeasibility. NEPA requires the Fisheries Service to consider and evaluate in the Draft EIS reasonable alternatives that would fulfill the purpose of the Proposed Risk Reduction Rule.<sup>238</sup> DAM is an effective tool to prevent whale mortalities and injuries. Prior and current uses of this management tool demonstrate its regulatory feasibility. DAM should not have been refused consideration in the Draft EIS simply because certain updates to the Fisheries Service's current regulatory process would be required for successful implementation. The Proposed Risk Reduction Rule is the best mechanism for updating the current regulatory process to support DAM.

The Fisheries Service should strongly consider incorporating a DAM program into the Final EIS and in any final Risk Reduction Rule. At a minimum, the final rule should give the Fisheries Service emergency authority to close areas when NARW aggregations appear.

#### **D. Weak Rope**

Oceana does not support the proposed requirement to use weak rope, line inserts, sleeves, or other contrivances ("weak rope") that theoretically allow NARWs to break free from entanglements. The reliance on weak rope is flawed in two ways that make it unsuitable for use in regulation.

First, the use of weak rope, with a breaking strength of 1,700 lbs. (771 kg), is expected, on the basis of just two studies – neither of which involved direct testing, to reduce entanglements of *adult* NARWs that can produce enough power to separate the weak rope. Aside from being questionable as best scientific information available, the two studies are insufficient to make weak rope the central management measure implemented under the Proposed Risk Reduction Rule. Weak rope has not been proven to be effective for juveniles and calves and cannot be part of a comprehensive risk management plan.<sup>239</sup> Protecting all life stages is critical for the species' recovery. Therefore, any management strategy must provide protection for each life stage to effectively meet conservation goals and cannot be focused on benefits to just one life stage.

Second, while reducing mortality and significant injury by using weak rope will reduce the length and severity of entanglement under the MMPA requirements,<sup>240</sup> the Proposed Risk Reduction Rule cannot and should not ignore the more stringent ESA requirement to avoid entanglements to protect endangered NARWs from sublethal "takes."<sup>241</sup> Weak rope will do nothing to reduce the sublethal "take" of listed NARWs, as they will nonetheless have

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<sup>238</sup> *Anglers*, 139 F.Supp.3d at 118.

<sup>239</sup> Arthur LH, McLellan WA, Piscitelli MA, Rommel SA, Woodward BL, Winn JP, Potter CW, Pabst DA. 2015. *Estimating maximal force output of cetaceans using axial locomotor muscle morphology*, Marine Mammal Science May 6, 2015, <https://onlinelibrary.wiley.com/doi/abs/10.1111/mms.12230> (last visited Feb. 28, 2021).

<sup>240</sup> 16 U.S.C. §§ 1361 et seq.

<sup>241</sup> "Take," as defined under the ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C § 1532(3)(19).

interactions with gear that qualify as a “take,” because the entanglement and break event, if it occurs, will cause harm to the individual NARW.<sup>242</sup> As noted in the attached Brilliant Opinion, the harmful sublethal effects of entanglements are increasingly linked to the poor health and diminishing productivity of NARWs.<sup>243</sup> The Proposed Risk Reduction Rule fails to address the problem that approximately 25% of the NARW population is entangled every year.<sup>244</sup> Correcting the poor health and low reproductive rate of NARWs caused by this entanglement is as necessary for the species' recovery as preventing deaths.<sup>245</sup>

Furthermore, as detailed in the attached Brilliant Opinion, the central assumption behind the Fisheries Service's reliance on weak rope as a management tool – that reducing the severity of injury from an entanglement is the management equivalent of reducing the likelihood of entanglement – is unsupported and contrary to current knowledge of risk mitigation, which focuses on preventing injury rather than mitigating it.<sup>246</sup> As a result, weak links, weak inserts, and weak rope cannot be relied upon to reduce the mortality or serious injuries of NARWs.<sup>247</sup>

Oceana has argued against the use of weak rope in its scoping comments on this rulemaking and repeats that opposition here.<sup>248</sup> Weak rope is not a sufficient measure to reduce ESA takes and the Fisheries Service must find additional means to reduce risk by implementing other management measures that avoid interactions.

## **E. Gear Marking**

Oceana supports gear marking and fully acknowledges that gear marking may prove useful for data collection to inform future fishery management to protect NARWs from entanglement.<sup>249</sup> Gear marking is not effective, however, as a management measure to achieve the purpose and need outlined in the Draft EIS.<sup>250</sup> Moreover, gear marking may distract the Fisheries Service and stakeholders from the urgent need for immediate action to reduce entanglement risks to NARWs.

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<sup>242</sup> *Id.*

<sup>243</sup> Brilliant Opinion at 8; *see also* Moore et al., *Assessing North Atlantic right whale health: threats, and development of tools critical for conservation of the species*, Dis. Aquat. Org. Vol. 143: 205-226 (Feb. 25, 2021) (“The role of sub-lethal entanglement drag in reducing NARW health and fecundity should be a major consideration in comparing the efficacy of potential mitigation measures. Thus, while 1700 lb (~773 kg) breaking strength rope may reduce mortality and severe injury, it will continue to be a source of morbidity.”).

<sup>244</sup> *Id.*

<sup>245</sup> *Id.*

<sup>246</sup> *Id.* at 6.

<sup>247</sup> *Id.*

<sup>248</sup> Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019), attached as Appendix II.

<sup>249</sup> Draft EIS Vol. I at 5-177.

<sup>250</sup> Draft EIS Vol. I at 2-26, 2-28.

## **VI. COMMENTS ON OTHER ALTERNATIVES CONSIDERED BUT REJECTED OR NOT INCLUDED**

### **A. The Fisheries Service Rejected a Long List of Effective Management Tools and Strategies for Invalid Reasons**

The Fisheries Service rejected a long list of proven management tools and strategies based on rationales that are both invalid under NEPA, the ESA, and the MMPA, and arbitrary and capricious under the APA. As discussed above, the Fisheries Service rejected numerous effective management strategies, including line reductions, enhanced weak line requirements, and static area closures, for the unclear and invalid reason that they were “unpopular with stakeholders.”<sup>251</sup> Moreover, the Fisheries Service rejected dynamic area management because it is “[n]ot currently feasible with regulatory process.”<sup>252</sup> This statement is both unclear and factually inaccurate. Dynamic area management is a proven, feasible management tool. Lastly, the Fisheries Service rejected certain line reduction measures because it would “prefer fishery management to be done by [the Atlantic State Marine Fisheries Commission/New England Fisheries Management Council].”<sup>253</sup> This rationale violates the Fisheries Service’s obligation to assess reasonable alternatives under NEPA whether or not other agencies would be involved in implementing such alternatives. The Draft EIS should be expanded to consider all of the proven management tools and strategies that were rejected for these invalid reasons.

### **B. The Fisheries Service Should Expand the Draft EIS to Consider a Broader Range of Enhanced Monitoring Measures**

The Draft EIS fails to evaluate a reasonable range of monitoring strategies to track the effectiveness of the Proposed Risk Reduction Rule and inform decisions about further management. As noted in the attached Brilliant Opinion, the Draft EIS provides few details on monitoring; however, monitoring compliance and outcomes is critical for the success of the ALWTRP. Effective monitoring will not only require a large decrease in risk but also a large increase in monitoring.<sup>254</sup>

Accurate, precise, and timely monitoring of interactions with protected species are fundamental elements of both the MMPA and the ESA. Effective monitoring allows the Fisheries Service to monitor takes against the PBR (under MMPA) and ITS (under ESA) levels to determine when further management action is necessary and to ensure that affected fisheries are achieving their goals and meeting their obligations under the law. Currently, monitoring of the fisheries under the ALWTRP is poor, with low-quality fundamental information about catch, effort, bycatch and other characteristics of the fisheries. The Draft EIS should be expanded to consider additional monitoring measures that would significantly improve current fisheries monitoring, including spatial monitoring, AIS, and catch and bycatch monitoring.

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<sup>251</sup> Draft EIS Vol. I at 3-78 to 3-82.

<sup>252</sup> *Id.* at 3-79.

<sup>253</sup> *Id.*

<sup>254</sup> Brilliant Opinion at 9.

## 1. Spatial Monitoring

The Draft EIS should be expanded to evaluate spatial monitoring as a potential strategy for tracking the effectiveness of the Proposed Risk Reduction Rule. Knowing where and when fishing is taking place is critical for understanding the risk of entanglement to large whales. While vessel monitoring systems have been the norm in the past in other fisheries in the Northeast region of the United States, lower-cost spatial monitoring technologies are available today that will provide necessary fine-scale information for informing fishery management.

## 2. Automatic Identification System

The Draft EIS should be expanded to evaluate the use of AIS to track vessel locations and movements. This technology provides high-quality, real-time information about fishing activity and is already widely used around the world. AIS is currently required on U.S. commercial fishing vessels 65 feet and longer while operating within U.S. territorial seas. AIS should not have been refused consideration in the Draft EIS based on the Fisheries Service's rationale that it is too "costly."<sup>255</sup> A basic AIS tracking systems costs between \$500 and \$1,300, while a more advanced AIS system costs between \$750 and \$3,500.<sup>256</sup> AIS devices also have no ongoing operating costs. In relation to the overall size and value of the lobster fishery (approx. \$600 million), for example, the cost of AIS technology is miniscule, especially in light of the benefits it provides in the form of real-time fishery monitoring not to mention safety to prevent vessel collisions.

## 3. Catch and Bycatch Monitoring

The Draft EIS should be expanded to consider improvements to independent catch and bycatch monitoring of the U.S. trap/pot fisheries. As discussed above, accurate, precise and timely monitoring of interactions with protected species are fundamental elements of both the MMPA and the ESA. The Fisheries Service has recognized the need to improve monitoring of Northeast region trap/pot fisheries with the recent inclusion of these fisheries in the list of "gear modes" that receive observer coverage under the Northeast Region Standardized Bycatch Reporting Methodology.<sup>257</sup> At this time, however, coverage for these portions of the fishery is exceedingly low and does not generate information that is useful for informing management of the fishery or about interactions with protected species. For example, in the current observer scheduling year, the trap/pot fisheries in the entire Northeast region are scheduled to receive a total of 346 observer days to cover nearly 37,000 fishing days reported on Vessel Trip

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<sup>255</sup> *Id.* at 3-81.

<sup>256</sup> U.S. Department of Homeland Security, U.S. Coast Guard, Navigation Center, *AIS Frequently Asked Questions #14 – What are the differences between AIS Class A and B devices?, Shipborne AIS Class Comparison*, [https://www.navcen.uscg.gov/pdf/AIS\\_Comparison\\_By\\_Class.pdf](https://www.navcen.uscg.gov/pdf/AIS_Comparison_By_Class.pdf) (last visited Feb. 26, 2021).

<sup>257</sup> NOAA, *NOAA Technical Memorandum NMFS-NE-262: 2020 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation*, (April 2020) <https://repository.library.noaa.gov/view/noaa/25522>.

Reports.<sup>258</sup> This represents less than one percent of fishing trips and cannot be used as a statistically robust source to provide information about catch or bycatch in the fishery.

#### 4. New Monitoring Technologies

The Draft EIS should also consider the implementation of new monitoring technologies that are becoming more widely available or that may become available in the future. These technologies include passive acoustic monitoring, drones, electronic monitoring, and satellite monitoring of NARW populations. The deployment of innovative monitoring technologies should be included in a comprehensive monitoring plan to fulfill the requirements of the ESA and MMPA.

Recent advances in technology hold significant promise to increase the effectiveness of NARW protection efforts. It is important to emphasize, however, that no one technology is a panacea, and these different technologies should be used in concert to provide a more complete picture of NARW behavior. Three major ways in which new technologies can help protect NARWS include: (i) by monitoring and tracking whale locations, (ii) by collecting data to evaluate the effectiveness of both voluntary and mandatory restrictions, and (iii) by monitoring vessel operations.

First, to effectively protect NARWs, it is critical to understand their behavior and distribution patterns—especially given that many protective measures are based on time and place restrictions. In particular, passive acoustic monitoring is a useful tool that allows for the detection of whales frequenting locations that are hard to discern through mere visual observation and surveys. Passive acoustic recorders can be moored to create a network to monitor NARW locations. Unlike aerial monitoring, such a network can continuously monitor for whale presence, and can do so regardless of weather and sea conditions.<sup>259</sup> Recent studies using this technology have yielded a wealth of information on NARW location and behavior.<sup>260</sup>

In addition to installing a fixed monitoring network, underwater autonomous vehicles can also be deployed to monitor for whales. For example, underwater autonomous drones—such as Slocum gliders<sup>261</sup>—can be deployed with passive monitoring technology and used to provide information on whale location. One recent study even found that ocean gliders could be used to

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<sup>258</sup> *Id.*

<sup>259</sup> See NOAA Fisheries, *Tracking Technology: The Science of Finding Whales*, <https://www.fisheries.noaa.gov/feature-story/tracking-technology-science-finding-whales> (Feb. 5, 2018).

<sup>260</sup> Genevieve E. Davis et al., *Long-Term Passive Acoustic Recordings Track the Changing Distribution of North Atlantic Right Whales (*Eubalaena glacialis*) from 2004 to 2014*, *Nature: Scientific Reports* 7, 13460, at 5 (Oct. 18, 2017) [hereinafter Davis et al.], <https://www.nature.com/articles/s41598-017-13359-3>.

<sup>261</sup> NOAA National Ocean Service, *What is an ocean glider?*, <https://oceanservice.noaa.gov/facts/ocean-gliders.html> (last updated Feb. 26, 2021); see also Woods Hole Oceanographic Institute, *Slocum Glider*, <https://www.whoi.edu/what-we-do/explore/underwater-vehicles/aavs/slocum-glider/> (last visited May 9, 2020).



gather and share information regarding whale locations in near real-time.<sup>262</sup> Under the protocol used in the study, the ocean gliders can transmit information about the tonal sounds of baleen whales to shore in near-real time, and then a human analyst can review the information to confirm the presence of the whale.<sup>263</sup> The results can then be shared with the public and interested parties and stakeholders.<sup>264</sup> The study found that using this protocol, false positive detection rates on a daily time scale were 0% for all whales, including NARWs, and missed detection rates ranged from 17-24%.<sup>265</sup> These results indicate that gliders equipped with passive acoustic monitoring technology can be used to accurately determine the presence of NARWs in near-real time, and could thus be used by state and federal agencies to adopt temporary protections for NARWs in the vicinity. For instance, the Fisheries Service could collect such data to determine whether it is appropriate to designate a DAM.

In addition to ocean gliders, saildrones—which are unmanned surface vehicles “that combine wind-powered propulsion technology and solar-powered meteorological and oceanographic sensors to perform autonomous long-range data collection missions”<sup>266</sup>—can also be equipped with acoustic monitoring and used to track whales.<sup>267</sup> Such autonomous technologies have the potential to provide valuable data to supplement and enhance the understanding of whale distributions.

Technologies for conducting aerial surveys are also evolving and becoming increasingly available. Advances are being made in drone technology that could supplement the survey efforts currently being undertaken by airplane.<sup>268</sup> In addition, satellite tracking is increasingly being used as a tool to supplement existing whale tracking methods. For example, scientists from the New England Aquarium are partnering with an engineering firm to integrate satellite data with sonar and radar data, and then input the data into an algorithm to track whale movements and create a probability map of where whales are likely to travel.<sup>269</sup> Indeed, the falling cost of

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<sup>262</sup> Mark F. Baumgartner et al., *Slocum Gliders Provide Accurate Near Real-Time Estimates of Baleen Whale Presence From Human-Reviewed Passive Acoustic Detection Information*, *Frontiers in Marine Science* 7, at 1 (Feb. 25, 2020), <https://www.frontiersin.org/articles/10.3389/fmars.2020.00100/full>.

<sup>263</sup> *Id.*

<sup>264</sup> *Id.*

<sup>265</sup> *Id.* at 6.

<sup>266</sup> Saildrone, *Wind-Powered Ocean Drones*, <https://www.saildrone.com/technology> (last visited May 9, 2020).

<sup>267</sup> Saildrone, *How Unmanned Surface Vehicles Use Sound to Count Fish, Whales* (Nov. 10, 2017), <https://www.saildrone.com/news/usv-use-sound-count-fish-locate-whales>; Saildrone, *Wind-Powered Ocean Drones*, <https://www.saildrone.com/technology> (last visited May 9, 2020); NOAA Fisheries, *Tracking Technology: The Science of Finding Whales*, <https://www.fisheries.noaa.gov/feature-story/tracking-technology-science-finding-whales> (Feb. 5, 2018).

<sup>268</sup> Jessica Boddy, *Drones can take scientists to strange new places—like inside whale snot*, *Popular Science* (May 2, 2018), <https://www.popsci.com/drones-science-research-whale-snot/>; Josy O'Donnel, *How Technology is Helping Whale Conservation*, *Ocean Alliance*, <https://whale.org/how-technology-is-helping-whale-conservation/> (last visited May 11, 2020).

<sup>269</sup> Jennifer Leman, *Why Scientists are Counting Whales from Space*, *Popular Mechanics* (Jan. 6, 2020), <https://www.popularmechanics.com/science/animals/a30420762/satellites-save-whales/>.

satellite imaging has provided a new source of valuable information to scientists regarding whale movements and behavior.<sup>270</sup>

In addition to improved monitoring of whales, technological advancements also offer the ability to better monitor key vessel parameters—such as identity, location, and speed—to determine if vessels are complying with measures adopted to protect NARWs. For instance, Oceana, in partnership with Google and SkyTruth, has developed Global Fishing Watch, a publicly available online tool to track vessel identity and movements.<sup>271</sup> Global Fishing Watch uses data from the AIS, a GPS-like device that is required on large vessels in order to avoid collisions.<sup>272</sup> Global Fishing Watch uses sophisticated computer algorithms, machine learning, and cloud computing to process more than 60 million points of information per day from more than 300,000 vessels to identify the name of the ship, type of ship, size, and where and when the ship is fishing, among other things.<sup>273</sup> Global Fishing Watch makes this vessel tracking information available to the public through an online interactive map, and offers downloadable data in near real time, with data from January 1, 2012 to about 72 hours ago.<sup>274</sup> These advancements in computing power and data processing can be used to monitor compliance with regulations designed to protect NARWs and to facilitate federal and state enforcement by identifying instances in which vessels fail to comply.

Oceana understands that monitoring rare events like NARW interactions with fishing gear is a difficult task. Because of the statutory obligations to monitor takes, however, the Final EIS must do more to explore improvements to independent monitoring of the U.S. trap/pot fisheries.

## CONCLUSION

In light of Oceana’s interest in protecting NARWs from entanglement in fishing gear, Oceana appreciates the opportunity to provide comments on the Proposed Risk Reduction Rule and the related Draft EIS. After careful review of the Proposed Risk Reduction Rule and the Draft EIS, Oceana does not believe that the measures in the Proposed Risk Reduction Rule are sufficient to save NARWs from extinction, nor do the measures meet the legal requirements of the MMPA or the ESA. In addition, the related Draft EIS fails to comply with NEPA. And, both documents appear to contain “arbitrary and capricious” elements in violation of the APA. Moreover, the Proposed Risk Reduction Rule must be designed to reduce takes to levels lower than the PBR, regardless of economic impacts.<sup>275</sup>

In order to correct the inadequacies of the Proposed Risk Reduction Rule and the Draft EIS, Oceana urges the Fisheries Service to take the following actions:

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<sup>270</sup> Josy O’Donnel, *How Technology is Helping Whale Conservation*, Ocean Alliance, <https://whale.org/how-technology-is-helping-whale-conservation/> (last visited May 11, 2020).

<sup>271</sup> Global Fishing Watch, *Partners*, <https://globalfishingwatch.org/partners/> (last visited May 8, 2020).

<sup>272</sup> Global Fishing Watch, *How it Works*, <https://globalfishingwatch.org/map-and-data/technology/> (last visited May 8, 2020).

<sup>273</sup> *Id.*

<sup>274</sup> *Id.*

<sup>275</sup> 16 U.S.C. § 1387(f)(2).

- The Fisheries Service should significantly revise the Proposed Risk Reduction Rule and Draft EIS to aim for a more ambitious risk reduction target and to incorporate measures that will adequately recover the NARW population, including the use of proven management tools such as dynamic area management, gear and vertical line reduction, geographic and temporal expansion of static, time-area management, broader use of AIS, better fishery monitoring and reporting, and incentives to promote testing and adoption of ropeless gear;
- If the Fisheries Services does not significantly revise the Proposed Risk Reduction Rule and Draft EIS as detailed above, the agency should withdraw the Proposed Risk Reduction Rule and reformulate a stronger rule and Draft EIS by assessing a broader range of more effective alternative measures to protect NARWs; and
- If the Fisheries Service withdraws the Proposed Risk Reduction Rule and Draft EIS, while a new, stronger rule is being developed, the agency should immediately implement interim emergency management measures that immediately reduce mortality and serious injury below the PBR level using authority under the MMPA, ESA, and the MSA.

We appreciate the opportunity to provide input and thank you for your time. We look forward to working with and supporting the agency as it strengthens these proposals.

Sincerely,



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APPENDIX I

Evaluation of National Marine Fisheries Service's Proposed Amendment to the ALWTRP of  
Dr. Sean Brilliant (Feb. 26, 2021)

*(See attached.)*

## Evaluation of the National Marine Fisheries Service's Proposed Amendment to the Atlantic Large Whale Take Reduction Plan (ALWTRP)

Dr. Sean Brilliant, SBrilliant@dal.ca  
February 26, 2021

### I. Purpose

I have been asked to provide my professional evaluation of the National Marine Fisheries Service's (NMFS) December 31, 2020 proposed rule (Proposed Risk Reduction Rule) to amend its Atlantic Large Whale Take Reduction Plan (ALWTRP) and the related Draft Environmental Impact Statement (Draft EIS).

#### A. Qualifications

I am an experimental marine ecologist and a professional conservation biologist with experience working on conservation issues since 1993. Since 2007 I have focused particularly on fisheries entanglement issues and North Atlantic right whales (NARW), with the goal of finding ways to reduce entanglement risk to large whales while allowing fisheries to continue profitably. My work has involved engaging in and leading dialogue with all sectors involved in entanglement mitigation, carrying out and publishing scientific investigations on NARW conservation (listed in my attached C.V.), and collaborating with a variety of partners including fishers, scientists, and government managers to identify and to evaluate potential actions to achieve this goal. Since I began working on this topic, I have actively participated in U.S.-based workshops and meetings related to NARW conservation, including meetings of the Atlantic Large Whale Take Reduction Team (as an observer), and I have remained current on the research and programs that have been developed to lead and to support these efforts.

#### B. Materials Reviewed

To complete my assessment, I reviewed numerous reports, including:

- the Proposed Risk Reduction Rule published in the Federal Register,
- the Draft Environmental Impact Statement (both volumes) (Draft EIS),
- the Draft Biological Opinion (Draft BiOp),
- the NARW Conservation Framework,
- the PowerPoint slides from NMFS' presentation to the New England Fishery Management Council on January 28, 2021,
- the PowerPoint slides from NMFS' presentation regarding the whale population model used in the Draft BiOp for the Atlantic Scientific Review Group on February 12, 2021, and
- the peer review reports evaluating the Decision Support Tool and the Vertical Line Model/Co-Occurrence Model.

In addition, I attended meetings on January 28 and February 12, 2021 where NMFS staff presented information about some of these materials, as well as the public hearing on Feb 24, 2021. I reviewed all these materials in the limited time provided for review and comment.

#### C. Presented Questions

The overarching question I have been asked to answer is: will the Proposed Risk Reduction Rule (i.e.,

Alternative Two) reduce the “take” of NARW to, or below, their Potential Biological Removal (PBR), thus allowing the population of NARW to recover.

Additional questions provided and addressed include:

- Is the 60% risk reduction target set by NMFS appropriate and sufficient to achieve the PBR, or should the agency be more ambitious in its risk reduction target?
- What are the implications of the fact that the Proposed Risk Reduction Rule is based on outdated data from 2017?
- How effective are the management tools proposed by NMFS in Alternatives Two and Three at reducing the risk of NARW entanglement? Specifically, have weak rope, trawling up, gear marking, line caps, ropeless gear and time-area closures been proven to be effective tools for reducing NARW entanglement risk?
- Is dynamic area management, which was rejected in the Proposed Risk Reduction Rule, an effective tool for reducing NARW entanglement risk?
- Are the Decision Support Tool (DST) and underlying models reliable tools for making the policy decisions in the Proposed Risk Reduction Rule? What improvements could be made to the DST and underlying models to make them more reliable?

#### D. Summary of Assessment

Following my in-depth review of the materials mentioned above, I conclude that this proposed rule is very unlikely to accomplish the goal of reducing the “take” of NARW to, or below, their PBR.

Numerous observations support this conclusion and are presented within the sections that follow. The observations listed here are, however, the main features that support the assessment:

- 1) The use of PBR is required by the Marine Mammal Protection Act (MMPA); however, I believe the shortcomings of PBR need to be carefully considered as it is ultimately the goal of the Proposed Risk Reduction Rule. The use of PBR as a conservation goal must account for its inherent assumptions and variability, but I do not see evidence of this in this process.
- 2) A variety of methods were undertaken to determine the reduction of risk needed by US fisheries to achieve PBR for NARW, but the lowest calculated risk reduction value (60%) was selected as the target despite the most convincing consideration of the data indicating the target should be considerably higher (83%).
- 3) The Decision Support Tool (DST) and the models underlying the DST used to predict the result of various proposed regulatory actions is fraught with uncertainty and based on untested and unstated assumptions. The most serious flaw of this tool is the inclusion of a gear threat assessment which is an opinion-based, qualitative assessment presented as an objective quantitative measurement. It is used in a manner that disproportionately influences the results of the assessment with too little scientific evidence to justify its inclusion.

To ensure a reasonable chance of reducing NARW mortality to below PBR, it is strongly advised that a more ambitious risk reduction target be adopted (e.g., 83% based on estimates in Draft EIS Section 2.1.5) and that the predicted reductions of risk by proposed regulatory actions be made more realistic by removing the contribution of weak rope. The implementation of weak rope should not account for

any reduction in risk, as this relationship is an untested premise. An overestimate of the value of weak rope will result in the extinction of NARW.

I am acutely aware of the need for the amendments to the ALWTRP to reduce entanglement rates and to allow scientific research to guide regulatory actions. I do not believe the tools evaluated here in support of the amendments to the ALWTRP lack value. But their uses in this process are not adequately accounting for the limitations, assumptions, and variability of each tool. By constructing a course of action without considering the contribution of uncertainty from each tool to the next, NMFS is failing to take a precautionary approach. From among the range of estimated risk reductions needed to save NARW, NMFS is aiming for the lowest (60% risk reduction), and from among the range of possible results of regulatory actions, NMFS is assuming the most optimistic outcomes. In its current state, therefore, it is unlikely this plan will accomplish its goal.

## II. Assessment

In the assessment that follows, I will briefly discuss the history of the ALWTRP as well as the current proposed amendment. I then provide my evaluation and analysis of the shortcomings of PBR, the selection of the risk reduction goal, the Decision Support Tool and underlying models, including the Vertical Line Analysis/Co-Occurrence Model, the Whale Density Model, and the Gear Threat Estimate, the proposed options for regulatory action, and the NARW Conservation Framework as well as other important, yet overlooked, considerations, including sublethal effects of non-serious injury, vessel strikes, and dynamic area management.

### A. History of the ALWTRP and the 2020 Proposed Amendment to the ALWTRP

The ALWTRP was first implemented in 1997 by NMFS in response to the need to reduce the incidental take of large whales, as required by the MMPA, and it has been modified several times since, most recently in May 2015 (80 FR 30367, May 28, 2015). The current proposal to modify the plan focuses on reducing the rate of mortality and serious injury to NARW from lobster and Jonah crab trap/pot gear in the Northeast Region Trap/Pot Management Area (Northeast Region) to below the PBR for this species. Two alternative sets of regulatory actions are presented, Alternative Two (the preferred agency action) and Alternative Three, as a part of a 10-year Conservation Framework to accomplish this. Risk mitigation efforts of each alternative suite of actions focuses on reducing the number of lines in the water and reducing the breaking strength of vertical lines of certain areas.

### B. Limitations of Potential Biological Removal (PBR)

The PBR is a requirement of the MMPA, however, I believe the assumptions and calculations of PBR need careful consideration, as it is ultimately the goal of the Proposed Risk Reduction Rule.

The PBR for NARW is so small that it need not be discussed in detail. Even in its current form which uses favorable estimates, this species cannot even tolerate the loss of one individual per year. This is a dire situation.

The PBR attempts to incorporate conservative values into its calculations, but for NARW, the best available science suggests that even these values are too favorable. PBR cannot be considered a precise target unless every variable used in its calculation is highly conservative. This is not the case in its use for NARW.



Following are other considerations about PBR and why the current form fails to use the best available science and, therefore, likely over-estimates a sustainable take:

The estimated maximum productivity used for NARW (0.04) is a large over-estimate, which could be sustained only theoretically, and not under recent conditions (Corkeron et al 2018). This over-estimate is also acknowledged in the US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments (Hayes et al. 2018b): “Single-year production has exceeded 0.04 in this population several times, but those outputs are not likely sustainable given the 3-year minimum interval required between successful calving events and the small fraction of reproductively active females.”

The method used by NMFS to estimate the minimum number alive, the lower value of the 60% credible interval about the median of the posterior estimate based on Pace et al (2017), is 457. This estimate is larger than other population estimates for NARW and 30% larger than the NARW Consortium estimate to the end of 2019 (i.e., 356; Pettis et al. 2021).

Although still a draft, the most recent 2020 Marine Mammal Stock Assessment Report (NOAA 2020) has been submitted to the Federal Register (<https://www.federalregister.gov/d/2020-26681>) and concludes that NARW have a PBR of 0.8. This decrease in PBR has been widely expected and acknowledged.

Finally, as the population of NARW continues to decline due to ongoing mortalities that are expected to continue even after the implementation of this proposed rule, the PBR will become smaller. Thus, during the proposed 10-year time frame for the NARW Conservation Framework to attempt to achieve its goal of the 2019 PBR, the PBR will have notably diminished even further by 2030. Precautionary measures must be taken now to avoid this outcome.

### C. Selection of the Risk Reduction Goal

After considering multiple methods of evaluation and apportionment of mortalities between Canada and the US, and despite numerous statements about the uncertainty and variability of the data (Draft EIS Section 2.15), the selected risk reduction goal (i.e., 60%) was the lowest of all the estimates, and is treated as a definitive value, despite extensive discussions and statements to the contrary. The reasons why this reduction target is unlikely to reduce NARW mortality to PBR include the following:

All literature and reports related to the Proposed Risk Reduction Rule (e.g., Draft EIS, Draft Biological Opinion, and NARW Conservation Framework) state that estimates of the number of mortalities and serious injuries for NARW are underestimates. Pace et al. (2021) confirmed this premise, showing that causes of death for NARW determined from carcasses are not representative of cause-specific mortality rates because of the large proportion of cryptic mortalities.

An acknowledgement and discussion about cryptic mortality in the Draft EIS (Section 2.1.5) concludes that the risk reduction target should be 83%, but this is then treated as the upper boundary of the necessary risk reduction. A recommended, precautionary approach is that 83% be considered the central estimate of the lower boundary and, therefore, a more suitable goal to ensure success.

#### D. The Decision Support Tool (DST) and Underlying Models

The Decision Support Tool (DST) is a model that estimates the relative risk to kill or seriously injure whales due to entanglements. It was developed to inform the selection of various management actions by estimating the resulting reduction in entanglement risk to whales. It defines this risk as the product of three factors:

- 1) the density of lines in space and time estimated by the NMFS Vertical Line Model/Co-Occurrence Model developed by Integrated Economics (IEc) since 2004;
- 2) the density of whales in space and time estimated by the modified habitat density model of Roberts et al (2016); and
- 3) an estimate of gear threat based on the breaking strength of ropes.

The DST was reviewed by Center for Independent Experts (CIE) in 2012 and again in 2019. Important limitations were identified during this process, several of which were repeated in each set of reviews. Although NMFS states that the DST was refined based on these recommendations (Draft EIS Section 3.3.4.1), there remain important limitations in each of the components that comprise this tool.

The conclusive weakness of this tool, which raises doubts about its results, is the inclusion of an estimate of gear threat. The incorporation of this concept into the DST significantly overemphasizes the contribution of rope strength to entanglement risk by assuming it is of equivalent value to estimates of the co-occurrence of whales and fishing gear. This estimated threat value of various gear configurations is based on opinions of approximately 50 individuals (an estimate, as Figures 4.7.1a and 4.7.1b in Appendix 3.1 Decision Support Tool Model Documentation appear to be missing). The resulting blend of selected personal opinions with quantitative estimates creates a product that appears to be knowledge (e.g., Draft EIS Figure 4.7.2.1g), but is neither objective, clear, nor based on scientific evidence.

One source from which this belief about gear threat arose was the Knowlton et al (2015) study, which investigated patterns between rope strength and the severity of injuries, species, and age in large whales. This study has been interpreted as evidence that rope strength is the determinant of entanglement injury, but it is not. This research corroborated the premise that rope strength is a factor that influences the resulting injuries from entanglements, but it goes no further. There are alternative explanations for the patterns identified by Knowlton et al. (2015) that have not yet been tested (e.g., spatial distribution of rope strengths, behavioral responses during entanglements). Until alternative explanations are rejected, the degree to which rope strength influences the severity of injury is unknown.

There are other limitations to the other two models that comprise the DST (i.e., the Vertical Line Model/Co-Occurrence Model and the Roberts et al. 2016 Habitat Density Model). Most notably, the inability of the DST to account for the propagation of uncertainty from the models, the absence of validation of model outputs, and the use of relatively small sets of available data all indicate that there is a large but unreported amount of uncertainty in the products of these two models. Thus, interpretation and use of their results must account for this uncertainty. Reviewers during each of the CIE reviews recommended caution in using the DST, but it is not evident that this recommendation is being followed. An example to support this concern is that the estimates produced by these models (e.g., Appendix 3.1 Decision Support Tool Model Documentation Fig 4.1.3.b) convey disproportionately greater precision than the data that inform the models (e.g., Appendix 3.1 Decision Support Tool Model

Documentation Fig 4.1.2.4.a).

By failing to account for the uncertainty inherent in the DST, NMFS overestimated the effectiveness of the selected methods for reducing risk to NARW. As a result, the proposed amendments to the ALWTRP are likely to be ineffective, and the NARW population will continue to decline.

#### E. Proposed Options for Regulatory Action and Assessment

NMFS identifies two regulatory options for reducing serious injury or mortality of whales from entanglement:

- 1) reducing the likelihood of entanglement; and
- 2) reducing the severity of injury if an entanglement occurs.

NMFS assumes the former option can be accomplished by reducing the number of lines throughout the region and by establishing seasonal restricted areas, and the latter option by requiring the use of rope that breaks more easily using weak links, weak inserts, or reduced breaking-strength (i.e., weak) rope.

Treating these two options as equivalents is contrary to current and emerging knowledge of risk mitigation. According to the hierarchy of controls ([www.cdc.gov/niosh/topics/hierarchy](http://www.cdc.gov/niosh/topics/hierarchy)), preventative actions are always more effective in mitigating risk than efforts to reduce the damage from hazardous events. The mitigation hierarchy, an extension of this concept, is used by the IUCN in habitat protection programs (BBOP 2010), and it is becoming the core framework for bycatch mitigation (e.g., Milner-Gulland et al. 2018). The unsupported assumption that minimizing injury is equivalent to actions that prevent entanglements is a foundation of this proposed rule modification (e.g., Draft EIS Section 3.1). Thus, in selecting the regulatory options, NMFS has overemphasized the value of weak lines for reducing risk. The ALWTRP would be more likely to accomplish its goal if it prioritized preventative efforts, rather than assuming an unrealistically optimistic value of injury reduction.

##### 1. Buoy Line Reduction

Reducing the density of buoy lines, particularly in areas and times where whales are predicted to occur at high densities, is increasingly acknowledged as the best option for reducing the amount of rope that whales may encounter (Johnson et al 2005, Brilliant et al. 2017, Myers et al 2019). This can be accomplished in a variety of ways while still allowing fisheries to continue, including establishing time-area closures, establishing line caps, limiting the maximum numbers of buoy lines per license, increasing the number of traps connected in series (i.e., trawling up), and using gear that does not require persistent buoy lines (e.g., ropeless gear). Each of these are effective at reducing the occurrence of buoy lines, and thus the probability of whales becoming entangled. Among these, the most effective, according to the mitigation hierarchy, is the use of time-area closures, as this can prevent entanglements in closed areas. Closed areas can be closed only to fisheries that use persistent buoy lines, thus allowing for the innovation of fishing gear (e.g., ropeless gear). When designed with consideration for the distribution of whales, efforts to reduce buoy line densities will most likely accomplish a reduction in the entanglement rate of whales.

##### 2. Weak Links, Weak Inserts, and Weak Rope

As discussed previously, the use of weak links, weak inserts, and weak rope are an untested premise

that cannot be relied upon to reduce the mortality or serious injuries of entangled large whales. Assessments of risk and risk reduction for various regulatory actions should only consider estimates of co-occurrence to approximate changes in entanglement risk.

Furthermore, the proposed use of weak links and weak points as an optimal alternative to fully weak rope (Draft EIS at p. 5-165) is speculative and not based on science. This distinction was explicitly discounted in Knowlton et al (2015), and this aspect of the ALWTRP for reducing entanglements is, therefore, unsupported.

The widespread implementation of options for weak rope also deserves careful consideration as there may be effects that counter the expected benefits (e.g., increased lost gear). A prudent approach would be to experimentally implement these rules in smaller areas for a period before widespread implementation, to evaluate potential unexpected consequences.

### 3. Assessment of Options for Regulatory Action

The preferred alternative (Alternative Two) includes regulatory actions that will reduce the number of buoy lines (by increasing trawl lengths, creating of two new restricted areas, and extending the duration of the Massachusetts Bay Restricted Area), and reduce the strength of buoy lines under various spatial management rules. This preferred alternative is predicted to reduce the risk of mortality or serious injury to NARW by at least 64.3% (Draft EIS at Table 3.4) relative to Alternative One (status quo). It is also predicted that this will reduce the number of buoy lines in the region by 18.8% to 19.2% (Draft EIS at Table 5.2).

Alternative Three would establish a cap on the number of buoy lines (50% of 2017 numbers), require increased trawl lengths, establish three new restricted areas, extend the duration of the Massachusetts Bay Restricted Area, and require a larger proportion of buoy lines to be changed to weak lines than Alternative Two. This more ambitious alternative is predicted to reduce the risk of mortality or serious injury to NARW by 69.6% to 72.6% (Draft EIS at Table 3.4) relative to Alternative One (status quo) and is expected to reduce the number of buoy lines by 50% to 50.6% (Draft EIS at Table 5.2).

Two reasons are given for the selection of the preferred suite of regulatory actions (Alternative Two) over Alternative Three (Draft EIS Section 3.3.4.2): because there was too much uncertainty among participants of the ALWTRT about the need to reduce risk by 80 percent, and because of the possible economic impacts to the fishery. These two reasons are inconsistent with the other evaluations throughout this process. The first reason can be discounted as the calculation in Draft EIS Section 2.1.5, which incorporates cryptic mortality, concludes that a reduction of 83% is necessary to achieve PBR. The second lacks an evaluation connected with the assessment of economic and social impacts (Draft EIS Section 6). In the latter, for example, the difference in first-year costs for implementing either Alternative is between 2% (Alternative 2, \$13 million; Draft EIS at p. 6-224) and 6% (Alternative 3, \$33 million; Draft EIS at p. 6-224) of the annual landed value of these fisheries (\$560 million based on 2017; Draft EIS at Table 4.7). Too little information is provided to show how this second reason was decided.

NMFS provided rationales for rejecting approximately one hundred alternative ideas from stakeholders for reducing entanglement risk. More than half of these were rejected because they were “unpopular with stakeholders”, and only approximately 12% were rejected because there was no, or insufficient risk reduction (Draft EIS at Table 3.6). Rejections of ideas because of popularity seems inconsistent with the purpose of this work, and the intended use of the DST. It does not suggest this process was based on evidence or merit.

## F. The NARW Conservation Framework

The first phase of the draft NARW Conservation Framework for federal fisheries in the Greater Atlantic Region is the Proposed Risk Reduction Rule, but this is followed by three additional phases of additional risk reduction programs over a 10-year period. This approach is intended to allow necessary measures to be implemented for NARW recovery while providing a phased and flexible approach for industry. The measures in these future phases will focus on fisheries other than lobster and crab but are otherwise undefined.

To determine the additional need for risk reduction, 50-year population projection models (Linden 2020) were developed to evaluate the predicted changes in the number of female NARW after the proposed ALWTRP amendment is implemented. These models showed that risk reductions from US fisheries less than 100% would not meet ESA mandates because survival and recovery would continue to be appreciably reduced due to risks from ongoing US state and federal as well as Canadian fisheries.

The inclusion of a Conservation Framework acknowledges that the current proposed effort is not expected to achieve its goal, and its inclusion demonstrates that the Proposed Risk Reduction Rule is not timely. The implementation of additional necessary risk reduction measures is a prolonged 10-year process that removes the immediate imperative for risk reduction and weakens the overall intention of this work by delaying difficult decisions and efforts for individuals in the future.

## G. Other Important Yet Overlooked Considerations

### 1. Sublethal Effects of Non-Serious Injuries

The harmful sublethal effects of entanglements are increasingly linked to the poor health and diminishing productivity of NARW (Christiansen et al. 2020, Moore et al. 2021). The ALWTRP and Draft EIS acknowledges this issue but responds by stating that evidence exists that reduced breaking strength rope will address this problem. For reasons previously discussed, this is not scientifically sound. Reducing the chance of killing a whale after it has become entangled is very unlikely to solve the problem of sublethal injuries.

The draft Batched Biological Opinion, released by NOAA in January 2021, also addresses these sublethal effects by citing some of the scientific investigations that have established the high entanglement rate for NARW (Knowlton et al 2012), the energetic costs of these entanglements (van der Hoop et al. 2016, van der Hoop et al. 2017a, van der Hoop et al. 2017b), and the range of health effects caused by entanglements (Cassoff et al. 2011, Hayes et al. 2018a), including limitations on reproductive rates (Robbins et al. 2015, Pettis et al. 2017, Hayes et al. 2018a). It concludes there is insufficient evidence that sublethal effects of entanglements alone are causing a decline in the health of large whales, and that the effect of sublethal injuries on calving rates cannot be estimated currently. This conclusion ignores substantial and growing (Christiansen et al. 2020, Moore et al. 2021) evidence of the effects of sublethal injuries on the recovery of NARW, and is inconsistent with previous methods by NMFS, such as the quantification of the value of rope strength in mitigating entanglements featured in this report.

The PBR only takes into consideration the numbers of individuals removed from a stock each year, but it does not address the problem that approximately 25% of the population of NARW are entangled every year (Knowlton et al. 2012). Correcting the poor health and low reproductive rate of NARW is as necessary for its recovery as preventing deaths. The survival and recovery of this species requires, therefore, a reduction in entanglement risk that exceeds what is simply needed to achieve PBR. This

further strengthens the use of the higher risk reduction target (83%) calculated in Draft EIS (Section 2.1.5) as the minimum need for the recovery of NARW.

## 2. Vessel Strikes

Although vessel strikes are outside of the scope of the ALWTRP, this issue deserves consideration as even relatively small fishing vessels can kill or seriously injure NARW if they strike one (Kelley et al. 2020). Vessel strikes are acknowledged in the Draft EIS as a risk to whales in the assessment of ropeless gear (Draft EIS at p. 5-154) because this could allow fishing vessels to use closed areas more frequently. Establishing speed restrictions in areas where NARW are persistent (e.g., in closed areas) would be a prudent and substantiated measure related to fisheries management and should be included as a component of the proposed ALWTRP amendment. Without this consideration, the fishing industry will be exposing NARW to a lethal risk that remains unaccounted for because of the potential for vessel strikes.

## 3. Dynamic Area Management

The absence of dynamic area management plans is a significant limitation of the ALWTRP and the Conservation Framework. By opting to not use dynamic area management, the plan will rely on historic data for predicting the locations of whales and may be unable to respond to new data or unexpected short-term changes in the distribution of NARW. Dynamic area management was among the proposed, but rejected, alternatives, and the reason for the rejection was that it was not feasible. Effective use of dynamic area management can be challenging and requires a variety of supporting mechanisms (e.g., communications, enforcement), but it allows for better adaptive management, which may be important for managing activities that affect NARW, as they have demonstrably changed their distribution over the last decade. Canada has implemented a large dynamic area management program since 2017 in response to the variable distribution of NARW (DFO 2019). This option deserves a more complete assessment and consideration to be included among the suite of regulations.

## 4. Monitoring

The ALWTRP provides few details on monitoring, though four factors of a proposed monitoring program are briefly outlined (Draft EIS Section 3.3.6.2): Compliance monitoring; North Atlantic right whale population monitoring; Fishery monitoring; and Fishery Reporting. The Conservation Framework commits, however, to a comprehensive evaluation of a variety of factors midway through its implementation to determine if the further proposed risk reduction measures are needed in the final five years.

Monitoring the compliance and outcomes of this plan is critical for its success, but there is a paucity of details or consideration for how this will be done. Successful detection of a reduction in the rate of entanglement depends on the duration of monitoring, the magnitude of risk being reduced, and the number of observations (Pace et al. 2014). As NARW do not have time to spare for a long monitoring program, detection of successful risk reduction requires a large decrease in risk, and a large increase in monitoring effort. The midterm assessment of the Conservation Framework is, therefore, very unlikely to detect the effect of the Proposed Risk Reduction Rule (60% risk reduction) over the proposed time-period (Pace et al. 2014).

### III. Conclusion

The Proposed Risk Reduction Rule to amend the ALWTRP will not reduce the deaths of NARW below PBR, nor will it allow the species to recover. This is most evident by an unfounded over-reliance on weak rope for risk reduction, the failure to include reductions of sublethal effects into its goals, the need for a long-term Conservation Framework, and the woeful population projection models (Linden 2020). Unfortunately, the Proposed Risk Reduction Rule is a heedless and unambitious plan at a time when the survival of NARW needs the exact opposite.

Sincerely,

A handwritten signature in black ink that reads "Sean Brilliant". The signature is written in a cursive style with a horizontal line underneath the name.

**Dr. Sean Brilliant**

## Appendix - References

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# Sean W. Brilliant

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## EDUCATION

Ph.D. (Experimental Marine Ecology) 2007

Centre for Research on Ecological Impacts of Coastal Cities, University of Sydney, Sydney, Australia

M.Sc. (Marine Biology) 1999

University of New Brunswick, Saint John, Canada

B.Sc. (Marine Biology, First Class Hon.) 1993

University of New Brunswick, Saint John, Canada

## APPOINTMENTS

Adjunct of the Faculty of Graduate Studies, 2011 – Present

*Dalhousie University, Department of Oceanography*

Senior Research Fellow 2018 – Present

*IOI-Canada, Halifax, NS*

Postdoctoral Fellow, 2008 – 2010

*Dalhousie University (WWF-Canada)*

Honorary Associate Lecturer, 2007 – 2008

*Centre for Research on Ecological Impacts of Coastal Cities, University of Sydney*

## PROFESSIONAL EXPERIENCE

Senior Conservation Biologist, National Marine Conservation Program, 2010 – Present

*Canadian Wildlife Federation*

Responsible for the development and delivery of conservation projects that support the goals of the CWF and its national marine conservation programme, and to represent CWF's position and interests in marine conservation to the public, the government and other partners.

Conservation Scientist, 2007 – 2008

*WWF-Canada*

Responsible for the development of research program to investigate the interaction between whales and commercial fisheries.

Executive Director, 1997 – 2003

*Atlantic Coastal Action Program (ACAP), Saint John NB Canada*

Responsible for the direction, development, support, and supervision of programs for this community-based, multi-stakeholder, environmental management initiative.

## HONOURS AND AWARDS

Commonwealth of Australia:

University of Sydney International Postgraduate Research Scholarship, 2003-2007

University of Sydney International Postgraduate Award, 2003-2007

Australian Association of Marine Science: R. Kenny Award, 2005

## SERVICE

Chair, Ropeless Consortium, 2019 – Present  
*Ropeless Consortium*

Co-Chair, National Disentanglement Advisory Committee 2019 – Present  
*Fisheries and Oceans Canada*

Steering Committee 2019 – Present  
*Bay of Fundy Ecosystem Partnership*

National Species at Risk Advisory Committee 2011 – Present  
*Environment and Climate Change Canada*

## SELECTED GRANTS HELD

Pew Environmental Trust Foundation (2020-2023)  
Advancement of Fisheries Practices for conservation of North Atlantic right whales **\$237 517 USD**

Government of Canada Nature Fund (2019-2023)  
Reducing mortality and serious injury to marine species-at-risk from entanglement in fishing gear **\$1 325 000**

Pew Environmental Trust Foundation (2019-2020)  
Fisheries Practices and management for conservation of North Atlantic right whales **\$276 442 USD**

Canadian Wildlife Federation Conservation Science (2020)  
Conservation of the North Atlantic right whale **\$50 000**

Government of Canada Habitat Stewardship Program (2017-2018)  
Tools To Train Canada's Marine Animal Emergency Responders **\$89 107**  
Establishing options to reduce Steller sea lion entanglements **\$40 405**

Government of Canada Habitat Stewardship Program (2016-2017)  
Training Canadians in Preventing and Responding to Marine Animal Emergencies **\$40 864**

Canadian Wildlife Federation Conservation Science (2016, 2017)  
Conservation of large marine wildlife **\$39 000, \$40 000**

Government of Canada Habitat Stewardship Program (2014-2016)  
Building capacity for Canada's response to marine animal emergencies **\$114 950**

Shell Canada Fueling Change (2014)  
Responding to Marine Mammal Emergencies **\$100 000**

Canadian Wildlife Federation Conservation Science (2014)  
Fisheries risk analysis for leatherback turtles – evaluation and implementation **\$24 000**

Canadian Wildlife Federation Conservation Science (2013-2014)  
Fisheries risk analysis for leatherback turtles **\$14 000**

Shell Canada Fueling Change (2011)  
The Great Canadian Turtle Race **\$100 000**

## TEACHING EXPERIENCE

### Selected lectures

- Ocean Governance: Issues of Immediate Concern, International Oceans Institute, NS Canada 2020
- Ocean Governance: Policy, Law and Management. International Oceans Institute, NS Canada 2013-2020
- Ocean Summer Field Course, Dalhousie University 2018
- Continuing Education program, Dalhousie University 2018.
- Intro to Field Oceanography (BIOL/MARI/OCEA 3003), Dalhousie University 2017.
- Conversations with Ocean Scientists (OCEA1000). Dalhousie University, NS Canada 2011-2017
- LandMarks: Art + Places + Perspectives. NS College of Art and Design, NS Canada 2017
- Biology and the Human Environment (ENVS 1203). St. Mary's University, NS Canada. 2011, 2014, 2016.

Instructor, University of New Brunswick, Saint John NB Canada; 2000, 2001, 2002

Stream Ecology and Restoration (BIOL 3175; 2002)

Introductory Ecology (BIOL 2585; 2000, 2001)

## PUBLICATIONS AND PRESENTATIONS

### Refereed Journals

Cole AK, Brillant, SW, Boudreau SA (2021) Effects of time-area closures on the distribution of snow crab fishing effort with respect to entanglement threat to North Atlantic right whales. *ICES J. Marine Science* (*accepted*)

Kelley, D. E., Vlastic, J. P., & Brillant, S. W. (2021). Assessing the lethality of ship strikes on whales using simple biophysical models. *Marine Mammal Science*, 37(1), 251–267.

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Goodman AJ, Brillant SW, Walker TR, Bailey M, Callaghan C (2019) A Ghostly Issue: Managing abandoned, lost and discarded lobster fishing gear in the Bay of Fundy in Eastern Canada. *Oceans and Coastal Management* 181: 104925

Brillant SW, Wimmer TSC, Rangeley RW, Taggart CT (2017) A timely opportunity to protect North Atlantic right whales in Canada. *Marine Policy*. 81: 160-166.

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Terhune J, Brillant S (1996) Harbour seal vigilance decreases over time since haul-out. *Animal Behaviour*. 51: 757-763.

### Non-refereed publications

Brillant S (2018) Is Canada Protecting its Marine Species At Risk? In: *The Future of Ocean Governance and Capacity Development*, eds. International Oceans Institute – Canada ISBN: 978-90-04-38027-1

Brillant S (2013) *An annotated bibliography of conservation issues of open-pen finfish aquaculture*. Canadian Wildlife Federation, Ottawa, ON.

## Selected Presentations

Brillant (2020) The Society for Marine Mammology Seminars: Editors' Select Series – [Assessing the lethality of ship strikes on whales using simple biophysical models](#). December 2020

Brillant (2020) Right Whales and Fisheries: Past, Present and Future Risk Mitigation Activities in Atlantic Canada. Atlantic Policy Congress (APC) of First Nations Chiefs Fisheries Conference. Moncton NB.

Brillant (2019) Saving the right whale needs the right kind of action. Biology Departmental Seminar, University of New Brunswick Saint John.

Brillant (2019) Finding the Right Solution to Stop Killing Whales. Mersey Tobeatic Research Institute. Caledonia NS.

Brillant S (2019) Whales and Fisheries. NS Federation of Angler and Hunters Annual Meeting. Truro NS.

Brillant S (2019) Whales, Fisheries, and Whales and Fisheries. Atlantic Policy Congress (APC) of First Nations Chiefs Fisheries Conference. Moncton NB.

Brillant, Vlastic, Kelley (2018) An interactive biophysical model to estimate physical stresses experienced by right whales as a result of vessel strikes. North Atlantic Right Whale Consortium 2018. New Bedford, MA.

Brillant S (2017) Marine Protected Areas. Sou'west Nova Scotia Lobster Forum (2017). Yarmouth, NS.

Brillant S (2017) Intertidal biodiversity workshop. Mersey Tobeatic Research Institute 6th Annual Science Conference: Biodiversity Workshop. Caledonia, NS Canada.

Brillant S (2016) Oceans of Data Panel presenter. Our Ocean Playground: Education Fair. Halifax, NS Canada

Brillant S (2016) Inspiring Brighter Futures for Conservation / Building Campaigns that Reduce Plastics in the Oceans / Engaging Youth and Young Professionals in Migratory Species Futures / Building New Constituencies for Conservation. Oceans and Islands Pavilion. World Conservation Congress. Honolulu HI, USA.

Brillant SW, Wimmer TSC, Rangeley RR, Taggart CT (2016) A scientific approach to reducing the entanglement of right whales, and other marine wildlife, in Canadian commercial fishing gear. International Marine Conservation Congress. St. John's NL Canada.

Brillant S (2015) How boaters are saving wildlife. Canadian Safe Boating Symposium. Halifax, NS Canada.

Brillant S, Nussey P (2014) Canada's Saltwater Cities: Artificial structures & biodiversity. Coastal Zone Canada Halifax, NS Canada.

Brillant S (2014) How do ropes and water (and whales) mix? Oceanography Departmental Seminar, Dalhousie University, Halifax NS Canada.

Brillant S (2013) Raising awareness of the role of MPAs in ocean conservation and sustainable development. 3<sup>rd</sup> International Marine Protected Areas Congress. Marseille, France.

Brillant SW Rangeley RR, Taggart, CT (2013) A quantitative risk analysis of Canadian commercial fishing gear to right whales and a proposed action to reduce this risk. North Atlantic Right Whale Consortium Annual Meeting. New Bedford MA USA.

Brillant S, Nussey P (2013) Canada's Saltwater Cities & Marine Biodiversity. Society for Conservation Biology International Congress for Conservation Biology. Baltimore, MD USA

Brillant S, Nussey P (2013) Detecting effects of artificial shorelines on intertidal biodiversity. Atlantic Canada Coastal and Estuarine Science Society Annual Meeting, Lawrencetown, NS Canada

Brillant S, Nussey P (2013) Detecting effects of artificial shorelines on intertidal biodiversity. Biology Departmental Seminar, University of PEI, Charlottetown, PE Canada.

Brillant S (2012) Stewardship in Canada's Oceans. SARA Advisory Committee meeting. Ottawa, ON Canada.

Brillant S (2012) Relative risk of fixed fishing gear to leatherback turtles: Maritimes & southern Gulf of St. Lawrence. Assessment of Leatherback Turtle Fisheries and Non-Fisheries Related Interactions in Atlantic Canadian Waters. Zonal Peer Review. St. Andrews, NB Canada.

Brillant SW (2011) Estimating the probability of entangling North Atlantic right whales in fishing gear in Canada. International Marine Conservation Congress. Victoria BC Canada.

#### **Selected Keynote Addresses, Facilitated Workshops**

Keynote. Nature Through Art. Toronto, ON (2019)

Keynote. Atlantic Society of Fish and Wildlife Biologists Annual Meeting. Oak Island NS (2019)

Invited Speaker. China-ASEAN Academy on Ocean Law and Governance. Hainan China. (2018)

Keynote - Bioblitz. Mersey Tobeatic Research Institute 6th Annual Science Conference: Biodiversity Workshop. Caledonia, NS Canada. (2017)

Keynote - Stakeholder Vision I. Clear Seas Symposium. Halifax, NS Canada. (2017)

Facilitator. Canadian Marine Animal Emergency Response Workshop: Incident Reporting and Information Management. Halifax NS Canada. (2016)

Keynote Speaker. Canadian Wildlife Health Cooperative Ambassadors Dinner. Toronto ON (2014)

Keynote Speaker. Canadian Rivers Institute Day Graduate Student Retreat. Charlottetown, PE Canada. (2014)

Facilitator. A Plan of Action for Shark Conservation - Atlantic Shark Forum. Halifax, NS Canada. (2014)

Facilitator. Canadian Marine Animal Emergency Response Workshop. Charlottetown, PE Canada. (2013)

#### **STUDENT SUPERVISION**

Farheen Kadwa (2020) Masters of Environmental Science. Assessing Relative Lethal Entanglement Threat to North Atlantic Right Whales (*Eubalaena glacialis*) in the Maritimes Lobster Fishery. University of Toronto, Toronto.

Nadia Dalili (2019) Masters of Marine Management (The use and value of opportunistic sightings for cetacean conservation and management in Canada). Dalhousie University, Halifax.

Alexandra Cole (2018) Masters of Marine Management (Modelling fishing effort displacement in the Southern Gulf of St Lawrence snow crab (*Chionoecetes opilio*) fishery: quantifying management measures for North Atlantic Right Whale (*Eubalaena glacialis*) entanglement prevention. Dalhousie University, Halifax.

Alexa Goodman (2018) Masters of Marine Management (A Ghostly Issue: Managing abandoned, lost, and discarded lobster fishing gear in the Bay of Fundy). Dalhousie University, Halifax.

Emiley MacKinnon (2017) Masters of Marine Management (A critical assessment and gap analysis of existing recovery strategies for the Atlantic Leatherback Sea Turtle (*Dermochelys coriacea*)). Dalhousie University, Halifax.

Hilary Dennis-Bohm (2013) B.Sc. Honours (Using a Modified Brownian Bridge Movement Model to Predict Spatial Probabilities of Leatherback Turtles in Atlantic Canada). Dalhousie University, Halifax.

Amy Ryan (2012) Masters of Marine Management (Evaluating the role and designation of critical habitat for conserving Canadian marine species at risk: a decision framework). Dalhousie University, Halifax.

Jessica McFee (2009) Masters of Marine Management (Options to Reduce North Atlantic right whale (*Eubalaena glacialis*) Entanglements by Characterizing Scotia-Fundy Fisheries). Dalhousie University, Halifax.

Robyn Foster (2000) Master of Science in Applied Economics and Finance (The Value Residents Place on the Cleanliness of Saint John Harbour/ Economic Benefits of Improving the Water Quality in the Saint John Harbour). University of New Brunswick, Saint John.

#### SELECTED PUBLIC MEDIA AND OUTREACH

##### Webinars

- CWF - Ocean Tracking Network Right whale webinars (2020)
- Canadian Conservation Corps (2018-2020)
- CWF Great Canadian Turtle Race (2013, 2015, 2016)
- Africa to America Row webinar series (2013)

##### Public Lectures

- Kent Building Supplies (2016) Helping Bats with White Nose syndrome. Halifax, NS.
- Halifax Boat Show (2015) Boating with Wildlife. Halifax, NS.
- Shubenacadie Wildlife Park (2015) Canada's coolest ocean creature. Shubenacadie, NS.
- Vancouver Aquarium (2015) Whales and turtles and more! Our roles marine conservation. Vancouver BC.
- University of PEI (2013) What do we mean by 'Marine Conservation' in Canada? Charlottetown, PE.

##### Public Media

###### 2020

- [Even slow-moving boats likely to kill endangered right whales in a collision, study finds](#). The Guardian Dec 2020.
- [Whale zone ahead: A cetacean speed trap tags ships going over the limit](#). Monga Bay Nov 2020
- [Punctuation's mark: Can we save the critically endangered North Atlantic right whale?](#) Canadian Geographic October 2020
- [The Future of North Atlantic right whales](#). ATV News. August 2020.
- [North Atlantic right whales nearing extinction, international nature body says](#). CTV news. July 2020
- [First right whales in Gulf of St. Lawrence trigger some fisheries closures](#). Toronto Star May 2020
- [2019 was the warmest year on record for the world's oceans. What does that mean for Canada?](#) Canadian Geographic Feb 2020
- [First right whales in Gulf of St. Lawrence trigger some fisheries closures](#). Canadian Press May 2020

###### 2019

- [Port Charlottetown, P.E.I. fishermen's group applaud changes to right whale restrictions](#). CBC 2019
- [New Brunswick fishers get \\$2 million to test gear to prevent whale entanglements](#). CTV May 2019
- [Slow response to right whale plight could have impact on Canadian fisheries, study says](#). Toronto Star

- [Ottawa Lifts Speed Limits For Gulf Of St. Lawrence After No Whales Spotted](#) Huff Post Aug 2019
- [Spate of right whale deaths has almost wiped out recent population gains.](#) National Post June 2019
- [New measures announced to protect North Atlantic right whales.](#) CTV News July 2019
- [International shipping industry under the microscope as whale death toll grows.](#) Can Press July 2019
- [Rescuers partially free 1 of 3 entangled right whales in Gulf of St. Lawrence.](#) CBC July 2019
- [6 recent deaths push rare whales closer to extinction.](#) Nat Geo July 2019
- [Endangered right whales have moved because of climate change - into dangerous waters.](#) PRI 2019
- [Two percent of the world's right whales have recently died - pushing the species closer to extinction.](#) CBS News Aug 2019
- [Saving the right whales.](#) Aug 2019
- [Why Atlantic Canada's lucrative seafood industry is concerned about Elizabeth Warren.](#) CBC Nov 2019

#### 2018

- [These whales are suffering a slow-motion extinction](#)
- [Atlantic right whales present in Grand Manan Basin](#)
- [New fisheries closures for right whales to take effect](#)
- [New Right Whale protection plans](#)

#### 2017

- [Federal action to protect right whales encouraging, say environmental groups.](#) CBC News. Aug 2017
- [Fisheries Canada solicits public's advice on what to do.](#) Global News. Aug 9 2017
- [Why are whales dying in the Gulf of St. Lawrence?](#) Globe and Mail. July 28, 2017
- [Experts begin autopsy on another North Atlantic right whale.](#) Globe and Mail. July 22, 2017
- [Temporary closure of a fishery can help whales and fishermen, biologist says.](#) July 17, 2017
- [Speed limit to protect whales.](#) CTV News Channel. Aug 11, 2017
- [What is the federal government doing to protect right whales?](#) Global News. Aug 3, 2017
- [Government imposes new safeguards for right whales.](#) Global TV News. July 13, 2017
- [Fisheries Department suspends some whale rescues following rescuer death/ Gov't taking steps to protect endangered animals.](#) CTV News. July 13, 2017
- [Seventh right whale found dead.](#) July 7, 2017
- [US Trade rules for seafood \(@ 0:04\).](#) CBC-TV Nova Scotia News.
- [Right whales in the Gulf of St. Lawrence.](#) CBC Shift-NB. July 17, 2017
- [What ought to be done to protect the endangered Right Whale?](#) CBC Maritime Connection. July 2017

#### 2016

- [Dalhousie researchers may have solved mystery of right whale migration.](#) TheChronicleHerald.ca
- [App allows the public to follow whales off Atlantic coast.](#) CBC.ca
- [High-tech drones prowling Atlantic waters may have found elusive whale habitat.](#) CTV-Atlantic.
- [Saving whales from old ropes.](#) CBC Maritime Noon.
- [Researchers Use Mobile App To Find Endangered Right Whales.](#) Huffington Post Canada.
- [Where are the whales?](#) Radio Canada International.
- [Missing a whale? There's an app for that.](#) Toronto Star.
- [Researchers turn to public via rejigged app to help track down missing whales.](#) CTV News Atlantic.
- [Une étude "sans précédent" au sujet des baleines noires de l'Atlantique.](#) ICI.Radio-Canada.ca.
- [Endangered right whale sought in Atlantic marine mammal study.](#) CBC.ca.
- [Researchers turn to public via rejigged app to help track down missing whales.](#) CityNews.
- [Ottawa strengthens protections for whale populations.](#) CBC The National.
- [Sean Brilliant on right whale population.](#) CTV Atlantic Evening News with Steve Murphy.
- [Whale are you? App helps track down elusive right whales.](#) CTV Atlantic.



APPENDIX II

Oceana Comment Letter on Atlantic Large Whale Take Reduction Plan Scoping (Sept. 16, 2019)

*(See attached.)*

September 16, 2019

Via email to: [nmfs.gar.ALWTRT2019@noaa.gov](mailto:nmfs.gar.ALWTRT2019@noaa.gov)

Michael Pentony  
Regional Administrator  
National Marine Fisheries Service  
55 Great Republic Drive  
Gloucester, MA 01930–2276

### **Re: Comments on Atlantic Large Whale Take Reduction Plan Scoping**

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.1 million members and supporters in the United States, including hundreds of thousands on the U.S. Atlantic seaboard. Oceana has been engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species for more than 15 years with a particular interest in effective catch monitoring and bycatch minimization. Oceana appreciates the opportunity to provide comments on scoping for an Environmental Impact Statement (EIS) to consider changes to the Atlantic Large Whale Take Reduction Plan (ALWTRP). This action offers the National Marine Fisheries Service an opportunity to fully evaluate the efficacy and outcomes of current large whale take reduction measures and to consider a suite of alternatives that will make necessary changes to this set of regulations for U.S. Atlantic fisheries.

It is essential that any alternatives adopted in the ALWTRP achieve the multiple requirements of the Marine Mammal Protection Act (MMPA) to reduce take, mortality and significant injury to below scientifically acceptable levels. In addition to this requirement, the changes must also meet the obligations of the Endangered Species Act to recover listed species, including the North Atlantic right whale (NARW), which has been listed as endangered since 1970. Finally, the ALWTRP must also comply with the National Environmental Policy Act (NEPA).

To achieve these goals and requirements, the Fisheries Service must include proven and effective changes to the management of the affected fisheries that will help NARWs along the path to recovery. Oceana recommends that, in addition to the alternatives included in the April 2019 ALWTRT majority alternative, the agency include the following in the reasonable range of alternatives developed and considered in the ALWTRP EIS:

- Time-area management including static and dynamic area closures;
- Gear reduction modification and line reduction: and
- Fishery monitoring and reporting.

## LEGAL BACKGROUND

As it develops the current changes to the ALWTRP, the agency must comply with the requirements of NEPA, including the requirement to conduct a thorough scoping process that solicits broad input in order to identify a reasonable range of alternatives for addressing the purpose of the agency action. Once identified, those alternatives must be rigorously evaluated.

### I. THE ROLE OF SCOPING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

Congress enacted NEPA to ensure that federal agencies incorporated environmental concerns into their decision-making processes.<sup>1</sup> In furtherance of this goal, NEPA compels federal agencies to prospectively evaluate the environmental impacts of proposed actions that they carry out, fund, or authorize. Federal agencies must prepare an EIS whenever they propose “major Federal actions significantly affecting the quality of the human environment.”<sup>2</sup> Public involvement is essential to implementing NEPA; it “helps the agency understand the concerns of the public regarding the proposed action and its environmental impacts, identify controversies, and obtain the necessary information for conducting the environmental analysis.”<sup>3</sup>

Scoping is a critical early step in the EIS process as it provides an opportunity for parties with a variety of perspectives to help inform the process. It “sets the boundaries ... of the analysis,” “helps to identify information sources,” and “helps to focus alternatives and identif[y] issues to be addressed within the EIS.”<sup>4</sup> A comprehensive scoping process is essential for identifying the “reasonable range” of alternatives that must be evaluated in the EIS process to address the purpose and need of proposed agency action.<sup>5</sup> Those reasonable alternatives must be rigorously explored and objectively evaluated. Each alternative must be “considered in detail...so that reviewers may evaluate their comparative merits.”<sup>6</sup> “What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case.”<sup>7</sup> As one court stated, the agency “must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate.”<sup>8</sup>

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<sup>1</sup> 42 U.S.C. § 4331(a).

<sup>2</sup> *Id.* at § 4332(2)(C).

<sup>3</sup> NOAA Administrative Order Series 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (May 20, 1999), [https://www.nepa.noaa.gov/NAO216\\_6.pdf](https://www.nepa.noaa.gov/NAO216_6.pdf).

<sup>4</sup> 40 C.F.R. § 1501.7; National Marine Fisheries Service, *NEPA Informational Guide*, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/docs/nepa\\_overview.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/docs/nepa_overview.pdf); *Citizens' Comm. to Save Our Canyons v. U.S. Forest Serv.*, 297 F.3d 1012, 1022 (10th Cir. 2002).

<sup>5</sup> 40 C.F.R. § 1502.14.

<sup>6</sup> *Id.* at § 1502.14(b).

<sup>7</sup> Council on Environmental Quality, *40 Most Asked Questions Concerning CEQ's Nation Environmental Policy Act Regulations* (Mar. 23, 1981), <https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>.

<sup>8</sup> *Ilio 'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006).

## II. THE REQUIREMENTS OF THE MARINE MAMMAL PROTECTION ACT

Since 1972 the Marine Mammal Protection Act (MMPA) has afforded special protection to marine mammal species from a wide range of threats around the world. At the heart of the MMPA's science-driven approach to conservation, management and recovery of marine mammals are the goals of maintaining the optimum sustainable population and ecosystem function of marine mammal stocks, restoring depleted stocks to their optimum sustainable population levels and reducing mortality and serious injury (bycatch) of marine mammals incidental to commercial fishing operations to insignificant levels. Ultimately, marine mammal mortality should achieve a zero mortality and serious injury rate to a level approaching zero, the Zero Mortality Rate Goal (ZMRG).

To achieve these overarching goals, the MMPA prohibits taking of marine mammals with an exception for commercial fisheries.<sup>9</sup> In these instances, the MMPA requires fisheries to achieve an interim goal of Potential Biological Removal (PBR).<sup>10</sup> The PBR is calculated based on the dynamics of a species or mammal stock to be “(t)he maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.”<sup>11</sup> This requirement is the guiding metric of success for recovering marine mammal species and for incidental fishing mortality reductions.

In the most recent Stock Assessment Report for NARWs, PBR was calculated to be 0.9 mortalities or incidents of serious injury per year.<sup>12</sup> In other words, no more than 0.9 NARWs may be killed or seriously injured by human actions each year for the species to achieve optimum sustainable population.

### A. Take Reduction Teams/Take Reduction Plans<sup>13</sup>

To achieve the goals of the MMPA, the Fisheries Service convenes Take Reduction Teams (TRTs) - interdisciplinary groups tasked with the development of Take Reduction Plans (TRPs). TRT members are selected for their expertise regarding the conservation and biology of the marine mammal species or expertise regarding the fishing practices that result in the take of such species. TRTs are assembled to respond to specific needs and reconvene when the conservation needs of an MMPA-protected species necessitate changes to regulations.

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<sup>9</sup> 16 U.S.C. §§ 1371(a), 1371(a)(5)(E)

<sup>10</sup> 16 U.S.C. § 1387(f).

<sup>11</sup> 16 U.S.C § 1362(20).

<sup>12</sup> “2018 Marine Mammal Stock Assessment Reports”, 84 Fed. Reg. 28489 (June 19, 2019).

<sup>13</sup> *Marine Mammal Take Reduction Plans and Teams*, NOAA Fisheries (last updated August 8, 2019), <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams>.

The overarching goal of each TRP is “to reduce, within 5 years of the plan’s implementation, the mortality and serious injury (bycatch) of marine mammals...to insignificant levels approaching a zero mortality and serious injury rate, taking into account the economics of the fishery, the availability of existing technology, and existing state or regional fishery management plans.”<sup>14</sup> This so-called Zero Mortality Rate Goal (ZMRG) is the ultimate goal of marine mammal conservation in each TRP in the United States with achievement of PBR acting as an intermediate step towards recovery.<sup>15</sup>

To accomplish this important task, each TRP contains a review of recent stock assessments and estimates of total number of marine mammals being taken annually by species and by fishery. The TRP then explores recommended regulatory and voluntary measures and the expected percentage of the required bycatch reduction that will be achieved by each measure. The TRP must also include a discussion of alternate management measures considered and reviewed by the TRT and a rationale for their rejection. Finally, a TRP must include monitoring plans to determine the success of each measure and a timeline for achieving specific objectives of the TRP.<sup>16</sup>

Despite any practical overlap in assessments stemming from different statutes, it is important to note that the MMPA and NEPA both have their own requirements that must be individually met.

The Atlantic Large Whale Take Reduction Team (ALWTRT) has been in effect since 1996.<sup>17</sup> The Atlantic Large Whale Take Reduction Plan (ALWTRP) was first implemented in 1997.<sup>18</sup> The ALWTRT has advised the Fisheries Service on more than a dozen rules and regulations since then to modify fisheries managed under the ALWTRP.<sup>19</sup>

### III. THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT

Parallel to the requirements of the MMPA, Section 7 of the Endangered Species Act requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency, including the authorization of fisheries, is not likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat.<sup>20</sup>

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<sup>14</sup> 16 U.S.C. § 1387(f)(2).

<sup>15</sup> 16 U.S.C. § 1387(b).

<sup>16</sup> NOAA Fisheries Marine Mammal Take Reduction Plans and Teams Website:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams#take-reduction-plan-content> (last visited September 6, 2019)

<sup>17</sup> *Atlantic Large Whale Take Reduction Plan: The Take Reduction Team*, NOAA Fisheries,

<https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/index.html> (last visited August 16, 2019).

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> 16 U.S.C. §1536(a)(2).

To ensure that federal activities do not jeopardize Endangered Species Act--listed species, the Fisheries Service conducts a consultation under Section 7 of the ESA that assesses the effect of a proposed action on the species.<sup>21</sup> This consultation ends in the publication of a Biological Opinion that includes a determination of whether the activity will jeopardize the continued existence of the species and identifies measures to mitigate the effects of the activity on the species.<sup>22</sup> If the action is expected to jeopardize the species, the Biological Opinion will include non-discretionary Reasonable and Prudent Alternatives and a list of Terms and Conditions for the fishery.<sup>23</sup> If the fishery is determined to not jeopardize the species, the Biological Opinion will include more flexible Reasonable and Prudent Measures and a list of Terms and Conditions for the fishery.<sup>24</sup>

Importantly, the Biological Opinion also includes an Incidental Take Statement (ITS) that authorizes and specifies the level of acceptable take for the fishery that will not trigger future consultation.<sup>25</sup> Like the TRP, the Biological Opinion and ITS include a requirement to effectively monitor takes against the level specified in the ITS.<sup>26</sup> In 2017, the Fisheries Service initiated Section 7 consultations for the red crab and lobster fisheries as well as a “batched” consultation for the multispecies, monkfish, dogfish, bluefish, skates, mackerel /squid/ butterfish, and summer flounder /scup/ black seabass fisheries.<sup>27</sup>

## FACTUAL BACKGROUND

### I. CHRONOLOGY OF NOTABLE AGENCY ACTIONS TO REDUCE TAKES OF LARGE WHALES IN ATLANTIC FISHERIES

Since its inception in 1996, the ALWTRT has developed a series of regulations to minimize takes of right, humpback and fin whales in U.S. Atlantic fisheries from Florida to the Canadian border.<sup>28</sup> Conservation of minke whale is also included in this plan. These regulations were then implemented by the Fisheries Service to create, remove and modify gear restrictions and time-area management strategies to meet the goals and requirements of the MMPA and ESA.

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<sup>21</sup> *Id.*

<sup>22</sup> *Id.* at (c).

<sup>23</sup> *Id.* at (b)(3)(A).

<sup>24</sup> *Id.* at (b)(4).

<sup>25</sup> 50 CFR § 402.14(i).

<sup>26</sup> *Id.*

<sup>27</sup> Michael J. Asaro, *Update on NOAA Fisheries Right Whale Recovery Actions*, NOAA Fisheries (November 30, 2017), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro\\_trtwebinar\\_nov2017.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro_trtwebinar_nov2017.pdf).

<sup>28</sup> “ALWTRP Interim Final Rule”, 62 Fed. Reg. 39157 (July 22, 1997)

These actions include two 2002 actions to create dynamic area management (DAM) and seasonal area management (SAM) programs,<sup>29</sup> a June 2007 rule to expand the Southeast U.S. Restricted Area and modify regulations for the gillnet fishery,<sup>30</sup> an October 2007 gear modification that eliminated the DAM program, replaced it with gear modifications and expanded SAM areas,<sup>31</sup> and most recently a “trawling up” rule to increase the minimum number of lobster traps that can be fished together on a string or “trawl” of traps in order to reduce the amount of vertical lines in the water.<sup>32</sup>

## II. RESULTS OF PAST EFFORTS AND RECENT CHANGES

The ALWTRP significantly changed the management, administration and operations of a range of fisheries in the U.S. Atlantic. These measures had moderate success from the implementation of the ALWTRP in the 1990s through 2010.<sup>33</sup> During this time, large whales, particularly NARWs, experienced moderate recovery from a population size in the mid-200s to more than 480 in 2010.<sup>34</sup>

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>35</sup> Possible causes of this increase in mortality include ecosystem shift, fishery behavior changes and whale behavior changes.<sup>36</sup> In 2017, responding to an elevated number of observed right whale deaths, the Fisheries Service declared an Unusual Mortality Event (UME) for NARWs which is currently ongoing.<sup>37</sup> A UME is defined as "a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response."<sup>38</sup>

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<sup>29</sup> “DAM Final Rule”, 67 Fed. Reg. 1133 (January 9, 2002); “SAM Interim Final Rule” 67 Fed. Reg. 1142 (January 9, 2002).

<sup>30</sup> “SE Modifications Final Rule”, 74 FR 34632 (June 25, 2007)

<sup>31</sup> “Broad-based gear modification final rule”, 72 Fed. Reg. 57104 (October 5, 2007).

<sup>32</sup> “Final Rule”, 79 Fed. Reg. 36586 (June 27, 2014).

<sup>33</sup> *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, NOAA Fisheries (last updated May 10, 2019), <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures>.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (September 18, 2018), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw\\_brief\\_for\\_alwtrt\\_09\\_18\\_18.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw_brief_for_alwtrt_09_18_18.pdf).

<sup>37</sup> *2017-2019 North Atlantic Right Whale Unusual Mortality Event*, NOAA Fisheries, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-north-atlantic-right-whale-unusual-mortality-event> (last updated August 5, 2019).

<sup>38</sup> 16 U.S. Code § 1421h(6).

### III. CURRENT RULEMAKING

#### A. 2017-2018 ALWTRT Meetings

In response to the necessity of reducing serious injury and mortality of NARWs in fixed-gear fisheries, the ALWTRT met throughout 2017 and 2018 to explore current issues and challenges facing NARWs in the U.S. Atlantic. These ALWTRT meetings discussed the problems as well as alternatives for mitigating these threats. The meetings culminated in a meeting in October 2018 where the ALWTRT accepted and discussed nine alternative proposals from ALWTRT members to reduce takes of NARWs. The alternatives included new time-area management options, gear reductions, and gear restrictions and modifications. This meeting served as a precursor to a 2019 meeting where the ALWTRT would attempt to reach consensus on which alternative(s) to recommend.<sup>39</sup>

#### B. 2019 ALWTRT Meeting

Following a delay caused by a federal government shutdown, the ALWTRT met in April 2019 to seek consensus on modifications to the ALWTRP to reduce takes to below PBR. Prior to the meeting, the Fisheries Service provided the ALWTRT with a clear goal for the meeting to meet the needs of the species: reduce mortalities and serious injuries (M/SI) of NARWs in U.S. fisheries to below the NARW Potential Biological Removal (PBR) level of 0.9 via a 60-80% reduction of M/SI from current levels.<sup>40</sup> The Fisheries Service suggested that the ALWTRT use a “risk evaluation tool” to measure the effects of different management strategies and tools using a common metric of success rather than evaluate options independently.<sup>41</sup>

Following days of intense discussion, the ALWTRT ultimately selected, by majority but not consensus opinion, a strategy that will set state-specific risk reduction targets based on vertical line reduction and weak rope that is designed to come apart when entangled with a large whale.<sup>42</sup> This suite of measures was supported by all voting members of the ALWTRT except one who opposed because she didn’t think that the strategy went far enough to meet the goals and requirements of the Marine Mammal Protection Act or the Endangered Species Act.

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<sup>39</sup> *Atlantic Large Whale Take Reduction Plan: The Take Reduction Team – Meetings*, NOAA Fisheries, <https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/index.html> (last visited August 16, 2019).

<sup>40</sup> Letter from Colleen Coogan, *Take Reduction Target Letter*, NOAA Fisheries (April 5, 2019), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/06 take reduction target letter april52019.html](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/06%20take%20reduction%20target%20letter%20april52019.html).

<sup>41</sup> Michael J. Asaro, *Summary of April 2019 Atlantic Large Whale Take Reduction Team Meeting*, NOAA Fisheries (June 13, 2019), <https://s3.amazonaws.com/nefmc.org/NEFMC-TRT-Presentation-June-2019-Asaro.pdf>.

<sup>42</sup> *Cross Caucus Outcomes as Presented and Voted Upon 4/26/19*, NOAA Fisheries, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross caucus outcomes as presented and voted upon 4 26 19.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross%20caucus%20outcomes%20as%20presented%20and%20voted%20upon%204%2026%2019.pdf) (last visited August 15, 2019).



## DISCUSSION

On August 2, 2019, the National Marine Fisheries Service published a Notice of Intent (NOI) to develop an Environmental Impact Statement (EIS) to modify the ALWTRP to reduce serious injury and mortality of large whales in commercial trap/pot fisheries along the U.S. East Coast.<sup>43</sup> This NOI expressed the purpose and need of this action to “fulfill the mandates of the MMPA to reduce impacts of fisheries on large whale species below their PBR level.”<sup>44</sup>

### I. CURRENT RULEMAKING MUST BE DEVELOPED IN ACCORDANCE WITH NEPA, THE MMPA AND THE ESA.

The Fisheries Service must develop any changes to the ALWTRP in careful accordance with the full range of statutes that regulate the interaction between fisheries and endangered or depleted marine mammals.

#### A. National Environmental Policy Act

Although the TRT process is useful for developing and vetting ideas and strategies among stakeholders, it does not replace the value of a full NEPA EIS to develop and analyze a reasonable range of alternatives. The NOI for the current amendments to the ALWTRP presents a broad directive for the rulemaking in its Purpose and Need Statement:

NMFS’ purpose for the proposed action is to fulfill the mandates of the MMPA to reduce impacts of fisheries on large whale species below their PBR level.<sup>45</sup>

This statement should guide the EIS development for this action. Beginning with scoping, this statement should provide feedback throughout the process to ensure that a complete EIS includes a reasonable range of alternatives that address the purpose and need and achieve the requirements of the MMPA and Endangered Species Act. As discussed above, the Fisheries Service must not pre-judge alternatives presented in scoping and must instead fully consider any reasonable alternatives that address the Purpose and Need of the action to reduce takes to below PBR.

Following publication of the Draft EIS, the Fisheries Service should then select an alternative or suite of alternatives that achieve this purpose. Failing to select an alternative that analysis demonstrates would achieve the purpose and need of the action is unacceptable, contrary to the requirements of NEPA and will leave the rule ineffective and vulnerable to challenge.

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<sup>43</sup> Notice of Intent, 84 Fed. Reg. 37822 (August 2, 2019).

<sup>44</sup> *Id.*

<sup>45</sup> “Notice of Intent”, 84 Fed. Reg. 37823 (August 2, 2019).

## **B. Marine Mammal Protection Act**

The Fisheries Service should ensure that any alternatives comply with the requirements of the MMPA to reduce takes of NARWs below PBR immediately with corresponding measures to monitor takes and trigger further management action. Compliance with PBR is a crucial step towards the legally-required ZMRG for the species.

The Fisheries Service should invoke emergency regulation authority granted by the MMPA to implement emergency measures to expedite implementation of recommended ALWTRT recommendations.<sup>46</sup> The ongoing high rates of NARW mortality, unpredictable movements, overdue state of achieving PBR and ZMRG, as well as the critically low population of the species creates an emergency, which is not fully addressed by currently implemented measures.

## **C. Endangered Species Act**

Any action to amend the ALWTRP must also be consistent with the parallel requirements of the Endangered Species Act and Section 7 consultations for the range of currently affected fisheries. While the MMPA requirements to reduce takes are focused on reducing serious injury and mortality, the Endangered Species Act has a far more stringent requirement to reduce takes generally, including mere interactions. Even if the consultations are incomplete, the Fisheries Service should use the ongoing consultation to advise the ALWTRP rulemaking to avoid unnecessary future rulemaking. Furthermore, any analysis of alternatives in the EIS must evaluate takes in the context of both the MMPA and Endangered Species Act requirements.

## **II. THE CURRENT RULEMAKING AND EIS SHOULD EXPAND THE SCOPE OF THE ACTION TO CONSIDER THE FULL RANGE OF FIXED GEAR FISHERIES THAT INTERACT WITH NORTH ATLANTIC RIGHT WHALES**

The current focus of amendments to the ALWTRP is the lobster, crab trap and pot fisheries. While there is concern about these fisheries and their effects on NARWs, they are not the only risks to the species. Considering the status of NARWs, the Fisheries Service should be tackling every threat to the species that falls under the ALWTRP to minimize risk and ensure that affected fisheries achieve PBR and ZMRG.

Gillnets are a widespread gear type for many fisheries from Maine to Florida, so delaying action on gillnet fisheries for a future management action is not acceptable. The Fisheries Service should develop management alternatives for all ALWTRP fisheries in this action. Oceana submits its comments on alternatives below in the context of the full range of fisheries.

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<sup>46</sup> 16 U.S.C. § 1387(g).

### **III. COMMENTS ON ATLANTIC LARGE WHALE TAKE REDUCTION TEAM MAJORITY ALTERNATIVE**

The April 2019 ALWTRT majority alternative is a significant step forward for the lobster fishery in the Northeast (NE) region. This “Cross Caucus Agreement” (attached) includes state specific measures and modifications that reduce vertical lines, adopt weak lines and other strategies to meet the 60-80% reduction goal spelled out by the agency ahead of the meeting.<sup>47</sup>

If completely and properly implemented, the near-consensus alternative is expected to reduce NARW entanglement risk enough to potentially attain PBR. However, each element of the ALWTRT alternative has weaknesses and uncertainties that need to be explored and developed in the EIS to ensure that the alternative will achieve all goals and requirements of the action.

#### **A. State-level Implementation Questions**

The ALWTRT alternative relies on measures that were crafted and fine-tuned for the needs and responsibilities of each state and the offshore Area 3 fishery. These alternatives are largely undefined for each state and cannot be properly evaluated until the respective states complete their rulemaking processes. The EIS must explore the state-federal parallel processes to clarify how these will be implemented. It is important to know what the Fisheries Service will do if a state does not fulfill its obligations according to the ALWTRT alternative and whether regulation of federal waters will be sufficient to attain PBR. This is especially true for the State of Maine that has recently withdrawn its support from the TRT process, the need for action and the suite of alternatives developed by the TRT in favor of unspecified strategies and standards.<sup>48</sup> The TRP will only be successful if all affected fisheries cooperate and coordinate and it is the responsibility of the Fisheries Service to ensure this plan is successful.

#### **B. Weak Rope**

Each element of the ALWTRT alternative relies on the expanded use of weak rope, line inserts, sleeves or other “contrivances” that theoretically allow NARWs to break free from entanglements. This strategy is flawed in two ways that must be fully explored and analyzed in the EIS.

First, the use of weak rope is expected to reduce entanglements of adult NARWs that can produce enough power to separate the weak rope. Weak rope has not been proven to be effective for calves and juveniles, however and cannot be part of a comprehensive risk management plan.

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<sup>47</sup> ALWTRT “Cross Caucus Outcomes” as Presented and Voted Upon 4/26/19. ALWTRT Website, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross\\_caucus\\_outcomes\\_as\\_presented\\_and\\_voted\\_upon\\_4\\_26\\_19.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross_caucus_outcomes_as_presented_and_voted_upon_4_26_19.pdf) (Last visited August 30, 2019)

<sup>48</sup> See Maine Department of Marine Resources bulletin from Governor Janet T. Mills, dated 07/11/2019. <https://content.govdelivery.com/accounts/MEDMR/bulletins/250ce68> (Last visited September 6, 2019)

Protecting all life stages is critical for the species' recovery, as the PBR includes calves and juveniles. Therefore, any management strategy must provide protection for each life stage to effectively meet PBR and cannot be focused on benefits to just one life stage.

Second, while reducing mortality and significant injury by using weak rope will minimize entanglement under the MMPA requirements, the Fisheries Service has multiple obligations for the conservation of NARWs and cannot ignore the Endangered Species Act requirement to avoid entanglement outright to protect NARWs most effectively, especially calves/juveniles. Weak rope will do nothing to reduce the takes of listed NARWs under the Endangered Species Act as they will nonetheless have interactions with gear that qualify as "takes." If, as Oceana argues, weak rope is not a sufficient measure to reduce Endangered Species Act takes, the ALWTRT alternative must recoup the risk reduction benefits attributed to weak rope by implementing other management measures that avoid interactions.

### **C. Monitoring**

The ALWTRT alternative includes a reference to future action to develop monitoring for the affected fisheries but offers no specifics about what the goals of the monitoring program would be. Nor does the ALWTRT alternative discuss the logistics of what is likely to be a very complicated monitoring program for a complex, diverse suite of fisheries. As we have seen with the development and refinement of the Northeast Region Standardized Bycatch Reporting Methodology, these tasks can be significantly challenging when rare events are the focus of the monitoring program.

The MMPA and Endangered Species Act require mechanisms to monitor takes against their respective threshold values (PBR, ITS, etc.), and the agency should develop effective, accurate, precise and timely monitoring options to be considered in the ALWTRT alternative. Without monitoring, this action will be deficient and cannot be approved. Oceana has included a more detailed discussion of monitoring below that should be considered in the context of any alternatives.

## **IV. THE CURRENT RULEMAKING SHOULD EXPLORE A FULL RANGE OF ALTERNATIVES TO MODIFY THE ATLANTIC LARGE WHALE TAKE REDUCTION PLAN TO ACHIEVE THE PURPOSE AND NEED OF THE RULE OF REDUCING TAKES TO BELOW PBR AND TOWARDS ZMRG**

In addition to the alternative developed by the ALWTRT, the agency must develop and analyze a reasonable range of alternatives to achieve the goals of the action. Each of these alternatives discussed below have proven worldwide to be effective protected species interaction and bycatch minimization strategies. They merit full development in the EIS.

## **A. Time-Area Management**

The most effective strategy to minimize fishery bycatch and entanglements is to avoid interactions and minimize the effects of interactions that occur. The agency has used this strategy and explicit authority granted by the MMPA<sup>49</sup> to create management areas in U.S. waters, including existing seasonal management areas in the ALWTRP.

To accomplish time-area management, regulations must shift fishing effort away from places and times where whales are present or expected. The EIS should explore two varieties of additional time-area management alternatives, which are explicitly authorized by the MMPA and have been implemented by the Fisheries Service in the past: static management areas and dynamic management areas.

### **1. Static Management Areas**

The EIS should include alternatives to create new and expand existing static seasonal management areas in times and areas where NARWs have been documented in recent years. A series of time-area management proposals based on different criteria were proposed to the ALWTRT in October 2018, and Oceana encourages the agency to include each of these areas in the EIS.<sup>50</sup>

Furthermore, the EIS should include alternatives to establish an annual review process to evaluate potential management areas to establish new static seasonal SAMs in regions and seasons where NARWs congregate. This process should include a schedule for the review, criteria to evaluate and method to monitor efficacy of the areas.

### **2. Dynamic Management Areas**

In many parts of the Northeast region, NARWs are not following past migration, feeding and congregation patterns. Because of this uncertainty and the uncertainty in a rapidly changing Northwest Atlantic ecosystem, the agency needs to complement seasonal management areas with alternatives that establish criteria to create temporary reactive management areas, when sightings of NARWs are found during surveys or by other means. The alternative should also include

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<sup>49</sup> 16 U.S.C. § 1387(f)(9).

<sup>50</sup> HSUS et al, *Proposal for October 2018 Atlantic Large Whale Take Reduction Team Meeting September 24, 2018*, NOAA Fisheries (October 2018), [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/October%202018/4\\_hsus\\_defenders\\_cbd\\_alwtrp\\_proposal\\_final\\_9\\_24\\_18.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/October%202018/4_hsus_defenders_cbd_alwtrp_proposal_final_9_24_18.pdf); S.D. Kraus et al., *Proposal to Reduce Serious Injury and Mortality from Entanglement of Right Whales, Fin Whales, and Humpback Whales*, NOAA Fisheries, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/October%202018/5\\_neaq\\_trt\\_proposal\\_final\\_2\\_.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/October%202018/5_neaq_trt_proposal_final_2_.pdf) (last visited August 15, 2019).

monitoring requirements and criteria to dissolve these areas when whale aggregations move to other areas or disperse altogether.

Although more complicated to administer, this strategy clearly benefits fisheries. Focused dynamic management areas can be much smaller and of shorter duration than seasonal management areas. Further, dynamic areas are based on current presence and avoid the risk of managing fishing where whales are not present. In recent research dynamic management strategies have been found to “both support economically viable fisheries and meet mandated conservation objectives in the face of changing ocean conditions.”<sup>51</sup>

The Fisheries Service used a similar DAM strategy to create and dissolve management areas in the past under the ALWTRP. The DAM Program was discontinued in 2009 because of technical difficulties, monitoring requirements and concerns about enforcement capabilities. Considering that current science and technological capabilities are both far more advanced than in 2009, however, a dynamic management program deserves to be evaluated and analyzed in the EIS.

## **B. Gear Reduction, Modification and Line Reduction**

Oceana agrees with the analysis and work that supported ALWTRT meetings suggesting that there is far too much fixed gear in the waters of the U.S. Atlantic. The amount of gear presents a clear, increased risk for whales. Such a high amount of gear may also reduce the efficiency of fisheries that are using too much effort for their level of catch.

To address this level of overcapacity in the region, Oceana encourages the Fisheries Service to include alternatives in the EIS that will reduce vertical lines and fixed gear across the region.

### **1. Gear and Effort Reduction**

Management strategies that achieve high catch efficiency and high catch per unit effort should be the goal of any fishery. Provided that robust catch levels can be maintained, fewer traps, fewer labor hours, less fuel, and less maintenance are all benefits for a fishery. These strategies will also benefit NARWs that will face lower risk levels from less gear.

A number of studies evaluating management strategies in the United States and Canada have shown that improved fishing strategies, including significant trap reductions, can maintain catch levels. If these trap reductions result in corresponding vertical line reductions through effective regulation, this can be expected to reduce risk to NARWs.<sup>52</sup>

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<sup>51</sup> E. L. Hazen et al., *A dynamic ocean management tool to reduce bycatch and support sustainable fisheries*, *Sci. Adv.* 4, eaar3001 (May 30, 2018), <https://advances.sciencemag.org/content/4/5/eaar3001>

<sup>52</sup> Carl Wilson, *Manipulative Trapping Experiments In The Monhegan Island Lobster Conservation Area*, ME DMR Report (January 2010), [https://www.nefsc.noaa.gov/coopresearch/pdfs/2005\\_Wilson\\_Monhegan\\_Trapping\\_05-](https://www.nefsc.noaa.gov/coopresearch/pdfs/2005_Wilson_Monhegan_Trapping_05-)

To capitalize on this win-win strategy, the EIS should explore regionwide trap reduction alternatives for NARW conservation to meet risk reduction goals.

## **2. Vertical Line Reduction**

Every vertical line in the water increases the entanglement risk for NARWs, so the EIS should include a range of alternatives to reduce vertical lines with a clear measurable standard for this risk.

The regional reductions developed by the ALWTRT are sound and consider existing regulations that vary by region. Considering the uncertainty in state-level rulemaking, the EIS should explore specific options to reach these alternatives if state-level rulemaking processes are delayed or the states renege on the alternative that they agreed to at the April 2019 ALWTRT meeting.

## **3. Development and Use of New Technologies**

The past few decades have seen significant improvements in technology, including for fisheries. Development and adoption of new technologies should be supported by the ALWTRP and the Fisheries Service must include alternatives in the EIS that consider existing and future new technology. Oceana encourages the Fisheries Service to use the current rulemaking to create the necessary regulatory tools to support and incentivize this innovation in the ALWTRP fisheries.

### **a. Ropeless Technology**

Researchers around the world, including on the U.S. East and West Coasts, are currently testing different techniques to remove vertical lines from fixed gear fisheries through “ropeless” technology – some releasing a rope or deploying an air-filled bag that lifts the gear to the surface when the boat is nearby and signals to the device. Allowing and encouraging fixed gear fisheries to transition to ropeless methods to find and retrieve traps and nets could greatly reduce the dangers these fisheries pose to whales and other wildlife while allowing fisheries to continue in traditional fishing areas

Oceana encourages the Fisheries Service to use the current rulemaking to create a pathway to test and use ropeless technology in U.S. Atlantic fixed gear fisheries and to provide incentives to exempt these technologies from some regulations if and when the gear is demonstrated to be low or zero risk for whale entanglement.

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[949 final.pdf](#); Myers et al., *Saving endangered whales at no cost*, Current Biology, Vol 17 No 1 (January 9, 2007), <https://www.sciencedirect.com/science/article/pii/S0960982206025267>.

Furthermore, Oceana understands the gear conflicts that exist between mobile and fixed gear fisheries in the Northeast region. While informal agreements and understandings often resolve these issues, regulatory action is sometimes needed. It appears that the Fisheries Service's intervention in coordination with the Regional Fisheries Management Councils may be necessary to support wider use of new gears. Oceana encourages the Fisheries Service to begin this work immediately to prepare new gears to be ready for use in the coming years.

Finally, Oceana encourages the Fisheries Service to prioritize development and testing of gears that will improve trap efficiency, reduce entanglement risk and otherwise respond to entanglement issues in the upcoming Bycatch Reduction Engineering Program (BREP) funding opportunity. Innovation needs financial support and the NARW crisis warrants this highly successful program's attention.

### **C. Fishery Monitoring and Reporting**

Accurate, precise and timely monitoring of interactions with protected species are fundamental elements of both the MMPA and Endangered Species Act. Effective monitoring allows the agency to monitor takes against the PBR and ITS levels to determine when further management action is necessary to ensure that affected fisheries are achieving their goals and meeting their obligations under the law. Currently, monitoring of the fisheries under the ALWTRP is poor, with low-quality fundamental information about catch, effort, bycatch and other characteristics of the fisheries. The Fisheries Service must consider measures in the current ALWTRP action to significantly improve fisheries monitoring.

Specifically, the Fisheries Service must include alternatives in the EIS that consider requirements for spatial monitoring, effort monitoring and associated catch, bycatch and entanglement monitoring.

#### **1. Spatial Monitoring**

Knowing where and when fishing is taking place is critical for understanding the risk of entanglement to large whales. While Vessel Monitoring Systems (VMS) have been the norm in the past, lower-cost technologies are available today that will provide necessary fine-scale information for informing fishery management. The EIS should include a full consideration of VMS as well as alternative technologies to add monitoring to the TRP.

#### **2. Automatic Identification System**

Automatic Identification System (AIS) is a tracking system that automatically transmits a vessel's identity, speed and GPS location. Initially developed to prevent collisions of ships at sea, AIS is also used to exchange navigational data and to locate and identify vessels and track movements. AIS is currently required on U.S. commercial fishing vessels 65 feet and longer



while operating within the U.S. territorial sea. AIS tracking systems cost \$1,500 or less and have no operating costs while providing high-quality information about fishing activity that is already being used around the world to visualize, track and share data about global fishing activity in near real-time.<sup>53</sup>

### **3. Private Monitoring Technology**

Other monitoring technologies have been developed that provide low-cost spatial monitoring. For example, Pelagic Data Systems provides a new solar powered, low-cost technology to collect high resolution spatial data at sea.<sup>54</sup> The EIS should explore these alternatives as reasonable alternatives to collect important information about these fisheries.

### **4. Catch and Bycatch Monitoring**

As discussed above, accurate, precise and timely monitoring of interactions with protected species are fundamental elements of both the MMPA and Endangered Species Act. The agency has recognized the need to improve monitoring of Northeast region trap/pot fisheries with the recent inclusion of these fisheries in the list of “gear modes” that receive observer coverage under the Northeast Region Standardized Bycatch Reporting Methodology.<sup>55</sup> At this time, however, coverage for these portions of the fishery are exceedingly low and does not generate information that is useful for informing management of the fishery or about interactions with protected species. For example, in the current observer scheduling year, the trap/pot fisheries in the entire Northeast region are scheduled to receive a total of 154 observer days to cover more than 38,000 fishing days reported on Vessel Trip Reports. This represents less than one half of one percent of fishing trips and cannot be used as a statistically robust source to provide information about catch or bycatch in the fishery.

Oceana understands that monitoring rare events like whale interactions is a difficult task. Because of the statutory obligations to monitor takes, however, the EIS must do more to explore improvements to independent monitoring of the U.S. trap/pot fisheries.

Oceana suggests that the Fisheries Service include alternative statistical standards for monitoring in the EIS and then explore alternatives to use both human and electronic catch monitoring.

## **CONCLUSION AND CALL FOR ACTION**

The NARW population is in critical danger and has suffered extensive losses well beyond PBR and ZMRG for years. Existing measures have not been effective at meeting MMPA requirements or adequately reducing entanglement threats. Consequently, the Fisheries Service should utilize

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<sup>53</sup> See Global Fishing Watch. [Globalfishingwatch.org](http://globalfishingwatch.org).

<sup>54</sup> See Pelagic Data Systems, *How It Works*, <http://www.pelagicdata.com> (last visited August 30, 2019).

<sup>55</sup> 2019 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation. NOAA Technical Memorandum National Marine Fisheries Service-NE-255. <https://www.nefsc.noaa.gov/publications/tm/tm255/> (last visited, August 30, 2019)

its given authorities to implement new measures for NARW protection. At current mortality and serious injury rates, NARWs are headed for functional extinction. The most logical strategy to prevent entanglement is to eliminate the chances for NARWs to encounter fishing gear. Responses to the currently ongoing UME should therefore include proposed gear reductions and modifications, fishery monitoring and reporting, and time-area management considerations.

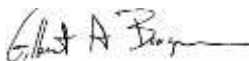
The Fisheries Service has explicit discretionary authority under the MMPA to restrict the use of fishing gear or to close areas to fishing to protect marine mammals such as NARWs. The MMPA also provides emergency authority for the Fisheries Service to restrict areas to fishing in response to an emergency scenario, such as the current critical state of NARW mortalities, which exceed PBR and statutory take reduction goal timeframes. The Endangered Species Act gives the Fisheries Service authority to protect NARWs as well. Based on the Section 7 Biological Opinion issued in 2001, the Fisheries Service determined that Dynamic Area Management was a reasonable and prudent alternative or measure. This determination led to implementation of a Dynamic Area Management Program from 2002 to 2009. Authority to implement area-based closures, among other proposed measures, under the ALWTRP remains in the MMPA. The Fisheries Service should make considerations of these alternatives a priority to prevent future mortalities and serious injury.

Oceana recommends that, in addition to the alternatives included in the April 2019 ALWTRT majority alternative, the agency include the following in the reasonable range of alternatives developed and considered in the ALWTRP EIS:

- Time-area management including static and dynamic area closures;
- Gear reduction, modification and line reduction: and
- Fishery monitoring and reporting.
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Oceana appreciates the opportunity to provide input. Thank you for your time and consideration of these comments. We will continue to be engaged in this process moving forward.

Sincerely,



Gib Brogan

Fisheries Campaign Manager

Oceana

## Comments on Atlantic Large Whale Take Reduction Plan Scoping

September 16, 2019

Page 18 of 18

### Attachment: ALWTRT Cross-Caucus Outcomes as Presented and Voted Upon 4/26/2019

Note the discrepancy between sleeves and 1700 lb rope – although we think they are equivalent, the sleeves provide a 43% reduction everywhere and the 1700 lb rope gets you only 31% reduction everywhere.

Region wide: Revisit need for weak link if weak lines are required.

ME: LMA1

50% VL reduction

$\frac{3}{4}$  toppers on all gear outside of 3 miles = 0.75 (weak rope) x 0.31 (1700lb rope reduction) X 0.50 (50% VL reduction) = 11.6% + 50% VL reduction = 61.5% reduction

Caution re. need to consider unintended consequences; develop best practices to avoid issues such as increasing rope diam/strength.

For all – safety exemption for young fishermen, nearshore, shallow waters – the Dwight exemption.

MA: LMA1

30% VL reduction

Sleeves or their equivalent everywhere (11% risk reduction)

24% credit for the MA Bay closure (per Burton's calculations)

Eliminate the vertical reduction for the fishermen closed out of MBRA (ca 100 fishermen out of 500 LMA1 MA fishermen, or 20% , an increase in risk across MA of 5%

24% (closure credit) + 30% (VL reduction) + 11% (sleeves or equivalent everywhere) = 65% - 5% = 60% (the 5% is an exemption for VL reduction for closed out fishermen)

(Note, some of the source data for this calculation needs confirming)

RI: (LMA 2) Indications are that they will reduce endlines by 18% in the next three years. Willing to use 1700lb sleeves or equivalent everywhere – with credit for 18% endline reduction, plus 43% sleeve reduction or equivalent, reaches approximately 60% reduction 30% from current numbers.

RI offers amendment: trawl up from 20 to 30 pots in 2/3 overlap as a component of their 30% line reduction

NH: (LMA1) General agreement of 30% VL reduction and 1700lb or sleeves throughout fishery in LMA1. Reaches 58.5% risk reduction.

Offshore/ LMA3: Needs rapid research program to address risk reduction efforts, fishermen in principal agree to reducing risk through a combination of VL reduction (underway) and other measures. Through 50 fathoms depth, 1700 lb breaking strength or equivalent; work with industry to identify the specifics of how practical, for presentation to Team. Five-year rapid research commitment related to lower weight breaking strength and other risk reduction measures. Calculate ongoing Area 3 risk reduction of 18%, 2018 – 2020. Goal: responsible like other LMAs for meeting the 60% risk reduction

General recommendations:

Re-do poll using expert elicitation methods to converge on better severity/risk reduction estimates. Address uncertainty vs. published data.

Develop monitoring plan, including whale surveys, gear surveys to monitor efficacy over time. Monitor evolution of implementation (fishermen, fisheries, innovations that can be encompassed).

APPENDIX III

Oceana Comment Letter on the Draft Biological Opinion (Feb. 19, 2021)

*(See attached.)*

February 19, 2021

Via email: [nmfs.gar.fisheriesbiopfeedback@noaa.gov](mailto:nmfs.gar.fisheriesbiopfeedback@noaa.gov)

Attention:

Jennifer Anderson, Assistant Regional Administrator for Protected Resources

Email: [jennifer.anderson@noaa.gov](mailto:jennifer.anderson@noaa.gov)

Phone: 978-281-9226

Sarah Bland, Assistant Regional Administrator for Sustainable Fisheries

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Phone: 978-281-9257

National Marine Fisheries Service

Greater Atlantic Regional Fisheries Office

55 Great Republic Drive

Gloucester, MA 01930

Phone: 978-281-9300

**Re: Oceana's Comments on the Draft Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council's Omnibus Essential Fish Habitat Amendment 2 [Consultation No. GARFO-2017-00031]**

Dear Jennifer Anderson and Sarah Bland:

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the U.S. Atlantic seaboard. Oceana has been engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species for more than 15 years, with a particular interest in effective bycatch minimization and reducing, if not eliminating, fishing gear entanglement-related death, injury, and harm to protected species, including the critically endangered North Atlantic right whale (NARW).

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 2 of 24

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>1</sup> The two main human-caused threats to NARWS – vessel strikes and fishing entanglement – are the main source of the decline, and possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related whale behavior changes.<sup>2</sup> In 2017, due to new information on the decline of the NARW as well as the exceedance of incidental take of this protected species, the Fisheries Service reinitiated Endangered Species Act (ESA) Section 7 formal consultations for the lobster fishery and the “batched” fisheries.<sup>3</sup> Recognizing the high degree of overlap between the Jonah crab fishery and the lobster fishery, the Fisheries Service included the Jonah crab fishery in the consultation as well.<sup>4</sup> In addition, the agency included consultations on a New England Fishery Management Council essential fish habitat amendment.<sup>5</sup> On January 15, 2021, the Fisheries Service issued the Draft Biological Opinion (Draft BiOp) addressing the impacts of the fisheries and the essential fish habitat amendment on ESA-listed species for public review and comment.

In light of Oceana's interest in protecting NARWs from entanglement in fishing gear, Oceana appreciates the opportunity to provide comments on the Draft BiOp. Oceana believes that the Draft BiOp fails to meet the requirements of the Endangered Species Act (ESA) as well as the Marine Mammal Protection Act (MMPA). Specifically, the Draft BiOp fails to adequately evaluate the impacts of the authorized fisheries on endangered and depleted NARWs and fails to provide a conservation framework or Reasonably Prudent Measures that will prevent the further decline of the species. The Draft BiOp is also misaligned with the Fisheries Service's recently published North Atlantic Right Whale Proposed Risk Reduction Rule for Fishing Entanglement in Fixed Fishing Gear in the Waters of the U.S. Northeast (proposed Risk Reduction Rule), and thus fails to satisfy the Fisheries Service's obligation to align its rulemakings under the ESA with the requirements of the MMPA.

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<sup>1</sup> *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, NOAA Fisheries (last updated May 10, 2019), <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures>.

<sup>2</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (Sept. 18, 2018) at 7, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw\\_brief\\_for\\_alwtrt\\_09\\_18\\_18.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw_brief_for_alwtrt_09_18_18.pdf).

<sup>3</sup> Draft BiOp at 19-21 (The “batched fisheries” refers to the bluefish, Atlantic mackerel/squid/butterfish, monkfish, Northeast multispecies, Northeast skate complex, spiny dogfish, and summer flounder/scup/black seabass fisheries); see also Michael J. Asaro, *Update on NOAA Fisheries Right Whale Recovery Actions*, NOAA Fisheries (November 30, 2017) at 6, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro\\_trtwebinar\\_nov2017.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro_trtwebinar_nov2017.pdf).

<sup>4</sup> Draft BiOp at 21.

<sup>5</sup> The Fisheries Service must comprehensively analyze impacts to ESA-listed species from implementation of the essential fish habitat amendment, which implicates the following New England fisheries: Atlantic deep sea red crab, Atlantic herring, Atlantic salmon, Atlantic sea scallop, monkfish, Northeast multispecies, and skate. *Id.* at 22.

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 3 of 24

In order to correct the inadequacies of the Draft BiOp, Oceana urges the Fisheries Service to take the following actions:

- specify measures that will adequately and effectively reduce risks to NARWs *now* (not 10 years from now as proposed in the NARW Conservation Framework) to prevent the further decline of the species;
- account for the notable impact on critical NARWs habitat caused by the presence of hundreds of thousands of vertical trap/pot lines;
- use “the best scientific and commercial data available” to conduct analysis of impacts to NARWs;
- reduce the number of sub-lethal NARW takes authorized in the fishery; and
- account for the cumulative effects on NARWs of vessel strikes and other human activities, including impacts in Canadian waters.

AND, in the interim . . .

- take emergency measures immediately using authority under the ESA, MMPA, and the Magnuson-Stevens Fisheries Conservation and Management Act (MSA) to significantly reduce the impact of fishing gear entanglement on NARWs (e.g., dynamic management areas).

### LEGAL BACKGROUND

Formal intra-Fisheries Service consultations between the Protected Resources and the Sustainable Fisheries divisions of the Greater Atlantic Regional Fisheries Office to authorize the lobster, Jonah crab, and “batched” fisheries and to implement the essential fish habitat amendment must be conducted in accordance with the requirements of the ESA and the MMPA. The agency must also manage and authorize the fisheries and any essential fish habitat in accordance with the MSA and the Atlantic Coastal Fisheries Cooperative Management Act (ACA). A failure to abide by statutory requirements will lead to legal challenges to the final BiOp.

## I. ENDANGERED SPECIES ACT

### a. Goals of the Statute

The ESA was enacted in 1973 to “halt and reverse the trend toward species extinction, whatever the cost.”<sup>6</sup> The statute declares it “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of [this] purpose.”<sup>7</sup> To meet this goal, Section 9 of the ESA prohibits the “take” of all endangered species, including NARWs, unless specifically authorized.<sup>8</sup> “Take” is defined under the ESA as “to harass, harm, pursue, hunt, shot, wound, kill, trap, capture or collect” a protected species.<sup>9</sup> Exceptions to the ESA prohibition on “take” are only allowed if statutory requirements are met, including via the Section 7 consultations process.

### b. ESA Section 7 Consultation

Section 7 of the ESA requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency, including the authorization of fisheries, is not likely to jeopardize the continued existence of ESA-listed species or destroy or adversely modify critical habitat.<sup>10</sup> ESA Section 7 consultation ends in the publication of a Biological Opinion (BiOp) that not only includes a determination of whether the activity will jeopardize the continued existence of the species but also identifies measures to mitigate the effects of the activity on the species.<sup>11</sup>

The Fisheries Service is required to use “the best scientific and commercial data available” in analyzing impacts and formulating the BiOp.<sup>12</sup> For example, a BiOp must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>13</sup>

“Jeopardize” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”<sup>14</sup>

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<sup>6</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>7</sup> 16 U.S.C. § 1531(c)(1).

<sup>8</sup> 16 U.S.C. § 1538(a)(1)(B).

<sup>9</sup> 16 U.S.C. § 1532(19).

<sup>10</sup> 16 U.S.C. § 1536(a)(2).

<sup>11</sup> *Id.* § 1536(c).

<sup>12</sup> 50 C.F.R. § 402.14(g)(8).

<sup>13</sup> 50 C.F.R. § 402.14(g)(8), (h)(2).

<sup>14</sup> 50 C.F.R. § 402.02; *see also Defenders of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1101 (E.D. Wash. 2006).



When developing its jeopardy determination, “the consulting agency evaluates the current status of the listed species or critical habitat, the effects of the action, and cumulative effects.”<sup>15</sup> If an agency action related to a fishery is expected to jeopardize the species, the BiOp will include non-discretionary Reasonable and Prudent Alternatives and a list of Terms and Conditions for the fishery.<sup>16</sup> If the agency action related to a fishery is determined not to jeopardize the species, the BiOp will include more flexible Reasonable and Prudent Measures and a list of Terms and Conditions for the fishery.<sup>17</sup>

Importantly, the BiOp must also include an Incidental Take Statement (ITS) that authorizes and specifies the level of acceptable take for the fishery that will not trigger future consultation.<sup>18</sup> The ITS has two purposes. First, it provides a safe harbor for a specified level of incidental take.<sup>19</sup> A fishery authorized subject to an ITS may incidentally (but not intentionally) take endangered species, which is otherwise illegal.<sup>20</sup> If the fishery exceeds the take specified in the ITS, however, the safe harbor no longer applies, and the fishery and its participants are liable for violating the ESA.<sup>21</sup> Any person who knowingly “takes,” that is, causes lethal or sub-lethal harm to, an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment (civil fines of up to \$25,000 per violation and criminal penalties of up to \$50,000 and imprisonment for up to a year).<sup>22</sup> Second, the ITS provides a trigger.<sup>23</sup> The BiOp and ITS include a requirement that the Fisheries Service must effectively monitor takes in a fishery against the trigger specified in the ITS.<sup>24</sup> If the authorized fishery exceeds the trigger, i.e., the level of “take” specified in the ITS, the Fisheries Service must immediately reinstate ESA Section 7 consultation to reevaluate impacts of the fishery to ESA-listed species.<sup>25</sup> For ESA-listed marine mammals, the ITS must include a discussion of measures necessary to comply with the MMPA, which, as discussed below, imposes additional conditions on the Fisheries Service’s ability to authorize the take of endangered marine mammals.

### **c. Emergency Action under the ESA**

The Fisheries Service has authority under the ESA to take emergency action when there is an “emergency posing a significant risk to the well-being of any species of fish or wildlife or

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<sup>15</sup> *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 481 F.3d 1224, 1230 (9th Cir. 2007) (citing 50 C.F.R. § 402.14(g)(2)–(3)) (internal quotations omitted).

<sup>16</sup> 16 U.S.C. § 1536(b)(3)(A).

<sup>17</sup> *Id.* § 1536(b)(4).

<sup>18</sup> 50 C.F.R. § 402.14(i).

<sup>19</sup> *See Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 909 (9th Cir. 2012).

<sup>20</sup> *Id.*

<sup>21</sup> 16 U.S.C. § 1540(a), (b); *see also Bennett v. Spear*, 520 U.S. 154, 170 (1997).

<sup>22</sup> 16 U.S.C. § 1540(a), (b).

<sup>23</sup> *Ctr. for Biological Diversity*, 695 F.3d at 909.

<sup>24</sup> 50 C.F.R. § 402.14(i).

<sup>25</sup> *Id.*

plants.”<sup>26</sup> When taking such emergency action, the Fisheries Service can bypass standard ESA and Administrative Procedure Act rulemaking procedures to issue emergency regulations to protect a species.<sup>27</sup>

## **II. MARINE MAMMAL PROTECTION ACT**

### **a. Goals of the Statute**

Since 1972, the MMPA has afforded special protection to marine mammal species from a wide range of threats. To protect marine mammals, such as NARWs, from human activities, the MMPA establishes a moratorium on the “take” of marine mammals.<sup>28</sup> The MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>29</sup> In limited circumstances, the Fisheries Service,<sup>30</sup> may grant exceptions to the take moratorium, such as for the incidental, but not intentional, taking of marine mammals for certain activities, which is done via an incidental take authorization.<sup>31</sup>

At the heart of the MMPA’s science-driven approach to conservation, management and recovery of marine mammals are the goals of maintaining the optimum sustainable population and ecosystem function of marine mammal stocks, restoring depleted stocks to their optimum sustainable population levels, and reducing mortality and serious injury (bycatch) of marine mammals incidental to commercial fishing operations to insignificant levels. To achieve these overarching goals, the MMPA prohibits taking of marine mammals, with certain exceptions, including for commercial fisheries.<sup>32</sup> Ultimately, the MMPA mandates a Zero Mortality Rate Goal, i.e., marine mammal mortality in commercial fisheries should achieve a zero mortality and serious injury rate to a level approaching zero, by April 2001.<sup>33</sup> Clearly, the Zero Mortality Rate Goal for marine mammal “take” in commercial fisheries has not been met, indicating the Fisheries Service’s failure to effectively implement and enforce this bedrock environmental law.

The MMPA requires fisheries to achieve an interim goal of Potential Biological Removal (PBR).<sup>34</sup> The PBR is calculated based on the dynamics of a species or mammal stock to be “(t)he

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<sup>26</sup> 16 U.S.C. § 1533(b)(7).

<sup>27</sup> *Id.*

<sup>28</sup> 16 U.S.C. §§ 1361(2), 1371.

<sup>29</sup> 16 U.S.C. § 1362(13).

<sup>30</sup> The Fish and Wildlife Service, within the Department of the Interior, is responsible for dugongs, manatees, polar bears, sea otters and walruses. See U.S. Fish and Wildlife Service, *Marine Mammals*, <https://www.fws.gov/international/animals/marine-mammals.html> (last visited Feb. 18, 2021).

<sup>31</sup> 16 U.S.C. § 1371(a); Fisheries Service, *Incidental Take Authorizations under the MMPA*, <https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act> (last updated June 24, 2020) (listing oil and gas exploration as an activity for which incidental take authorizations have been issued).

<sup>32</sup> 16 U.S.C. § 1371(a), 1371(a)(5)(E).

<sup>33</sup> 16 U.S.C. § 1387(b).

<sup>34</sup> *Id.* § 1387(f).

maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.”<sup>35</sup> This requirement is the guiding metric of success for recovering marine mammal species and for incidental fishing mortality reductions. Any “take” over PBR is unauthorized. When “take” exceeds PBR, a Take Reduction Plan (TRP) (discussed below) must be developed. In addition, if a commercial fisher has not registered their vessel and received an incidental take authorization (discussed below), then any “take” of a marine mammal species is subject to substantial civil fine and a knowing violation is subject criminal penalties, including imprisonment (civil fines of up to \$10,000 per violation and criminal penalties of up to \$20,000 per violation and imprisonment for up to a year).<sup>36</sup>

In the 2018 Stock Assessment Report for NARWs, PBR was calculated to be 0.9 mortalities or incidents of serious injury per year.<sup>37</sup> The 2019 Stock Assessment Report for NARWs calculates PBR at 0.8.<sup>38</sup> The draft 2020 Stock Assessment Report similarly calculates PBR at 0.8.<sup>39</sup> However, as the Fisheries Service has recently acknowledged, the population of NARWs must be revised downward – from 412 to 366 as of January 2019 – in part because “the impact of the ongoing Unusual Mortality Event (UME) – declared in 2017 and involving 42 individuals [as of October 2020] – was worse than previously thought”; as a result, PBR will likely be even lower in the 2021 Stock Assessment Report.<sup>40</sup> In other words, *less than one* NARW may be killed or seriously injured by human actions each year for the species to achieve optimum sustainable population.

#### **b. Take Reduction Teams/Take Reduction Plans**

To achieve the goals of the MMPA, the Fisheries Service convenes Take Reduction Teams (TRTs) - interdisciplinary groups tasked with the development of Take Reduction Plans (TRPs).<sup>41</sup> TRT members are selected for their expertise regarding the conservation and biology of the marine mammal species or expertise regarding the fishing practices that result in the take of such species. TRTs are assembled to respond to specific needs and reconvene when the conservation needs of an MMPA-protected species necessitate changes to regulations.

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<sup>35</sup> 16 U.S.C § 1362(20).

<sup>36</sup> 16 U.S.C. § 1375(a), (b).

<sup>37</sup> “2018 Marine Mammal Stock Assessment Reports,” 84 Fed. Reg. 28,489, 28,496 (June 19, 2019).

<sup>38</sup> NOAA Fisheries, *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports – 2019, North Atlantic Right Whale* (Apr. 2020) at 6, [https://media.fisheries.noaa.gov/dam-migration/2019\\_sars\\_atlantic\\_northatlanticrightwhale.pdf](https://media.fisheries.noaa.gov/dam-migration/2019_sars_atlantic_northatlanticrightwhale.pdf).

<sup>39</sup> NOAA Fisheries, *DRAFT - U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports – 2020, North Atlantic Right Whale* (Aug. 2020) at 45, <https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-12/Draft%202020%20Atlantic-Gulf-marine%20mammal%20stock%20assessment%20reports.pdf?null>.

<sup>40</sup> Email from Colleen Coogan to ALWTRT Members and Alternates (Oct. 26, 2020).

<sup>41</sup> *Marine Mammal Take Reduction Plans and Teams*, NOAA Fisheries (last updated Aug. 8, 2019), <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams>.

The overarching goal of each TRP is “to reduce, within 5 years of [the plan’s] implementation, the incidental mortality or serious injury of marine mammals...to insignificant levels approaching a zero mortality and serious injury rate, taking into account the economics of the fishery, the availability of existing technology, and existing State or regional fishery management plans.”<sup>42</sup> This so-called Zero Mortality Rate Goal is the ultimate goal of marine mammal conservation in each TRP in the United States, with achievement of PBR acting as an intermediate step towards recovery.<sup>43</sup>

To accomplish this important task, each TRP contains a review of recent stock assessments and estimates of the total number of marine mammals being taken annually by species and by fishery. The TRP then explores recommended regulatory and voluntary measures and the expected percentage of the required bycatch reduction that will be achieved by each measure. The TRP must also include a discussion of alternate management measures considered and reviewed by the TRT and a rationale for their rejection. Finally, a TRP must include monitoring plans to determine the success of each measure and a timeline for achieving specific objectives of the TRP.<sup>44</sup>

The Atlantic Large Whale Take Reduction Team (ALWTRT) has been in effect since 1996.<sup>45</sup> The Atlantic Large Whale Take Reduction Plan (ALWTRP) was first implemented in 1997.<sup>46</sup> The ALWTRT has advised the Fisheries Service on more than a dozen rules and regulations since then to modify fisheries managed under the ALWTRP.<sup>47</sup> Recent amendments to the ALWTRP include the December 31, 2020 proposed Risk Reduction Rule related to two of the fisheries – the lobster and Jonah crab fisheries – analyzed in the Draft BiOp.

### **c. ESA Section 7 Consultation and MMPA Section 101(a)(5) Requirements**

ESA-listed marine mammal stocks fall under the jurisdiction of both the MMPA and ESA, and the Fisheries Service has a concurrent responsibility to satisfy the requirements of both laws. The MMPA and the ESA work in tandem to protect endangered marine mammals. Indeed, Congress “intended that the decision processes under the [MMPA and ESA] be coordinated and integrated to the maximum extent possible.”<sup>48</sup> Congress manifested this intention by incorporating the MMPA into the ESA’s incidental take statement requirement.<sup>49</sup> Specifically,

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<sup>42</sup> 16 U.S.C. § 1387(f)(2).

<sup>43</sup> 16 U.S.C. § 1387(b).

<sup>44</sup> NOAA Fisheries Marine Mammal Take Reduction Plans and Teams Website:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams#take-reduction-plan-content> (last visited Sept. 6, 2019).

<sup>45</sup> *Atlantic Large Whale Take Reduction Plan: The Take Reduction Team*, NOAA Fisheries,

<https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/atlantic-large-whale-take-reduction-plan> (last visited Aug. 16, 2019).

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> See 132 Cong. Rec. H10453-02, 132 Cong. Rec. H10453-02 (1986) (stating the 1986 amendments to the ESA “reflect the changes to the MMPA and ... clarify the relationship between the two statutes. It is intended that the decision processes under the involved statutes be coordinated and integrated to the maximum extent practicable.”).

<sup>49</sup> 16 U.S.C. § 1536(b)(4)(C).

Section 7(b)(4)(C) of the ESA provides that when the action under consultation will incidentally take endangered marine mammal species, the Service must ensure that the taking “is authorized pursuant to section 101(a)(5) of the Marine Mammal Protection Act.”<sup>50</sup>

As part of the Marine Mammal Authorization Program, the Fisheries Service maintains the MMPA List of Fisheries that interact with marine mammals, which is updated annually. The list includes three categories. Category I lists fisheries that have frequent incidental mortality and serious injury for a marine mammal species (i.e., greater than or equal to 50% of PBR). Category II lists fisheries with occasional incidental mortality and serious injury (i.e., greater than 1% but less than 50% PBR). Category III lists fisheries with a remote likelihood of no know incidental mortality or serious injury (less than or equal to 1% of PBR).<sup>51</sup> Effective as of February 16, 2021, the Fisheries Service’s MMPA List of Fisheries includes both the lobster and Jonah crab fisheries as Category II fisheries that have “occasional interactions” with large whales. While the NARW is listed as a marine mammal with which the lobster fishery interacts, the species is not listed for the Jonah crab fishery.<sup>52</sup> Fisheries listed in Category I or II must apply for and receive a permit from the Fisheries Service, and U.S. flagged fishing vessels must register with the Fisheries Service and display a valid authorization decal.<sup>53</sup>

Authorization of incidental take of *endangered* marine mammals, such as the NARW, for commercial fisheries with frequent (MMPA Category I)<sup>54</sup> or occasional (MMPA Category II)<sup>55</sup> incidental mortality or serious injury requires additional steps.<sup>56</sup> The Fisheries Service must first publish in the Federal Register a separate list of fisheries allowed to engage in such takes (“MMPA 101(a)(5)(E) list”).<sup>57</sup> To add a fishery to the MMPA 101(a)(5)(E) list, the Fisheries Service must make certain determinations. Specifically, for every endangered marine mammal

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<sup>50</sup> *Id.*

<sup>51</sup> 16 U.S.C. § 1387(c).

<sup>52</sup> See NOAA Fisheries, *Marine Mammal Protection – List of Fisheries Summary Tables*, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/list-fisheries-summary-tables> (last updated Feb. 5, 2021).

<sup>53</sup> 16 U.S.C. § 1387(c).

<sup>54</sup> MMPA Category I fisheries are fisheries that have frequent incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>55</sup> MMPA Category II fisheries are fisheries that have occasional incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>56</sup> 16 U.S.C. § 1387(a)(2) (noting that “[i]n the case of the incidental taking of marine mammals from species or stocks designated under this Act as depleted on the basis of their listing as threatened species or endangered species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), both this section and section 1371(a)(5)(E) of this Act shall apply” (emphasis added)).

<sup>57</sup> *Id.* § 1371(a)(5)(E). Please note that this is a different List of Fisheries than the one for non-endangered marine mammals called the “Marine Mammal Authorization Program.” *See* 16 U.S.C. § 1382(a).

for which the Fisheries Service plans to issue an incidental take authorization, the Fisheries Service must determine:

- the incidental mortality and serious injury from the fishery will have a “negligible impact” on the species;<sup>58</sup>
- a recovery plan has been developed or is being developed for the species;<sup>59</sup> and
- a monitoring program and a TRP is or will be in place for the species.<sup>60</sup>

After making this determination for every endangered marine mammal that a fishery takes, the Fisheries Service can add the fishery to the MMPA 101(a)(5)(E) list.<sup>61</sup> Only upon the publication of the MMPA 101(a)(5)(E) list are vessels operating in these fisheries eligible to receive incidental take authorizations.<sup>62</sup> These incidental take authorizations are valid for up to three years.<sup>63</sup> Any incidental take of marine mammals by commercial fisheries, therefore, is illegal without the publication of an MMPA 101(a)(5)(E) list and the accompanying determinations described above. The Fisheries Service is delinquent in its duty to publish this MMPA 101(a)(5)(E) list and to issue incidental take authorization as required by the statute.

The publication of the MMPA 101(a)(5)(E) list, however, does not conclude the Fisheries Service's duty. Since the Fisheries Service is authorizing take of *endangered* marine mammals, the ESA also applies. The Fisheries Service must publish a BiOp with an ITS.<sup>64</sup> Moreover, as described above, that ITS must include terms and conditions that detail how the authorized take will comply with the requirements of the MMPA.<sup>65</sup> Thus, for *endangered* marine mammals, the ITS must contain terms and conditions to ensure that any authorized take has only a “negligible impact” on the species.<sup>66</sup>

Even after completing these steps, the Fisheries Service's duty is not discharged. If the Fisheries Service determines that the incidental mortality or serious injury in a fishery has more

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<sup>58</sup> MMPA regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 216.103. For the latest guidance of “negligible impact” determinations in the context of MMPA Section 101(a)(5)(E), see National Marine Fisheries Service, Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E) (June 17, 2020), <https://media.fisheries.noaa.gov/dam-migration/02-204-02.pdf>.

<sup>59</sup> The MMPA does not specify a timeframe for when the recovery plan must be developed. There is also no case law on point for this specific issue.

<sup>60</sup> *Id.* § 1371(a)(5)(E)(i).

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

<sup>63</sup> 61 Fed. Reg. 64,500, 64,500 (Dec 5, 1996).

<sup>64</sup> 16 U.S.C. § 1536(b)(4).

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*; 16 U.S.C § 1371(a)(5).

than a “negligible impact” on an endangered species, then the agency must issue emergency regulations to protect the species.<sup>67</sup>

#### **d. Emergency Action under the MMPA**

If incidental mortality and serious injury during a commercial fishing season is having or is likely to have an immediate and significant adverse impact on a stock or species, and a TRP is being developed, then the Fisheries Service shall prescribe emergency regulations to reduce incidental mortality and serious injury in the fishery and approve and implement on an expedited basis, a plan to address adverse impacts.<sup>68</sup> The MMPA *requires* the Fisheries Service to act to protect an endangered species when the level of incidental mortality or serious injury from an authorized commercial fishery has resulted, or is likely to result in an impact that is “more than negligible.”<sup>69</sup>

### **III. MAGNUSON-STEVENSON ACT**

The Magnuson-Stevens Act of 1976 governs fishery management in U.S. federal waters. In addition to the statutory goals of fostering long-term biological and economical sustainability or marine fisheries, the Act requires the Fisheries Service to consult with relevant staff within the agency regarding any adverse effects authorizing commercial fisheries may have on essential fish habitat.<sup>70</sup> In addition, National Standard 9 of the MSA specifies that conservation and management measures shall, to the extent practicable, (a) minimize bycatch, and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.<sup>71</sup> The MSA also gives the Fisheries Service authority to issue emergency regulations to address “recent, unforeseen events or recently discovered circumstances” that “present serious conservation or management problems in the fishery.”<sup>72</sup>

### **IV. ATLANTIC COASTAL FISHERIES COOPERATIVE MANAGEMENT ACT (ACA)**

To facilitate effective interstate conservation and management of Atlantic coastal fishery resources, Congress authorized, via the ACA in 1993, the Atlantic States Marine Fisheries Commission (Commission), to work with states and the federal government on interstate coastal fishery management.<sup>73</sup> In particular, the Commission is the umbrella organization through which

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<sup>67</sup> 16 U.S.C. § 1371(a)(5)(E)(iii).

<sup>68</sup> 16 U.S.C. § 1387(g).

<sup>69</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii), 1387(g).

<sup>70</sup> 16 U.S.C. § 1855(b)(2) (stating that “[e]ach Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or *proposed to be authorized*, funded, or undertaken by such agency that may adversely affect any essential fish habitat identified under this Act.” (emphasis added)).

<sup>71</sup> 16 U.S.C. § 1851(a)(9).

<sup>72</sup> 16 U.S.C. § 1855(c); 62 Fed. Reg. 44,421-42 (Aug. 21, 1997).

<sup>73</sup> 16 U.S.C. § 5101 *et seq.*

the states and federal government manage, via interstate fishery management plans (ISFMP), the lobster and crab fishery in the U.S. exclusive economic zone.<sup>74</sup> All states must implement required conservation provisions of any ISFMP; if a state or states do not, then the Fisheries Service, acting on delegated authority from the Secretary of Commerce, may impose a moratorium on fishing in the noncompliant state's waters.<sup>75</sup>

## **V. RELATED LITIGATION**

### **a. Center for Biological Diversity v. Ross**

In January 2018, the Center for Biological Diversity, Defenders of Wildlife, and the Humane Society challenged the 2014 American lobster fishery BiOp under the ESA, MMPA, and APA for, among other things, failing to include an ITS in the BiOp in violation of the ESA. Conservation Law Foundation separately challenged on similar grounds, and the case was consolidated before the D.C. District Court. In April 2020, the Court decided to only address the ESA claim and found that the 2014 BiOp was invalid because it failed to include an ITS. At the remedy phase, the Court was not inclined to issue an injunction creating a closed area as requested by plaintiffs but did require the Fisheries Service to issue a new BiOp with an ITS by May 31, 2021.<sup>76</sup> The Draft BiOp, which is the subject of this comment letter, incorporates ESA Section 7 consultation and analysis of the impacts of the American lobster fishery on NARWs along with an ITS in an attempt to satisfy the Court's order.

### **b. Conservation Law Foundation v. Ross**

In May 2018, Conservation Law Foundation challenged the 2018 Omnibus Essential Fish Habitat Amendment 2 to open up the Nantucket Lightship Groundfish Closure Area and the Closed Area 1 Groundfish Closure Area to groundfish fishing gear after over 20 years of being closed. Conservation Law Foundation alleged that the Fisheries Service violated the ESA due to its failure to perform ESA Section 7 consultations for the proposed opening of these closed areas. In October 2019, the D.C. District Court found that the Fisheries Service had made a clear finding in the related 2016 environmental impact statement that the openings "may affect" NARWs; therefore, the agency did not have discretion to avoid ESA Section 7 consultations. In addition, the D.C. District Court issued an injunction preventing gillnet fishing in the two closed areas until the Fisheries Service has complied with the requirements of the ESA and the Magnuson-Stevens Act for Section 7 consultations, which are required for fishery management plan amendments.<sup>77</sup> The Draft BiOp, which is the subject of this comment letter, incorporates ESA Section 7 consultation for the Omnibus Essential Fish Habitat Amendment 2.

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<sup>74</sup> 50 C.F.R. § 697.5.

<sup>75</sup> 16 U.S.C. § 5106.

<sup>76</sup> *Ctr. for Biological Diversity v. Ross*, 2020 U.S. Dist. LEXIS 62550, 50 ELR 20088 (D.D.C. Apr. 2020);

<sup>77</sup> *Conservation Law Found. v. Ross*, 422 F. Supp. 3d 12 (D.D.C. 2019); *see also* 16 U.S.C. § 1854(a)(1)(A).



## FACTUAL BACKGROUND

### I. CHRONOLOGY OF NOTABLE AGENCY ACTIONS TO REDUCE TAKES OF LARGE WHALES IN ATLANTIC FISHERIES

Since its inception in 1996, the ALWTRT has developed a series of regulations to minimize takes of large whales, including NARWs, in U.S. Atlantic fisheries from Florida to the Canadian border.<sup>78</sup> These regulations were then implemented by the Fisheries Service to create, remove, and modify gear restrictions and to impose time-area management strategies to meet the goals and requirements of the MMPA and ESA.

These actions include two 2002 actions to create dynamic area management (DAM) and seasonal area management (SAM) programs,<sup>79</sup> a June 2007 rule to expand the Southeast U.S. Restricted Area and modify regulations for the gillnet fishery,<sup>80</sup> an October 2007 gear modification that eliminated the DAM program, replaced it with gear modifications and expanded SAM areas,<sup>81</sup> and most recently a “trawling up” rule to increase the minimum number of lobster traps that can be fished together on a string or “trawl” of traps in order to reduce the amount of vertical lines in the water.<sup>82</sup>

### II. RESULTS OF PAST EFFORTS AND CURRENT NEED FOR AGENCY ACTION

The ALWTRP significantly changed the management, administration and operations of a range of fisheries in the U.S. Atlantic. These measures had moderate success from the implementation of the ALWTRP in the 1990s through 2010.<sup>83</sup> During this time, large whales, particularly NARWs, experienced moderate recovery from a population size in the mid-200s to more than 480 in 2010.<sup>84</sup>

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>85</sup> The two main human-caused threats to NARWS – vessel strikes and fishing entanglement – are the main source of the decline, and possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related whale behavior

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<sup>78</sup> ALWTRP Interim Final Rule, 62 Fed. Reg. 39,157 (July 22, 1997). Conservation of minke, humpback, and fin whales is also included in this plan.

<sup>79</sup> DAM Final Rule, 67 Fed. Reg. 1133 (Jan. 9, 2002); SAM Interim Final Rule, 67 Fed. Reg. 1142 (Jan. 9, 2002).

<sup>80</sup> SE Modifications Final Rule, 72 Fed. Reg. 34,632 (June 25, 2007).

<sup>81</sup> Broad-based gear modification final rule, 72 Fed. Reg. 57,104 (Oct. 5, 2007).

<sup>82</sup> Final Rule, 79 Fed. Reg. 36,586 (June 27, 2014).

<sup>83</sup> *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, NOAA Fisheries (last updated May 10, 2019), <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures>.

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

changes.<sup>86</sup> In 2017, responding to an elevated number of observed NARW deaths, the Fisheries Service declared an Unusual Mortality Event (UME) for NARWs which is currently ongoing.<sup>87</sup> A UME is defined under the MMPA as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands *immediate* response.”<sup>88</sup>

### **a. Current Status of the NARW Population**

Once abundant in the oceans with a population range between 9,000 to 21,000 animals,<sup>89</sup> the North Atlantic right whale is currently one of the most endangered large whales on the planet.<sup>90</sup> Today, only around 360 NARWs remain, with fewer than 80 breeding females.<sup>91</sup>

North Atlantic right whales do not reach reproductive maturity until around 10 years of age. They typically only produce one calf after a year-long pregnancy every three to five years.<sup>92</sup> However, the trauma caused by chronic fishing gear entanglements and other stressors has now increased the calving interval to every 10 years.<sup>93</sup> As of February 16, 2021, there have been 15 new calves born for the 2020/2021 breeding season, including five calves from first-time

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<sup>86</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (Sept. 18, 2018) at 7, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw\\_brief\\_for\\_alwtrt\\_09\\_18\\_18.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw_brief_for_alwtrt_09_18_18.pdf).

<sup>87</sup> *2017-2019 North Atlantic Right Whale Unusual Mortality Event*, NOAA Fisheries, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 5, 2019).

<sup>88</sup> 16 U.S.C. § 1421h(6). The MMPA defines “stranding” as “an event in the wild in which - (A) a marine mammal is dead and is – (i) on the beach or shore of the United States; or (ii) in the waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is – (i) on a beach or shore of the United States and unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.” 16 U.S.C. § 1421h(3).

<sup>89</sup> Monsarrat S, Pennino MG, Smith TD, et al. (2016) A spatially explicit estimate of the prewhaling abundance of the endangered North Atlantic right whale: *Eubalaena glacialis* Historical Abundance. *Conservation Biology* 30: 783–791. doi: 10.1111/cobi.12664 E.H. Buck, *The North Atlantic Right Whale: Federal Management Issues*. Library of Congress: Congressional Research Service. Report No.: RL30907 (Mar. 29, 2001).

<sup>90</sup> NOAA Fisheries, *Species Directory – North Atlantic Right Whale*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Jan. 28, 2021).

<sup>91</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*, [https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf) (last visited Feb. 16, 2021).

<sup>92</sup> Scott D. Kraus, *Reproductive Parameters of the North Atlantic Right Whale*, 2 J. Cetacean Res. Manage. (Special Issue) 23 (2001).

<sup>93</sup> H.M Pettis et al., *North Atlantic Right Whale Consortium 2018 Annual Report Card*, <https://www.narwc.org/report-cards.html>.

moms.<sup>94</sup> However, on February 13, 2021 a months-old calf stranded in Florida after being struck by a vessel, making the total number of surviving calves this year 14.<sup>95</sup>

Since the UME began, a total of 33 dead NARWs have been found (21 in Canada and 12 in the United States). The leading cause of death for the UME is “human interaction,” with the two greatest threats being entanglements in fishing gear and vessel strikes.<sup>96</sup> Additionally, 14 live whales have been documented with serious injuries from entanglements in fishing gear and vessel strikes.<sup>97</sup> Actual whale mortality is likely much higher than these observed numbers, since observed NARW carcasses only accounted for 36% of all estimated deaths between 1990-2017.<sup>98</sup>

According to the Fisheries Service, the lobster and crab fisheries deploy about 93 percent of the fixed fishing gear in the waters of the U.S. Northeast where NARWs often transit and/or aggregate.<sup>99</sup> The fixed fishing gear used by these fisheries generally involves vertical buoy lines that connect down to lobster or crab traps/pots on the ocean floor. With over 900,000 buoy lines deployed annually in these two U.S. fisheries alone, these vertical lines in the water column present a significant threat of entanglement for NARWs.<sup>100</sup>

Fishing gear lines have been seen wrapped around NARWs’ mouths, fins, tails and bodies, which slows them down, making it difficult to swim, reproduce and feed, and can kill them.<sup>101</sup> The lines cut into the whales’ flesh, leading to life-threatening infections, and are so strong that they can sever fins and tails and cut into bone.<sup>102</sup>

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<sup>94</sup> NOAA Fisheries, North Atlantic Right Whale Calving Season 2021, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/north-atlantic-right-whale-calving-season-2021> (last updated Feb. 17, 2021)

<sup>95</sup> NOAA Fisheries, North Atlantic Right Whale Calf Stranded Dead in Florida (Feb. 14, 2021), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida>.

<sup>96</sup> NOAA Fisheries, 2017-2021 North Atlantic Right Whale Unusual Mortality Event, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Jan. 12, 2021).

<sup>97</sup> *Id.*

<sup>98</sup> Kraus SD, Brown MW, Caswell H, Clark CW and others (2005) North Atlantic right whales in crisis. *Science* 309: 561–562; *see also* Richard Pace et al., *Cryptic mortality of North Atlantic right whales*, *Conservation Science and Practice* Vol. 3, Issue 2 (Feb. 2, 2021), <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.346>.

<sup>99</sup> NOAA Fisheries, *Fact Sheet - Proposed “Risk Reduction Rule” to Modify the Atlantic Large Whale Take Reduction Plan* (Dec. 31, 2020), <https://media.fisheries.noaa.gov/2021-01/TRTFactSheetRev011221.pdf?null>.

<sup>100</sup> NOAA Fisheries, *Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending The Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule – Vol. II, Appendix 5.1, Exhibit 8* (Dec. 30, 2020), [https://www.greateratlantic.fisheries.noaa.gov/public/nema/PRD/DEIS\\_RIR\\_ALWTRP\\_RiskReductionRule\\_Volum e2.pdf](https://www.greateratlantic.fisheries.noaa.gov/public/nema/PRD/DEIS_RIR_ALWTRP_RiskReductionRule_Volum e2.pdf).

<sup>101</sup> NOAA Fisheries, *Young Right Whale Likely Died from Entanglement* | NOAA Fisheries. Available: [/feature-story/young-right-whale-likely-died-entanglement](https://www.fisheries.noaa.gov/feature-story/young-right-whale-likely-died-entanglement). Accessed July 31, 2019.; Rachel M. Cassoff et al., *Lethal Entanglement in Baleen Whales*, *96 Diseases of Aquatic Organisms* 175 (2011).

<sup>102</sup> Cassoff, *supra* note 101.

## DISCUSSION

### **I. The Draft BiOp and Incidental Take Statement Fail to Prevent the Further Decline of the North Atlantic Right Whale**

The Draft BiOp and Incidental Take Statement (ITS) rely heavily on the proposed Risk Reduction Rule and a series of future Fisheries Service actions over the next 10 years related to other fisheries to achieve the goal of preventing further decline of the NARW population.<sup>103</sup> With only 360 individuals remaining, the species does not have 10 years to wait; viable and effective measures must be put in place immediately as required under the MMPA and ESA.<sup>104</sup>

Since the proposed Risk Reduction Rule is utterly inadequate for the task at hand<sup>105</sup> (and may not even be the final suite of risk reduction measures chosen), the Draft BiOp and ITS also fail to meet the requirements of the ESA and MMPA. The MMPA and ESA are intended to work in tandem to protect endangered marine mammals. Congress intended that the decision processes under the two statutes “be coordinated to the maximum extent possible,”<sup>106</sup> and manifested that intention by incorporating the MMPA into the ESA’s incidental take statement requirement.<sup>107</sup> But the Draft BiOp and the proposed Risk Reduction Rule appear to be misaligned in ways that will have serious consequences for the species.

#### **a. The Fisheries Service Must Ensure That Authorization of the Fisheries in Federal Waters Does Not “Jeopardize” the Continued Existence of North Atlantic Right Whales or Result in the Destruction or Adverse Modification of Critical Habitat**

The Endangered Species Act and its implementing regulations require that a BiOp include the Fisheries Service’s opinion of whether the authorization of fisheries is “likely to jeopardize the continued existence of [a] listed species or result in the destruction or adverse modification of critical habitat.”<sup>108</sup> The Draft BiOp includes a jeopardy assessment that concludes that the species will continue to decline for the next ten years and likely beyond, but not at a rate higher than it would in the absence of federal fisheries.<sup>109</sup> But the proposed Risk Reduction Rule, the Draft BiOp, and the ITS will enable the authorization of federal and state fisheries that together put over 900,000 vertical lines in the water each year in places where the

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<sup>103</sup> Draft BiOp at 24, Table 2 – Actions to be taken under the Framework.

<sup>104</sup> See, e.g., 16 U.S.C. §§ 1387(g), 1533(b)(7).

<sup>105</sup> See Oceana’s Comment Letter on Proposed Risk Reduction Rule and Draft Environmental Impact Statement (to be filed on March 1, 2021).

<sup>106</sup> See 132 Cong. Rec. H10453-02, 132 Cong. Rec. H10453-02 (1986) (stating the 1986 amendments to the ESA “reflect the changes to the MMPA and ... clarify the relationship between the two statutes. It is intended that the decision processes under the involved statutes be coordinated and integrated to the maximum extent practicable.”).

<sup>107</sup> 16 U.S.C. § 1536(b)(4).

<sup>108</sup> 50 C.F.R. § 402.14(h); see also 16 U.S.C. § 1536(a)(2).

<sup>109</sup> Draft BiOp at 329-343.

whales are known to frequent.<sup>110</sup> Since the Draft BiOp relies heavily on the measures in the proposed Risk Reduction Rule to reduce risks to NARWs, and that rule, as proposed, will not adequately reduce the number vertical lines used in the lobster and crab fisheries to protect NARWs, the authorization of those fisheries is certain to jeopardize the continued existence of NARWs.

The Fisheries Service also fails to properly evaluate the impacts on NARW critical habitat of authorizing the lobster and crab fisheries, as the ESA requires.<sup>111</sup> The Fisheries Service's analysis of such impacts is focused on fishery gear impacts on copepods (food source for NARWs) as well as physical impacts of the gear to the sea bottom.<sup>112</sup> But the analysis appears to dismiss the impacts to NARWs of having hundreds of thousands of vertical lines in the water in places where whales congregate. The Draft BiOp states:

Fixed fishing gear also does not block the entire water column or form a wall preventing access. Vertical buoy lines supporting the fixed gear may extend throughout the water column, however, the Gulf of Maine critical habitat feeding area is vast and not constricted by geological or physical barriers, *therefore whales are free to move through and around these gears to reach their feeding resources*. The impact of entanglements on individual animals as they access their feeding resources is addressed in section 7.2 of this analysis, but is not considered an impact to whales accessing or moving within critical habitat.<sup>113</sup>

Given that entanglement in fishing gear is one of the main causes of mortality to right whales, and the reason why the Fisheries Service has been required to take action under the MMPA and ESA, the statement that “whales are free to move through and around these gears” is confounding. If the whales could easily move around the gear, there would be no need for the Draft BiOp or the proposed Risk Reduction Rule. The jungle of vertical lines in the water have a major impact on the NARW's critical habitat, and the Fisheries Service ignores the requirements of the ESA when it concludes that those lines do not adversely impact such habitat.

Furthermore, because the Fisheries Service wrongly concluded that there will be no jeopardy to North Atlantic right whales or adverse modification of critical habitat, it did not propose Reasonable and Prudent Alternatives (RPAs) to avoid such jeopardy or adverse modification, as required by the ESA. The final BiOp should include such RPAs.

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<sup>110</sup> NOAA Fisheries, *Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending The Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule – Vol. II*, Appendix 5.1, Exhibit 8 (Dec. 30, 2020).

<sup>111</sup> 16 U.S.C. § 1536(b)(3)(A).

<sup>112</sup> Draft BiOp at 83-88.

<sup>113</sup> *Id.* at 87 (italics added).

**b. By Its Own Terms, the NARW Conservation Framework Established in the Draft BiOp Will Not Meet the Goal of Reducing Take to Acceptable Levels for 10 Years – Until 2030**

In the Draft BiOp, the Fisheries Service establishes a novel policy scheduling tool, the NARW Conservation Framework for Federal Fisheries in the Greater Atlantic Region (NARW Conservation Framework), which is apparently intended to meet the MMPA and ESA goals of restoring the stock of NARWs to sustainable levels.<sup>114</sup> However, the NARW Conservation Framework appears to be at odds with the MMPA goal, as expressed in the proposed Risk Reduction Rule, of achieving a PBR for NARWs of 0.9 in the near term. The ITS that accompanies the Draft BiOp sets a level of acceptable, annual lethal take of NARWs of zero. The Draft BiOp states that, after the implementation of the measures in the proposed Risk Reduction Rule, mortality and serious injury (M/SI), which is the equivalent of lethal take, will be 2.2 for federal waters overall in 2021 (2.08 in the lobster and Jonah crab fisheries and .125 in gillnet fisheries).<sup>115</sup> It appears, then, that the Draft BiOp itself contemplates that on Day One, the lobster and Jonah crab fisheries will exceed their authorized ESA lethal take by 2.08, and the MMPA PBR by 1.9. This approach is inconsistent with the requirements in both the ESA and the MMPA.

In addition to relying on the deficient, proposed Risk Reduction Rule, the NARW Conservation Framework relies on future rulemakings (tentatively scheduled to take place in 2023, 2025, and 2030) to reduce risks to NARWs in federal and state fixed gear fisheries, as well as a review of new data and an assessment of measures taken by Canada to reduce risks to North Atlantic right whales as well as other measures. If all of these pieces come together, in a best case scenario, the NARW Conservation Framework anticipates that M/SI will be reduced to 0.85 (similar to the PBR of 0.9 under the proposed Risk Reduction Rule) *by 2025*.<sup>116</sup> Nevermind the fact that the PBR of 0.9 is already out-of-date and should likely be, even as of now, on the order of 0.7; moreover, PBR is likely to continue to decrease if adequate and effective measures are not put in place *now* to reduce the risk of fishing entanglement to NARWs. The Framework contemplates further evaluation and fisheries regulations between 2025 and 2030 to further reduce M/SI.<sup>117</sup> So, it appears that through the NARW Conservation Framework, the Fisheries Service's "proposed action" is a 10-year endeavor that takes an extremely relaxed approach to protecting a species that is in urgent need of immediate, forceful measures to prevent further decline. The NARW Conservation Framework should be revised to reflect a more urgent approach to saving the species, and to align with the ESA goal of zero lethal takes and the MMPA goal of achieving a PBR of 0.9 in the near term.

In short, the NARW Conservation Framework lays bare the fact that the agency is not taking risk reduction measures that will come anywhere near meeting the statutory requirements

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<sup>114</sup> Draft BiOp at 23.

<sup>115</sup> *Id.* at 24 (Table 2), 229-230 (Table 59), 328 (Table 79).

<sup>116</sup> Draft BiOp at 24 (Table 2).

<sup>117</sup> *Id.*

of the ESA and the MMPA. The focus of the Draft BiOp with respect to the lobster and Jonah crab fisheries should be on analyzing authorization of those fisheries under the proposed Risk Reduction Rule. By bringing in so many agency actions (e.g., “batched” fisheries; essential fish habitat amendment) as well as a novel scheduling tool, the NARW Conservation Framework, into the ESA Section 7 analysis, the agency is losing sight of its purpose and, in doing so, utterly failing to adequately address the extinction crisis at hand.

**c. The Incidental Take Statement Issued With the BiOp Authorizes an Alarming Number of Sub-Lethal Takes, Which Will Significantly Impair the Recovery of the Species**

To meet the ESA’s requirement and its court-ordered obligations, the Fisheries Service issued an ITS establishing the levels of lethal and non-lethal take of NARWs.<sup>118</sup> With regard to lethal take, as noted above, the level was set as zero, although the Fisheries Service notes that it may amend that level following the issuance of incidental take authorizations under Section 101(a)(5)(E) of the MMPA. With regard to non-lethal take, however, the Fisheries Service proposes to allow average annual take over a five year period of 11.04% of the species, which amounts to approximately *40 takes per year* assuming a stock of approximately 360 whales. As the Draft BiOp itself notes, sub-lethal takes can have serious consequences:

It is important to note that whales may not die immediately from a vessel strike or entanglement from fishing gear but may gradually weaken or otherwise be affected so that further injury or death is likely (Hayes et al. 2018a). The sublethal stress of entanglements can have a serious impact on individual health and reproductive rates (Lysiak et al. 2018, Pettis et al. 2017, Robbins et al. 2015).<sup>119</sup>

By way of example, the Draft BiOp mentions but does not even attempt to analyze the impacts of weak rope, which plays a key role in the agency’s preferred suite of proposed risk reduction measures.<sup>120</sup> Heavy reliance on weak rope, which is designed to break under the 1,700 pound force of an adult NARW *but not for juveniles and calves*, seems foolhardy at best in light of the limited testing that has been done to date. It is entirely plausible and even predictable that both lethal and sub-lethal takes are likely to occur due to weak rope. The failure of the Draft BiOp to assess takes due to weak rope or to propose a viable way to monitor and account for these takes is a clear abrogation of ESA requirements. Moreover, it begs the question of how the agency will monitor these “takes” that by design are likely not observable by sight but still must be accounted for as part of the triggering mechanism for ESA Section 7 consultations to reduce impacts of the lobster and crab fisheries on the species.

The Draft BiOp also notes that “[d]uring the first 10 years of the proposed action, the operation of the federal fisheries is likely to contribute to decreased calving rates due to the

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<sup>118</sup> *Id.* at 390; *see also id.* at 392 (Table 81).

<sup>119</sup> *Id.* at 146.

<sup>120</sup> Draft BiOp at 25-26.

sublethal effects.”<sup>121</sup> A further reduction in calving can have serious impacts on an endangered species that is already facing reduced calving rates; a population cannot recover if the number of births do not outweigh the number of deaths. Given the direct causal nexus between sub-lethal take and whale mortality and reduced fecundity, it is astonishing that the Fisheries Service sees fit to authorize such a high level of sub-lethal take. Based on the Fisheries Service's own scientific sources, it is safe to assume that some percentage of sub-lethal take results in death, so to authorize 40 such takes per year is likely the equivalent of authorizing at least several lethal takes. In fact, as a recent study shows, between 1990-2017, fishing gear entanglement accounted for the vast majority of serious injuries (87%) to NARWs, but only 49% of mortality in examined NARW carcasses. Thus, there is a pattern of entangled NARWs being more likely to die without ever having a body recovered.<sup>122</sup> Here again, the Fisheries Service is violating its obligations under the ESA and MMPA to protect NARWs by turning a blind eye to the very real risks to NARWs posed by sub-lethal takes due to entanglement in fishing gear.

**d. The Reasonable and Prudent Measures and Terms & Conditions Proposed in the BiOp Will Do Little to Prevent the Further Decline of NARWs**

Reasonable and prudent measures (RPMs) and the related terms and conditions (T&Cs) are supposed to reduce the impact of incidental take; however, the RPMs and T&Cs offered up by the Fisheries Service in the Draft BiOp are utterly insufficient. Even worse, the RPMs and T&Cs seem to reflect the Fisheries Service's admission that the measures it has proposed to reduce entanglement risk are highly unlikely to achieve the stated goals, as required under the ESA and the MMPA. The RPMs proposed in the Draft BiOp to minimize impacts on large whales and other species are a grab bag of vague measures that will do little to prevent the further decline of NARWs. These measures, discussed below, appear to be geared more toward preserving the status quo and conserving agency resources than protecting endangered species.

**1. Gear Research (RPM 1)**

RPM 1 involves the development of a “Roapmap to Ropeless Fishing” within a year of the final BiOp; this RPM is nothing more than a planning exercise. This agency action does nothing to address the immediate need to protect endangered species, including NARWs, as required by the ESA and MMPA.

The Fisheries Service's offer of continued support for whale scarring research to estimate the number and severity of entanglements is a brazen admission by the Fisheries Service that the measures in the proposed Risk Reduction Rule and the related NARW Conservation Framework are wholly inadequate. The Fisheries Service must not violate the ESA and MMPA by permitting life-threatening takes from entanglements in fishing gear to continue, while sitting back and promising to document the steady decline of the species.

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<sup>121</sup> *Id.* at 338.

<sup>122</sup> Richard Pace et al., *Cryptic mortality of North Atlantic right whales*, Conservation Science and Practice Vol. 3, Issue 2 (Feb. 2, 2021), <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.346>



## 2. Ecological Studies (RPM 2)

In RPM 2, the Fisheries Service is merely promising to conduct additional review rather than to require immediate action that will effectively reduce “take.” While continuing to review the best available scientific data is not only important but required under the law,<sup>123</sup> the Fisheries Service already has sufficient information to understand the threat that fishing gear entanglement poses to endangered species such as NARWs and must act on that information to protect the species immediately.

## 3. Handling (RPM 3)

RPM 3 involves *ex post facto* instructions for what to do once a NARW or other endangered species is bycaught or entangled in fishing gear. This RPM is yet another unabashed admission of the Fisheries Service’s failure to propose measures that will *prevent* entanglement from occurring in the first place.

## 4. Monitoring 1 (RPM 4)

Monitoring and the issuance of an annual report of takes must clearly continue, but RPM 4 does nothing in the immediate term to minimize impacts of entanglements.

## 5. Monitoring 2 (RPM 5)

As to RPM 5, here again, continuing to monitor post-interaction mortality does nothing in the immediate term to minimize the impacts of entanglements.

In essence, the RPMs and T&Cs instruct commercial fisheries to continue what they have been doing and hope for a more favorable outcome. If the final BiOp is revised to find jeopardy and include RPAs, then, at a minimum, it should include more forceful, well-defined and actionable RPMs that will fulfill the ESA and MMPA requirements of minimizing the incidental take of right whales.

### **e. The ESA Section 7 Consultation Process Must be Reinitiated if the Take Monitoring Detailed in the BiOp Reveals that Authorized Take Levels Are Being Exceeded**

The Draft BiOp details the ongoing monitoring that the Fisheries Service will undertake to determine the levels of entanglement of large whales in fishing gear authorized by the

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<sup>123</sup> 16 U.S.C. § 1536(a)(2).

agency.<sup>124</sup> Reinitiation of the ESA Section 7 consultation process, and a new BiOp and ITS are required if such monitoring indicates that the authorized level of takes of NARWs is being exceeded.<sup>125</sup> Given the significant time and resources that the Fisheries Service and the various stakeholders have invested in the current ESA Section 7 process and the development of the proposed Risk Reduction Rule, Oceana urges the Fisheries Service to take much stronger, more protective emergency measures to protect NARWs now, and avoid the near certain result of having to reinitiate ESA Section 7 consultation in the near future when the next NARW is lost. With lethal takes set at zero (as they should be for NARWs) but not backed up by adequate and effective risk reduction measures, the Fisheries Service is guaranteed to find itself in a never-ending cycle of reinitiation of ESA Section 7 consultation that will only serve to further delay the immediate, emergency response required to save the NARW from further decline into functional extinction.

**f. The Draft BiOp Must Be Based on the “Best Scientific and Commercial Data Available”**

The Fisheries Service is required to use “the best scientific and commercial data available” in analyzing impacts and formulating the BiOp.<sup>126</sup> For example, a BiOp must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>127</sup> The models used to support the Draft BiOp, including the predictive modeling of the NARW population,<sup>128</sup> do not adequately address significant uncertainties, require clarifications to be fully understood, and overall require strengthening of analyses.<sup>129</sup> As one peer reviewer aptly noted, “the conclusions and interpretations could be much better supported than they currently stand”; model validation and testing “are required in order for the scientific conclusions and interpretations included in the report to be compelling and useful in the context of informing the Section 7 formal consultation.”<sup>130</sup> In a recent panel discussion evaluating the models underlying the proposed Risk Reduction Rule and the Draft BiOp, a team of experts from the Atlantic Scientific Review Group opined that “(g)iven uncertainties in model/data implementation, the agency is likely overestimating the ability of the [NARW] stock to recover. Models at the moment may not be sufficiently precautionary.”<sup>131</sup> Oceana will be submitting an expert opinion with its comment letter on the proposed Risk Reduction Rule and the Draft Environmental Impact Statement on March 1, 2021, which maintains that these models are not sufficiently precautionary and do not

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<sup>124</sup> Draft BiOp at 398.

<sup>125</sup> 50 C.F.R. § 402.16.

<sup>126</sup> 50 C.F.R. § 402.14(g)(8).

<sup>127</sup> 50 C.F.R. § 402.14(g)(8), (h)(2).

<sup>128</sup> Daniel W. Linden (NOAA/NMFS/GARFO), Population projections of North Atlantic right whales under varying human-caused mortality risk and future uncertainty (Jan. 6, 2021)

<sup>129</sup> See, e.g., Wayne Getz, Independent Peer Review of NMFS Study and Report on Predictive Modeling of North Atlantic Right Whale Population (May 2020).

<sup>130</sup> New Peer Review for “Predictive Modeling of North Atlantic Right Whale Population” (May 2020).

<sup>131</sup> ASRG Meeting Summary Notes, (Feb. 12, 2021).

incorporate the best scientific and commercial data available.<sup>132</sup> Oceana urges the agency to review this expert opinion for purposes of the BiOp as well.

**g. The Draft BiOp Must Include Consideration of Cumulative Effects of All Human Activities**

As the Draft BiOp and proposed Risk Reduction Rule make clear, NARWs are subject to a variety of hazards from human activity in the United States and elsewhere, with gear entanglement and vessel strikes being the most serious. But the Draft BiOp barely accounts for other activities when determining an acceptable level of take of NARWs, and instead acknowledges their existence and proceeds to allow a level of take that will ensure the continued decline of the species. For example, the Draft BiOp appears to put a significant burden on Canada to reduce risks to whales, such that if Canada does not enact significant measures equivalent to the U.S. measures laid out in the agency's novel policy scheduling tool, the NARW Conservation Framework proposed in the Draft BiOp, the species will continue to its inexorable decline.<sup>133</sup> The Draft BiOp states that "[t]he cumulative effect of other stressors, including Canadian fisheries and U.S. and Canadian vessel strikes must be removed or abated or this species will reach a tipping point where recovery is no longer possible."<sup>134</sup> Rather than hope for bold action by others to prevent the extinction of the species, the Fisheries Service should assume that other measures to protect NARWs will be limited, and take bold measures itself to immediately reduce take levels.

**CONCLUSION**

In light of Oceana's interests in protecting NARWs from entanglement in fishing gear, Oceana appreciates the opportunity to provide comments on the Draft BiOp. Oceana believes that the Draft BiOp fails to meet the requirements of the ESA as well as the MMPA. Specifically, the Draft BiOp fails to adequately evaluate the impacts of the authorized fisheries on endangered and depleted NARWs and fails to provide Reasonably Prudent Measures that will prevent the further decline of the species. The Draft BiOp is also misaligned with the Fisheries Service's proposed Risk Reduction Rule, and thus fails to satisfy the Fisheries Service's obligation to align its rulemakings under the ESA with the requirements of the MMPA.

In order to correct the inadequacies of the Draft BiOp, Oceana urges the Fisheries Service to take the following actions:

- specify measures that will adequately and effectively reduce risks to NARWs *now* (not 10 years from now as proposed in the NARW Conservation Framework) to prevent the further decline of the species;

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<sup>132</sup> See Expert Opinion filed with Oceana's Comment Letter on the Proposed Risk Reduction Rule and the Draft Environmental Impact Statement (Mar. 1, 2021) (available upon request)

<sup>133</sup> Draft BiOp at 341.

<sup>134</sup> *Id.* at 342.

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 24 of 24

- account for the notable impact on critical NARWs habitat caused by the presence of hundreds of thousands of vertical trap/pot lines;
- use “the best scientific and commercial data available” to conduct analysis of impacts to NARWs;
- reduce the number of sub-lethal NARW takes authorized in the fishery; and
- account for the cumulative effects on NARWs of vessel strikes and other human activities, including impacts in Canadian waters.

AND, in the interim . . .

- take emergency measures immediately using authority under the ESA, MMPA, and the MSA to significantly reduce the impact of fishing gear entanglement on NARWs (e.g., dynamic management areas).

We appreciate the opportunity to provide input and thank you for your time. We will continue to be engaged in this process moving forward.

Sincerely,



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Whitney Webber  
Campaign Director, Responsible Fishing  
Oceana

cc:

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Chief of Staff

National Oceanic and Atmospheric Administration

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February 19, 2021

**John Rousakis**  
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Dear Jennifer Anderson and Sarah Bland:

Our firm represents Oceana, Inc. in connection with its efforts to protect North Atlantic right whales. On behalf of Oceana, Inc., we submit the enclosed comments on the Draft Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council's Omnibus Essential Fish Habitat Amendment 2 [Consultation No. GARFO-2017-00031].

Sincerely,

*/s/ John Rousakis*

John Rousakis

February 19, 2021

Via email: [nmfs.gar.fisheriesbiopfeedback@noaa.gov](mailto:nmfs.gar.fisheriesbiopfeedback@noaa.gov)

Attention:

Jennifer Anderson, Assistant Regional Administrator for Protected Resources

Email: [jennifer.anderson@noaa.gov](mailto:jennifer.anderson@noaa.gov)

Phone: 978-281-9226

Sarah Bland, Assistant Regional Administrator for Sustainable Fisheries

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National Marine Fisheries Service

Greater Atlantic Regional Fisheries Office

55 Great Republic Drive

Gloucester, MA 01930

Phone: 978-281-9300

**Re: Oceana's Comments on the Draft Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council's Omnibus Essential Fish Habitat Amendment 2 [Consultation No. GARFO-2017-00031]**

Dear Jennifer Anderson and Sarah Bland:

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the U.S. Atlantic seaboard. Oceana has been engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species for more than 15 years, with a particular interest in effective bycatch minimization and reducing, if not eliminating, fishing gear entanglement-related death, injury, and harm to protected species, including the critically endangered North Atlantic right whale (NARW).

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 2 of 24

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>1</sup> The two main human-caused threats to NARWS – vessel strikes and fishing entanglement – are the main source of the decline, and possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related whale behavior changes.<sup>2</sup> In 2017, due to new information on the decline of the NARW as well as the exceedance of incidental take of this protected species, the Fisheries Service reinitiated Endangered Species Act (ESA) Section 7 formal consultations for the lobster fishery and the “batched” fisheries.<sup>3</sup> Recognizing the high degree of overlap between the Jonah crab fishery and the lobster fishery, the Fisheries Service included the Jonah crab fishery in the consultation as well.<sup>4</sup> In addition, the agency included consultations on a New England Fishery Management Council essential fish habitat amendment.<sup>5</sup> On January 15, 2021, the Fisheries Service issued the Draft Biological Opinion (Draft BiOp) addressing the impacts of the fisheries and the essential fish habitat amendment on ESA-listed species for public review and comment.

In light of Oceana's interest in protecting NARWs from entanglement in fishing gear, Oceana appreciates the opportunity to provide comments on the Draft BiOp. Oceana believes that the Draft BiOp fails to meet the requirements of the Endangered Species Act (ESA) as well as the Marine Mammal Protection Act (MMPA). Specifically, the Draft BiOp fails to adequately evaluate the impacts of the authorized fisheries on endangered and depleted NARWs and fails to provide a conservation framework or Reasonably Prudent Measures that will prevent the further decline of the species. The Draft BiOp is also misaligned with the Fisheries Service's recently published North Atlantic Right Whale Proposed Risk Reduction Rule for Fishing Entanglement in Fixed Fishing Gear in the Waters of the U.S. Northeast (proposed Risk Reduction Rule), and thus fails to satisfy the Fisheries Service's obligation to align its rulemakings under the ESA with the requirements of the MMPA.

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<sup>1</sup> *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, NOAA Fisheries (last updated May 10, 2019), <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures>.

<sup>2</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (Sept. 18, 2018) at 7, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw\\_brief\\_for\\_alwtrt\\_09\\_18\\_18.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw_brief_for_alwtrt_09_18_18.pdf).

<sup>3</sup> Draft BiOp at 19-21 (The “batched fisheries” refers to the bluefish, Atlantic mackerel/squid/butterfish, monkfish, Northeast multispecies, Northeast skate complex, spiny dogfish, and summer flounder/scup/black seabass fisheries); see also Michael J. Asaro, *Update on NOAA Fisheries Right Whale Recovery Actions*, NOAA Fisheries (November 30, 2017) at 6, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro\\_trtwebinar\\_nov2017.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro_trtwebinar_nov2017.pdf).

<sup>4</sup> Draft BiOp at 21.

<sup>5</sup> The Fisheries Service must comprehensively analyze impacts to ESA-listed species from implementation of the essential fish habitat amendment, which implicates the following New England fisheries: Atlantic deep sea red crab, Atlantic herring, Atlantic salmon, Atlantic sea scallop, monkfish, Northeast multispecies, and skate. *Id.* at 22.

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 3 of 24

In order to correct the inadequacies of the Draft BiOp, Oceana urges the Fisheries Service to take the following actions:

- specify measures that will adequately and effectively reduce risks to NARWs *now* (not 10 years from now as proposed in the NARW Conservation Framework) to prevent the further decline of the species;
- account for the notable impact on critical NARWs habitat caused by the presence of hundreds of thousands of vertical trap/pot lines;
- use “the best scientific and commercial data available” to conduct analysis of impacts to NARWs;
- reduce the number of sub-lethal NARW takes authorized in the fishery; and
- account for the cumulative effects on NARWs of vessel strikes and other human activities, including impacts in Canadian waters.

AND, in the interim . . .

- take emergency measures immediately using authority under the ESA, MMPA, and the Magnuson-Stevens Fisheries Conservation and Management Act (MSA) to significantly reduce the impact of fishing gear entanglement on NARWs (e.g., dynamic management areas).

### LEGAL BACKGROUND

Formal intra-Fisheries Service consultations between the Protected Resources and the Sustainable Fisheries divisions of the Greater Atlantic Regional Fisheries Office to authorize the lobster, Jonah crab, and “batched” fisheries and to implement the essential fish habitat amendment must be conducted in accordance with the requirements of the ESA and the MMPA. The agency must also manage and authorize the fisheries and any essential fish habitat in accordance with the MSA and the Atlantic Coastal Fisheries Cooperative Management Act (ACA). A failure to abide by statutory requirements will lead to legal challenges to the final BiOp.



## I. ENDANGERED SPECIES ACT

### a. Goals of the Statute

The ESA was enacted in 1973 to “halt and reverse the trend toward species extinction, whatever the cost.”<sup>6</sup> The statute declares it “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of [this] purpose.”<sup>7</sup> To meet this goal, Section 9 of the ESA prohibits the “take” of all endangered species, including NARWs, unless specifically authorized.<sup>8</sup> “Take” is defined under the ESA as “to harass, harm, pursue, hunt, shot, wound, kill, trap, capture or collect” a protected species.<sup>9</sup> Exceptions to the ESA prohibition on “take” are only allowed if statutory requirements are met, including via the Section 7 consultations process.

### b. ESA Section 7 Consultation

Section 7 of the ESA requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency, including the authorization of fisheries, is not likely to jeopardize the continued existence of ESA-listed species or destroy or adversely modify critical habitat.<sup>10</sup> ESA Section 7 consultation ends in the publication of a Biological Opinion (BiOp) that not only includes a determination of whether the activity will jeopardize the continued existence of the species but also identifies measures to mitigate the effects of the activity on the species.<sup>11</sup>

The Fisheries Service is required to use “the best scientific and commercial data available” in analyzing impacts and formulating the BiOp.<sup>12</sup> For example, a BiOp must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>13</sup>

“Jeopardize” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”<sup>14</sup>

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<sup>6</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>7</sup> 16 U.S.C. § 1531(c)(1).

<sup>8</sup> 16 U.S.C. § 1538(a)(1)(B).

<sup>9</sup> 16 U.S.C. § 1532(19).

<sup>10</sup> 16 U.S.C. § 1536(a)(2).

<sup>11</sup> *Id.* § 1536(c).

<sup>12</sup> 50 C.F.R. § 402.14(g)(8).

<sup>13</sup> 50 C.F.R. § 402.14(g)(8), (h)(2).

<sup>14</sup> 50 C.F.R. § 402.02; *see also Defenders of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1101 (E.D. Wash. 2006).

When developing its jeopardy determination, “the consulting agency evaluates the current status of the listed species or critical habitat, the effects of the action, and cumulative effects.”<sup>15</sup> If an agency action related to a fishery is expected to jeopardize the species, the BiOp will include non-discretionary Reasonable and Prudent Alternatives and a list of Terms and Conditions for the fishery.<sup>16</sup> If the agency action related to a fishery is determined not to jeopardize the species, the BiOp will include more flexible Reasonable and Prudent Measures and a list of Terms and Conditions for the fishery.<sup>17</sup>

Importantly, the BiOp must also include an Incidental Take Statement (ITS) that authorizes and specifies the level of acceptable take for the fishery that will not trigger future consultation.<sup>18</sup> The ITS has two purposes. First, it provides a safe harbor for a specified level of incidental take.<sup>19</sup> A fishery authorized subject to an ITS may incidentally (but not intentionally) take endangered species, which is otherwise illegal.<sup>20</sup> If the fishery exceeds the take specified in the ITS, however, the safe harbor no longer applies, and the fishery and its participants are liable for violating the ESA.<sup>21</sup> Any person who knowingly “takes,” that is, causes lethal or sub-lethal harm to, an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment (civil fines of up to \$25,000 per violation and criminal penalties of up to \$50,000 and imprisonment for up to a year).<sup>22</sup> Second, the ITS provides a trigger.<sup>23</sup> The BiOp and ITS include a requirement that the Fisheries Service must effectively monitor takes in a fishery against the trigger specified in the ITS.<sup>24</sup> If the authorized fishery exceeds the trigger, i.e., the level of “take” specified in the ITS, the Fisheries Service must immediately reinstate ESA Section 7 consultation to reevaluate impacts of the fishery to ESA-listed species.<sup>25</sup> For ESA-listed marine mammals, the ITS must include a discussion of measures necessary to comply with the MMPA, which, as discussed below, imposes additional conditions on the Fisheries Service’s ability to authorize the take of endangered marine mammals.

### **c. Emergency Action under the ESA**

The Fisheries Service has authority under the ESA to take emergency action when there is an “emergency posing a significant risk to the well-being of any species of fish or wildlife or

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<sup>15</sup> *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 481 F.3d 1224, 1230 (9th Cir. 2007) (citing 50 C.F.R. § 402.14(g)(2)–(3)) (internal quotations omitted).

<sup>16</sup> 16 U.S.C. § 1536(b)(3)(A).

<sup>17</sup> *Id.* § 1536(b)(4).

<sup>18</sup> 50 C.F.R. § 402.14(i).

<sup>19</sup> *See Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 909 (9th Cir. 2012).

<sup>20</sup> *Id.*

<sup>21</sup> 16 U.S.C. § 1540(a), (b); *see also Bennett v. Spear*, 520 U.S. 154, 170 (1997).

<sup>22</sup> 16 U.S.C. § 1540(a), (b).

<sup>23</sup> *Ctr. for Biological Diversity*, 695 F.3d at 909.

<sup>24</sup> 50 C.F.R. § 402.14(i).

<sup>25</sup> *Id.*

plants.”<sup>26</sup> When taking such emergency action, the Fisheries Service can bypass standard ESA and Administrative Procedure Act rulemaking procedures to issue emergency regulations to protect a species.<sup>27</sup>

## **II. MARINE MAMMAL PROTECTION ACT**

### **a. Goals of the Statute**

Since 1972, the MMPA has afforded special protection to marine mammal species from a wide range of threats. To protect marine mammals, such as NARWs, from human activities, the MMPA establishes a moratorium on the “take” of marine mammals.<sup>28</sup> The MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>29</sup> In limited circumstances, the Fisheries Service,<sup>30</sup> may grant exceptions to the take moratorium, such as for the incidental, but not intentional, taking of marine mammals for certain activities, which is done via an incidental take authorization.<sup>31</sup>

At the heart of the MMPA’s science-driven approach to conservation, management and recovery of marine mammals are the goals of maintaining the optimum sustainable population and ecosystem function of marine mammal stocks, restoring depleted stocks to their optimum sustainable population levels, and reducing mortality and serious injury (bycatch) of marine mammals incidental to commercial fishing operations to insignificant levels. To achieve these overarching goals, the MMPA prohibits taking of marine mammals, with certain exceptions, including for commercial fisheries.<sup>32</sup> Ultimately, the MMPA mandates a Zero Mortality Rate Goal, i.e., marine mammal mortality in commercial fisheries should achieve a zero mortality and serious injury rate to a level approaching zero, by April 2001.<sup>33</sup> Clearly, the Zero Mortality Rate Goal for marine mammal “take” in commercial fisheries has not been met, indicating the Fisheries Service’s failure to effectively implement and enforce this bedrock environmental law.

The MMPA requires fisheries to achieve an interim goal of Potential Biological Removal (PBR).<sup>34</sup> The PBR is calculated based on the dynamics of a species or mammal stock to be “(t)he

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<sup>26</sup> 16 U.S.C. § 1533(b)(7).

<sup>27</sup> *Id.*

<sup>28</sup> 16 U.S.C. §§ 1361(2), 1371.

<sup>29</sup> 16 U.S.C. § 1362(13).

<sup>30</sup> The Fish and Wildlife Service, within the Department of the Interior, is responsible for dugongs, manatees, polar bears, sea otters and walruses. See U.S. Fish and Wildlife Service, *Marine Mammals*, <https://www.fws.gov/international/animals/marine-mammals.html> (last visited Feb. 18, 2021).

<sup>31</sup> 16 U.S.C. § 1371(a); Fisheries Service, *Incidental Take Authorizations under the MMPA*, <https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act> (last updated June 24, 2020) (listing oil and gas exploration as an activity for which incidental take authorizations have been issued).

<sup>32</sup> 16 U.S.C. § 1371(a), 1371(a)(5)(E).

<sup>33</sup> 16 U.S.C. § 1387(b).

<sup>34</sup> *Id.* § 1387(f).

maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.”<sup>35</sup> This requirement is the guiding metric of success for recovering marine mammal species and for incidental fishing mortality reductions. Any “take” over PBR is unauthorized. When “take” exceeds PBR, a Take Reduction Plan (TRP) (discussed below) must be developed. In addition, if a commercial fisher has not registered their vessel and received an incidental take authorization (discussed below), then any “take” of a marine mammal species is subject to substantial civil fine and a knowing violation is subject criminal penalties, including imprisonment (civil fines of up to \$10,000 per violation and criminal penalties of up to \$20,000 per violation and imprisonment for up to a year).<sup>36</sup>

In the 2018 Stock Assessment Report for NARWs, PBR was calculated to be 0.9 mortalities or incidents of serious injury per year.<sup>37</sup> The 2019 Stock Assessment Report for NARWs calculates PBR at 0.8.<sup>38</sup> The draft 2020 Stock Assessment Report similarly calculates PBR at 0.8.<sup>39</sup> However, as the Fisheries Service has recently acknowledged, the population of NARWs must be revised downward – from 412 to 366 as of January 2019 – in part because “the impact of the ongoing Unusual Mortality Event (UME) – declared in 2017 and involving 42 individuals [as of October 2020] – was worse than previously thought”; as a result, PBR will likely be even lower in the 2021 Stock Assessment Report.<sup>40</sup> In other words, *less than one* NARW may be killed or seriously injured by human actions each year for the species to achieve optimum sustainable population.

## **b. Take Reduction Teams/Take Reduction Plans**

To achieve the goals of the MMPA, the Fisheries Service convenes Take Reduction Teams (TRTs) - interdisciplinary groups tasked with the development of Take Reduction Plans (TRPs).<sup>41</sup> TRT members are selected for their expertise regarding the conservation and biology of the marine mammal species or expertise regarding the fishing practices that result in the take of such species. TRTs are assembled to respond to specific needs and reconvene when the conservation needs of an MMPA-protected species necessitate changes to regulations.

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<sup>35</sup> 16 U.S.C § 1362(20).

<sup>36</sup> 16 U.S.C. § 1375(a), (b).

<sup>37</sup> “2018 Marine Mammal Stock Assessment Reports,” 84 Fed. Reg. 28,489, 28,496 (June 19, 2019).

<sup>38</sup> NOAA Fisheries, *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports – 2019, North Atlantic Right Whale* (Apr. 2020) at 6, [https://media.fisheries.noaa.gov/dam-migration/2019\\_sars\\_atlantic\\_northatlanticrightwhale.pdf](https://media.fisheries.noaa.gov/dam-migration/2019_sars_atlantic_northatlanticrightwhale.pdf).

<sup>39</sup> NOAA Fisheries, *DRAFT - U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports – 2020, North Atlantic Right Whale* (Aug. 2020) at 45, <https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-12/Draft%202020%20Atlantic-Gulf-marine%20mammal%20stock%20assessment%20reports.pdf?null>.

<sup>40</sup> Email from Colleen Coogan to ALWTRT Members and Alternates (Oct. 26, 2020).

<sup>41</sup> *Marine Mammal Take Reduction Plans and Teams*, NOAA Fisheries (last updated Aug. 8, 2019), <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams>.

The overarching goal of each TRP is “to reduce, within 5 years of [the plan’s] implementation, the incidental mortality or serious injury of marine mammals...to insignificant levels approaching a zero mortality and serious injury rate, taking into account the economics of the fishery, the availability of existing technology, and existing State or regional fishery management plans.”<sup>42</sup> This so-called Zero Mortality Rate Goal is the ultimate goal of marine mammal conservation in each TRP in the United States, with achievement of PBR acting as an intermediate step towards recovery.<sup>43</sup>

To accomplish this important task, each TRP contains a review of recent stock assessments and estimates of the total number of marine mammals being taken annually by species and by fishery. The TRP then explores recommended regulatory and voluntary measures and the expected percentage of the required bycatch reduction that will be achieved by each measure. The TRP must also include a discussion of alternate management measures considered and reviewed by the TRT and a rationale for their rejection. Finally, a TRP must include monitoring plans to determine the success of each measure and a timeline for achieving specific objectives of the TRP.<sup>44</sup>

The Atlantic Large Whale Take Reduction Team (ALWTRT) has been in effect since 1996.<sup>45</sup> The Atlantic Large Whale Take Reduction Plan (ALWTRP) was first implemented in 1997.<sup>46</sup> The ALWTRT has advised the Fisheries Service on more than a dozen rules and regulations since then to modify fisheries managed under the ALWTRP.<sup>47</sup> Recent amendments to the ALWTRP include the December 31, 2020 proposed Risk Reduction Rule related to two of the fisheries – the lobster and Jonah crab fisheries – analyzed in the Draft BiOp.

### **c. ESA Section 7 Consultation and MMPA Section 101(a)(5) Requirements**

ESA-listed marine mammal stocks fall under the jurisdiction of both the MMPA and ESA, and the Fisheries Service has a concurrent responsibility to satisfy the requirements of both laws. The MMPA and the ESA work in tandem to protect endangered marine mammals. Indeed, Congress “intended that the decision processes under the [MMPA and ESA] be coordinated and integrated to the maximum extent possible.”<sup>48</sup> Congress manifested this intention by incorporating the MMPA into the ESA’s incidental take statement requirement.<sup>49</sup> Specifically,

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<sup>42</sup> 16 U.S.C. § 1387(f)(2).

<sup>43</sup> 16 U.S.C. § 1387(b).

<sup>44</sup> NOAA Fisheries Marine Mammal Take Reduction Plans and Teams Website:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams#take-reduction-plan-content> (last visited Sept. 6, 2019).

<sup>45</sup> *Atlantic Large Whale Take Reduction Plan: The Take Reduction Team*, NOAA Fisheries,

<https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-mammal-protection/atlantic-large-whale-take-reduction-plan> (last visited Aug. 16, 2019).

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> See 132 Cong. Rec. H10453-02, 132 Cong. Rec. H10453-02 (1986) (stating the 1986 amendments to the ESA “reflect the changes to the MMPA and ... clarify the relationship between the two statutes. It is intended that the decision processes under the involved statutes be coordinated and integrated to the maximum extent practicable.”).

<sup>49</sup> 16 U.S.C. § 1536(b)(4)(C).

Section 7(b)(4)(C) of the ESA provides that when the action under consultation will incidentally take endangered marine mammal species, the Service must ensure that the taking “is authorized pursuant to section 101(a)(5) of the Marine Mammal Protection Act.”<sup>50</sup>

As part of the Marine Mammal Authorization Program, the Fisheries Service maintains the MMPA List of Fisheries that interact with marine mammals, which is updated annually. The list includes three categories. Category I lists fisheries that have frequent incidental mortality and serious injury for a marine mammal species (i.e., greater than or equal to 50% of PBR). Category II lists fisheries with occasional incidental mortality and serious injury (i.e., greater than 1% but less than 50% PBR). Category III lists fisheries with a remote likelihood of no know incidental mortality or serious injury (less than or equal to 1% of PBR).<sup>51</sup> Effective as of February 16, 2021, the Fisheries Service’s MMPA List of Fisheries includes both the lobster and Jonah crab fisheries as Category II fisheries that have “occasional interactions” with large whales. While the NARW is listed as a marine mammal with which the lobster fishery interacts, the species is not listed for the Jonah crab fishery.<sup>52</sup> Fisheries listed in Category I or II must apply for and receive a permit from the Fisheries Service, and U.S. flagged fishing vessels must register with the Fisheries Service and display a valid authorization decal.<sup>53</sup>

Authorization of incidental take of *endangered* marine mammals, such as the NARW, for commercial fisheries with frequent (MMPA Category I)<sup>54</sup> or occasional (MMPA Category II)<sup>55</sup> incidental mortality or serious injury requires additional steps.<sup>56</sup> The Fisheries Service must first publish in the Federal Register a separate list of fisheries allowed to engage in such takes (“MMPA 101(a)(5)(E) list”).<sup>57</sup> To add a fishery to the MMPA 101(a)(5)(E) list, the Fisheries Service must make certain determinations. Specifically, for every endangered marine mammal

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<sup>50</sup> *Id.*

<sup>51</sup> 16 U.S.C. § 1387(c).

<sup>52</sup> See NOAA Fisheries, *Marine Mammal Protection – List of Fisheries Summary Tables*, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/list-fisheries-summary-tables> (last updated Feb. 5, 2021).

<sup>53</sup> 16 U.S.C. § 1387(c).

<sup>54</sup> MMPA Category I fisheries are fisheries that have frequent incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>55</sup> MMPA Category II fisheries are fisheries that have occasional incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>56</sup> 16 U.S.C. § 1387(a)(2) (noting that “[i]n the case of the incidental taking of marine mammals from species or stocks designated under this Act as depleted on the basis of their listing as threatened species or endangered species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), both this section and section 1371(a)(5)(E) of this Act shall apply” (emphasis added)).

<sup>57</sup> *Id.* § 1371(a)(5)(E). Please note that this is a different List of Fisheries than the one for non-endangered marine mammals called the “Marine Mammal Authorization Program.” *See* 16 U.S.C. § 1382(a).

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 10 of 24

for which the Fisheries Service plans to issue an incidental take authorization, the Fisheries Service must determine:

- the incidental mortality and serious injury from the fishery will have a “negligible impact” on the species;<sup>58</sup>
- a recovery plan has been developed or is being developed for the species;<sup>59</sup> and
- a monitoring program and a TRP is or will be in place for the species.<sup>60</sup>

After making this determination for every endangered marine mammal that a fishery takes, the Fisheries Service can add the fishery to the MMPA 101(a)(5)(E) list.<sup>61</sup> Only upon the publication of the MMPA 101(a)(5)(E) list are vessels operating in these fisheries eligible to receive incidental take authorizations.<sup>62</sup> These incidental take authorizations are valid for up to three years.<sup>63</sup> Any incidental take of marine mammals by commercial fisheries, therefore, is illegal without the publication of an MMPA 101(a)(5)(E) list and the accompanying determinations described above. The Fisheries Service is delinquent in its duty to publish this MMPA 101(a)(5)(E) list and to issue incidental take authorization as required by the statute.

The publication of the MMPA 101(a)(5)(E) list, however, does not conclude the Fisheries Service's duty. Since the Fisheries Service is authorizing take of *endangered* marine mammals, the ESA also applies. The Fisheries Service must publish a BiOp with an ITS.<sup>64</sup> Moreover, as described above, that ITS must include terms and conditions that detail how the authorized take will comply with the requirements of the MMPA.<sup>65</sup> Thus, for *endangered* marine mammals, the ITS must contain terms and conditions to ensure that any authorized take has only a “negligible impact” on the species.<sup>66</sup>

Even after completing these steps, the Fisheries Service's duty is not discharged. If the Fisheries Service determines that the incidental mortality or serious injury in a fishery has more

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<sup>58</sup> MMPA regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 216.103. For the latest guidance of “negligible impact” determinations in the context of MMPA Section 101(a)(5)(E), see National Marine Fisheries Service, Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E) (June 17, 2020), <https://media.fisheries.noaa.gov/dam-migration/02-204-02.pdf>.

<sup>59</sup> The MMPA does not specify a timeframe for when the recovery plan must be developed. There is also no case law on point for this specific issue.

<sup>60</sup> *Id.* § 1371(a)(5)(E)(i).

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

<sup>63</sup> 61 Fed. Reg. 64,500, 64,500 (Dec 5, 1996).

<sup>64</sup> 16 U.S.C. § 1536(b)(4).

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*; 16 U.S.C § 1371(a)(5).

than a “negligible impact” on an endangered species, then the agency must issue emergency regulations to protect the species.<sup>67</sup>

#### **d. Emergency Action under the MMPA**

If incidental mortality and serious injury during a commercial fishing season is having or is likely to have an immediate and significant adverse impact on a stock or species, and a TRP is being developed, then the Fisheries Service shall prescribe emergency regulations to reduce incidental mortality and serious injury in the fishery and approve and implement on an expedited basis, a plan to address adverse impacts.<sup>68</sup> The MMPA *requires* the Fisheries Service to act to protect an endangered species when the level of incidental mortality or serious injury from an authorized commercial fishery has resulted, or is likely to result in an impact that is “more than negligible.”<sup>69</sup>

### **III. MAGNUSON-STEVENSON ACT**

The Magnuson-Stevens Act of 1976 governs fishery management in U.S. federal waters. In addition to the statutory goals of fostering long-term biological and economical sustainability or marine fisheries, the Act requires the Fisheries Service to consult with relevant staff within the agency regarding any adverse effects authorizing commercial fisheries may have on essential fish habitat.<sup>70</sup> In addition, National Standard 9 of the MSA specifies that conservation and management measures shall, to the extent practicable, (a) minimize bycatch, and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.<sup>71</sup> The MSA also gives the Fisheries Service authority to issue emergency regulations to address “recent, unforeseen events or recently discovered circumstances” that “present serious conservation or management problems in the fishery.”<sup>72</sup>

### **IV. ATLANTIC COASTAL FISHERIES COOPERATIVE MANAGEMENT ACT (ACA)**

To facilitate effective interstate conservation and management of Atlantic coastal fishery resources, Congress authorized, via the ACA in 1993, the Atlantic States Marine Fisheries Commission (Commission), to work with states and the federal government on interstate coastal fishery management.<sup>73</sup> In particular, the Commission is the umbrella organization through which

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<sup>67</sup> 16 U.S.C. § 1371(a)(5)(E)(iii).

<sup>68</sup> 16 U.S.C. § 1387(g).

<sup>69</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii), 1387(g).

<sup>70</sup> 16 U.S.C. § 1855(b)(2) (stating that “[e]ach Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or *proposed to be authorized*, funded, or undertaken by such agency that may adversely affect any essential fish habitat identified under this Act.” (emphasis added)).

<sup>71</sup> 16 U.S.C. § 1851(a)(9).

<sup>72</sup> 16 U.S.C. § 1855(c); 62 Fed. Reg. 44,421-42 (Aug. 21, 1997).

<sup>73</sup> 16 U.S.C. § 5101 *et seq.*



the states and federal government manage, via interstate fishery management plans (ISFMP), the lobster and crab fishery in the U.S. exclusive economic zone.<sup>74</sup> All states must implement required conservation provisions of any ISFMP; if a state or states do not, then the Fisheries Service, acting on delegated authority from the Secretary of Commerce, may impose a moratorium on fishing in the noncompliant state's waters.<sup>75</sup>

## **V. RELATED LITIGATION**

### **a. Center for Biological Diversity v. Ross**

In January 2018, the Center for Biological Diversity, Defenders of Wildlife, and the Humane Society challenged the 2014 American lobster fishery BiOp under the ESA, MMPA, and APA for, among other things, failing to include an ITS in the BiOp in violation of the ESA. Conservation Law Foundation separately challenged on similar grounds, and the case was consolidated before the D.C. District Court. In April 2020, the Court decided to only address the ESA claim and found that the 2014 BiOp was invalid because it failed to include an ITS. At the remedy phase, the Court was not inclined to issue an injunction creating a closed area as requested by plaintiffs but did require the Fisheries Service to issue a new BiOp with an ITS by May 31, 2021.<sup>76</sup> The Draft BiOp, which is the subject of this comment letter, incorporates ESA Section 7 consultation and analysis of the impacts of the American lobster fishery on NARWs along with an ITS in an attempt to satisfy the Court's order.

### **b. Conservation Law Foundation v. Ross**

In May 2018, Conservation Law Foundation challenged the 2018 Omnibus Essential Fish Habitat Amendment 2 to open up the Nantucket Lightship Groundfish Closure Area and the Closed Area 1 Groundfish Closure Area to groundfish fishing gear after over 20 years of being closed. Conservation Law Foundation alleged that the Fisheries Service violated the ESA due to its failure to perform ESA Section 7 consultations for the proposed opening of these closed areas. In October 2019, the D.C. District Court found that the Fisheries Service had made a clear finding in the related 2016 environmental impact statement that the openings "may affect" NARWs; therefore, the agency did not have discretion to avoid ESA Section 7 consultations. In addition, the D.C. District Court issued an injunction preventing gillnet fishing in the two closed areas until the Fisheries Service has complied with the requirements of the ESA and the Magnuson-Stevens Act for Section 7 consultations, which are required for fishery management plan amendments.<sup>77</sup> The Draft BiOp, which is the subject of this comment letter, incorporates ESA Section 7 consultation for the Omnibus Essential Fish Habitat Amendment 2.

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<sup>74</sup> 50 C.F.R. § 697.5.

<sup>75</sup> 16 U.S.C. § 5106.

<sup>76</sup> *Ctr. for Biological Diversity v. Ross*, 2020 U.S. Dist. LEXIS 62550, 50 ELR 20088 (D.D.C. Apr. 2020);

<sup>77</sup> *Conservation Law Found. v. Ross*, 422 F. Supp. 3d 12 (D.D.C. 2019); *see also* 16 U.S.C. § 1854(a)(1)(A).

## FACTUAL BACKGROUND

### I. CHRONOLOGY OF NOTABLE AGENCY ACTIONS TO REDUCE TAKES OF LARGE WHALES IN ATLANTIC FISHERIES

Since its inception in 1996, the ALWTRT has developed a series of regulations to minimize takes of large whales, including NARWs, in U.S. Atlantic fisheries from Florida to the Canadian border.<sup>78</sup> These regulations were then implemented by the Fisheries Service to create, remove, and modify gear restrictions and to impose time-area management strategies to meet the goals and requirements of the MMPA and ESA.

These actions include two 2002 actions to create dynamic area management (DAM) and seasonal area management (SAM) programs,<sup>79</sup> a June 2007 rule to expand the Southeast U.S. Restricted Area and modify regulations for the gillnet fishery,<sup>80</sup> an October 2007 gear modification that eliminated the DAM program, replaced it with gear modifications and expanded SAM areas,<sup>81</sup> and most recently a “trawling up” rule to increase the minimum number of lobster traps that can be fished together on a string or “trawl” of traps in order to reduce the amount of vertical lines in the water.<sup>82</sup>

### II. RESULTS OF PAST EFFORTS AND CURRENT NEED FOR AGENCY ACTION

The ALWTRP significantly changed the management, administration and operations of a range of fisheries in the U.S. Atlantic. These measures had moderate success from the implementation of the ALWTRP in the 1990s through 2010.<sup>83</sup> During this time, large whales, particularly NARWs, experienced moderate recovery from a population size in the mid-200s to more than 480 in 2010.<sup>84</sup>

Since 2010, the recovery of NARWs has reversed and the population has now declined for a variety of reasons.<sup>85</sup> The two main human-caused threats to NARWS – vessel strikes and fishing entanglement – are the main source of the decline, and possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related whale behavior

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<sup>78</sup> ALWTRP Interim Final Rule, 62 Fed. Reg. 39,157 (July 22, 1997). Conservation of minke, humpback, and fin whales is also included in this plan.

<sup>79</sup> DAM Final Rule, 67 Fed. Reg. 1133 (Jan. 9, 2002); SAM Interim Final Rule, 67 Fed. Reg. 1142 (Jan. 9, 2002).

<sup>80</sup> SE Modifications Final Rule, 72 Fed. Reg. 34,632 (June 25, 2007).

<sup>81</sup> Broad-based gear modification final rule, 72 Fed. Reg. 57,104 (Oct. 5, 2007).

<sup>82</sup> Final Rule, 79 Fed. Reg. 36,586 (June 27, 2014).

<sup>83</sup> *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, NOAA Fisheries (last updated May 10, 2019), <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures>.

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

changes.<sup>86</sup> In 2017, responding to an elevated number of observed NARW deaths, the Fisheries Service declared an Unusual Mortality Event (UME) for NARWs which is currently ongoing.<sup>87</sup> A UME is defined under the MMPA as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands *immediate* response.”<sup>88</sup>

### **a. Current Status of the NARW Population**

Once abundant in the oceans with a population range between 9,000 to 21,000 animals,<sup>89</sup> the North Atlantic right whale is currently one of the most endangered large whales on the planet.<sup>90</sup> Today, only around 360 NARWs remain, with fewer than 80 breeding females.<sup>91</sup>

North Atlantic right whales do not reach reproductive maturity until around 10 years of age. They typically only produce one calf after a year-long pregnancy every three to five years.<sup>92</sup> However, the trauma caused by chronic fishing gear entanglements and other stressors has now increased the calving interval to every 10 years.<sup>93</sup> As of February 16, 2021, there have been 15 new calves born for the 2020/2021 breeding season, including five calves from first-time

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<sup>86</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries (Sept. 18, 2018) at 7, [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw\\_brief\\_for\\_alwtrt\\_09\\_18\\_18.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/narw_brief_for_alwtrt_09_18_18.pdf).

<sup>87</sup> *2017-2019 North Atlantic Right Whale Unusual Mortality Event*, NOAA Fisheries, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 5, 2019).

<sup>88</sup> 16 U.S.C. § 1421h(6). The MMPA defines “stranding” as “an event in the wild in which - (A) a marine mammal is dead and is - (i) on the beach or shore of the United States; or (ii) in the waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is - (i) on a beach or shore of the United States and unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.” 16 U.S.C. § 1421h(3).

<sup>89</sup> Monsarrat S, Pennino MG, Smith TD, et al. (2016) A spatially explicit estimate of the prewhaling abundance of the endangered North Atlantic right whale: *Eubalaena glacialis* Historical Abundance. *Conservation Biology* 30: 783–791. doi: 10.1111/cobi.12664 E.H. Buck, *The North Atlantic Right Whale: Federal Management Issues*. Library of Congress: Congressional Research Service. Report No.: RL30907 (Mar. 29, 2001).

<sup>90</sup> NOAA Fisheries, *Species Directory – North Atlantic Right Whale*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Jan. 28, 2021).

<sup>91</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*, [https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwreport_cardfinal.pdf) (last visited Feb. 16, 2021).

<sup>92</sup> Scott D. Kraus, *Reproductive Parameters of the North Atlantic Right Whale*, 2 J. Cetacean Res. Manage. (Special Issue) 23 (2001).

<sup>93</sup> H.M Pettis et al., *North Atlantic Right Whale Consortium 2018 Annual Report Card*, <https://www.narwc.org/report-cards.html>.

moms.<sup>94</sup> However, on February 13, 2021 a months-old calf stranded in Florida after being struck by a vessel, making the total number of surviving calves this year 14.<sup>95</sup>

Since the UME began, a total of 33 dead NARWs have been found (21 in Canada and 12 in the United States). The leading cause of death for the UME is “human interaction,” with the two greatest threats being entanglements in fishing gear and vessel strikes.<sup>96</sup> Additionally, 14 live whales have been documented with serious injuries from entanglements in fishing gear and vessel strikes.<sup>97</sup> Actual whale mortality is likely much higher than these observed numbers, since observed NARW carcasses only accounted for 36% of all estimated deaths between 1990-2017.<sup>98</sup>

According to the Fisheries Service, the lobster and crab fisheries deploy about 93 percent of the fixed fishing gear in the waters of the U.S. Northeast where NARWs often transit and/or aggregate.<sup>99</sup> The fixed fishing gear used by these fisheries generally involves vertical buoy lines that connect down to lobster or crab traps/pots on the ocean floor. With over 900,000 buoy lines deployed annually in these two U.S. fisheries alone, these vertical lines in the water column present a significant threat of entanglement for NARWs.<sup>100</sup>

Fishing gear lines have been seen wrapped around NARWs’ mouths, fins, tails and bodies, which slows them down, making it difficult to swim, reproduce and feed, and can kill them.<sup>101</sup> The lines cut into the whales’ flesh, leading to life-threatening infections, and are so strong that they can sever fins and tails and cut into bone.<sup>102</sup>

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<sup>94</sup> NOAA Fisheries, North Atlantic Right Whale Calving Season 2021, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/north-atlantic-right-whale-calving-season-2021> (last updated Feb. 17, 2021)

<sup>95</sup> NOAA Fisheries, North Atlantic Right Whale Calf Stranded Dead in Florida (Feb. 14, 2021), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida>.

<sup>96</sup> NOAA Fisheries, 2017-2021 North Atlantic Right Whale Unusual Mortality Event, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Jan. 12, 2021).

<sup>97</sup> *Id.*

<sup>98</sup> Kraus SD, Brown MW, Caswell H, Clark CW and others (2005) North Atlantic right whales in crisis. *Science* 309: 561–562; *see also* Richard Pace et al., *Cryptic mortality of North Atlantic right whales*, *Conservation Science and Practice* Vol. 3, Issue 2 (Feb. 2, 2021), <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.346>.

<sup>99</sup> NOAA Fisheries, *Fact Sheet - Proposed “Risk Reduction Rule” to Modify the Atlantic Large Whale Take Reduction Plan* (Dec. 31, 2020), <https://media.fisheries.noaa.gov/2021-01/TRTFactSheetRev011221.pdf?null>.

<sup>100</sup> NOAA Fisheries, *Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending The Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule – Vol. II, Appendix 5.1, Exhibit 8* (Dec. 30, 2020), [https://www.greateratlantic.fisheries.noaa.gov/public/nema/PRD/DEIS\\_RIR\\_ALWTRP\\_RiskReductionRule\\_Volume2.pdf](https://www.greateratlantic.fisheries.noaa.gov/public/nema/PRD/DEIS_RIR_ALWTRP_RiskReductionRule_Volume2.pdf).

<sup>101</sup> NOAA Fisheries, *Young Right Whale Likely Died from Entanglement* | NOAA Fisheries. Available: [/feature-story/young-right-whale-likely-died-entanglement](https://www.fisheries.noaa.gov/feature-story/young-right-whale-likely-died-entanglement). Accessed July 31, 2019.; Rachel M. Cassoff et al., *Lethal Entanglement in Baleen Whales*, *96 Diseases of Aquatic Organisms* 175 (2011).

<sup>102</sup> Cassoff, *supra* note 101.

## DISCUSSION

### **I. The Draft BiOp and Incidental Take Statement Fail to Prevent the Further Decline of the North Atlantic Right Whale**

The Draft BiOp and Incidental Take Statement (ITS) rely heavily on the proposed Risk Reduction Rule and a series of future Fisheries Service actions over the next 10 years related to other fisheries to achieve the goal of preventing further decline of the NARW population.<sup>103</sup> With only 360 individuals remaining, the species does not have 10 years to wait; viable and effective measures must be put in place immediately as required under the MMPA and ESA.<sup>104</sup>

Since the proposed Risk Reduction Rule is utterly inadequate for the task at hand<sup>105</sup> (and may not even be the final suite of risk reduction measures chosen), the Draft BiOp and ITS also fail to meet the requirements of the ESA and MMPA. The MMPA and ESA are intended to work in tandem to protect endangered marine mammals. Congress intended that the decision processes under the two statutes “be coordinated to the maximum extent possible,”<sup>106</sup> and manifested that intention by incorporating the MMPA into the ESA’s incidental take statement requirement.<sup>107</sup> But the Draft BiOp and the proposed Risk Reduction Rule appear to be misaligned in ways that will have serious consequences for the species.

#### **a. The Fisheries Service Must Ensure That Authorization of the Fisheries in Federal Waters Does Not “Jeopardize” the Continued Existence of North Atlantic Right Whales or Result in the Destruction or Adverse Modification of Critical Habitat**

The Endangered Species Act and its implementing regulations require that a BiOp include the Fisheries Service’s opinion of whether the authorization of fisheries is “likely to jeopardize the continued existence of [a] listed species or result in the destruction or adverse modification of critical habitat.”<sup>108</sup> The Draft BiOp includes a jeopardy assessment that concludes that the species will continue to decline for the next ten years and likely beyond, but not at a rate higher than it would in the absence of federal fisheries.<sup>109</sup> But the proposed Risk Reduction Rule, the Draft BiOp, and the ITS will enable the authorization of federal and state fisheries that together put over 900,000 vertical lines in the water each year in places where the

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<sup>103</sup> Draft BiOp at 24, Table 2 – Actions to be taken under the Framework.

<sup>104</sup> See, e.g., 16 U.S.C. §§ 1387(g), 1533(b)(7).

<sup>105</sup> See Oceana’s Comment Letter on Proposed Risk Reduction Rule and Draft Environmental Impact Statement (to be filed on March 1, 2021).

<sup>106</sup> See 132 Cong. Rec. H10453-02, 132 Cong. Rec. H10453-02 (1986) (stating the 1986 amendments to the ESA “reflect the changes to the MMPA and ... clarify the relationship between the two statutes. It is intended that the decision processes under the involved statutes be coordinated and integrated to the maximum extent practicable.”).

<sup>107</sup> 16 U.S.C. § 1536(b)(4).

<sup>108</sup> 50 C.F.R. § 402.14(h); see also 16 U.S.C. § 1536(a)(2).

<sup>109</sup> Draft BiOp at 329-343.

whales are known to frequent.<sup>110</sup> Since the Draft BiOp relies heavily on the measures in the proposed Risk Reduction Rule to reduce risks to NARWs, and that rule, as proposed, will not adequately reduce the number vertical lines used in the lobster and crab fisheries to protect NARWs, the authorization of those fisheries is certain to jeopardize the continued existence of NARWs.

The Fisheries Service also fails to properly evaluate the impacts on NARW critical habitat of authorizing the lobster and crab fisheries, as the ESA requires.<sup>111</sup> The Fisheries Service's analysis of such impacts is focused on fishery gear impacts on copepods (food source for NARWs) as well as physical impacts of the gear to the sea bottom.<sup>112</sup> But the analysis appears to dismiss the impacts to NARWs of having hundreds of thousands of vertical lines in the water in places where whales congregate. The Draft BiOp states:

Fixed fishing gear also does not block the entire water column or form a wall preventing access. Vertical buoy lines supporting the fixed gear may extend throughout the water column, however, the Gulf of Maine critical habitat feeding area is vast and not constricted by geological or physical barriers, *therefore whales are free to move through and around these gears to reach their feeding resources*. The impact of entanglements on individual animals as they access their feeding resources is addressed in section 7.2 of this analysis, but is not considered an impact to whales accessing or moving within critical habitat.<sup>113</sup>

Given that entanglement in fishing gear is one of the main causes of mortality to right whales, and the reason why the Fisheries Service has been required to take action under the MMPA and ESA, the statement that “whales are free to move through and around these gears” is confounding. If the whales could easily move around the gear, there would be no need for the Draft BiOp or the proposed Risk Reduction Rule. The jungle of vertical lines in the water have a major impact on the NARW's critical habitat, and the Fisheries Service ignores the requirements of the ESA when it concludes that those lines do not adversely impact such habitat.

Furthermore, because the Fisheries Service wrongly concluded that there will be no jeopardy to North Atlantic right whales or adverse modification of critical habitat, it did not propose Reasonable and Prudent Alternatives (RPAs) to avoid such jeopardy or adverse modification, as required by the ESA. The final BiOp should include such RPAs.

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<sup>110</sup> NOAA Fisheries, *Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending The Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule – Vol. II*, Appendix 5.1, Exhibit 8 (Dec. 30, 2020).

<sup>111</sup> 16 U.S.C. § 1536(b)(3)(A).

<sup>112</sup> Draft BiOp at 83-88.

<sup>113</sup> *Id.* at 87 (italics added).

**b. By Its Own Terms, the NARW Conservation Framework Established in the Draft BiOp Will Not Meet the Goal of Reducing Take to Acceptable Levels for 10 Years – Until 2030**

In the Draft BiOp, the Fisheries Service establishes a novel policy scheduling tool, the NARW Conservation Framework for Federal Fisheries in the Greater Atlantic Region (NARW Conservation Framework), which is apparently intended to meet the MMPA and ESA goals of restoring the stock of NARWs to sustainable levels.<sup>114</sup> However, the NARW Conservation Framework appears to be at odds with the MMPA goal, as expressed in the proposed Risk Reduction Rule, of achieving a PBR for NARWs of 0.9 in the near term. The ITS that accompanies the Draft BiOp sets a level of acceptable, annual lethal take of NARWs of zero. The Draft BiOp states that, after the implementation of the measures in the proposed Risk Reduction Rule, mortality and serious injury (M/SI), which is the equivalent of lethal take, will be 2.2 for federal waters overall in 2021 (2.08 in the lobster and Jonah crab fisheries and .125 in gillnet fisheries).<sup>115</sup> It appears, then, that the Draft BiOp itself contemplates that on Day One, the lobster and Jonah crab fisheries will exceed their authorized ESA lethal take by 2.08, and the MMPA PBR by 1.9. This approach is inconsistent with the requirements in both the ESA and the MMPA.

In addition to relying on the deficient, proposed Risk Reduction Rule, the NARW Conservation Framework relies on future rulemakings (tentatively scheduled to take place in 2023, 2025, and 2030) to reduce risks to NARWs in federal and state fixed gear fisheries, as well as a review of new data and an assessment of measures taken by Canada to reduce risks to North Atlantic right whales as well as other measures. If all of these pieces come together, in a best case scenario, the NARW Conservation Framework anticipates that M/SI will be reduced to 0.85 (similar to the PBR of 0.9 under the proposed Risk Reduction Rule) *by 2025*.<sup>116</sup> Nevermind the fact that the PBR of 0.9 is already out-of-date and should likely be, even as of now, on the order of 0.7; moreover, PBR is likely to continue to decrease if adequate and effective measures are not put in place *now* to reduce the risk of fishing entanglement to NARWs. The Framework contemplates further evaluation and fisheries regulations between 2025 and 2030 to further reduce M/SI.<sup>117</sup> So, it appears that through the NARW Conservation Framework, the Fisheries Service's "proposed action" is a 10-year endeavor that takes an extremely relaxed approach to protecting a species that is in urgent need of immediate, forceful measures to prevent further decline. The NARW Conservation Framework should be revised to reflect a more urgent approach to saving the species, and to align with the ESA goal of zero lethal takes and the MMPA goal of achieving a PBR of 0.9 in the near term.

In short, the NARW Conservation Framework lays bare the fact that the agency is not taking risk reduction measures that will come anywhere near meeting the statutory requirements

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<sup>114</sup> Draft BiOp at 23.

<sup>115</sup> *Id.* at 24 (Table 2), 229-230 (Table 59), 328 (Table 79).

<sup>116</sup> Draft BiOp at 24 (Table 2).

<sup>117</sup> *Id.*

of the ESA and the MMPA. The focus of the Draft BiOp with respect to the lobster and Jonah crab fisheries should be on analyzing authorization of those fisheries under the proposed Risk Reduction Rule. By bringing in so many agency actions (e.g., “batched” fisheries; essential fish habitat amendment) as well as a novel scheduling tool, the NARW Conservation Framework, into the ESA Section 7 analysis, the agency is losing sight of its purpose and, in doing so, utterly failing to adequately address the extinction crisis at hand.

**c. The Incidental Take Statement Issued With the BiOp Authorizes an Alarming Number of Sub-Lethal Takes, Which Will Significantly Impair the Recovery of the Species**

To meet the ESA’s requirement and its court-ordered obligations, the Fisheries Service issued an ITS establishing the levels of lethal and non-lethal take of NARWs.<sup>118</sup> With regard to lethal take, as noted above, the level was set as zero, although the Fisheries Service notes that it may amend that level following the issuance of incidental take authorizations under Section 101(a)(5)(E) of the MMPA. With regard to non-lethal take, however, the Fisheries Service proposes to allow average annual take over a five year period of 11.04% of the species, which amounts to approximately *40 takes per year* assuming a stock of approximately 360 whales. As the Draft BiOp itself notes, sub-lethal takes can have serious consequences:

It is important to note that whales may not die immediately from a vessel strike or entanglement from fishing gear but may gradually weaken or otherwise be affected so that further injury or death is likely (Hayes et al. 2018a). The sublethal stress of entanglements can have a serious impact on individual health and reproductive rates (Lysiak et al. 2018, Pettis et al. 2017, Robbins et al. 2015).<sup>119</sup>

By way of example, the Draft BiOp mentions but does not even attempt to analyze the impacts of weak rope, which plays a key role in the agency’s preferred suite of proposed risk reduction measures.<sup>120</sup> Heavy reliance on weak rope, which is designed to break under the 1,700 pound force of an adult NARW *but not for juveniles and calves*, seems foolhardy at best in light of the limited testing that has been done to date. It is entirely plausible and even predictable that both lethal and sub-lethal takes are likely to occur due to weak rope. The failure of the Draft BiOp to assess takes due to weak rope or to propose a viable way to monitor and account for these takes is a clear abrogation of ESA requirements. Moreover, it begs the question of how the agency will monitor these “takes” that by design are likely not observable by sight but still must be accounted for as part of the triggering mechanism for ESA Section 7 consultations to reduce impacts of the lobster and crab fisheries on the species.

The Draft BiOp also notes that “[d]uring the first 10 years of the proposed action, the operation of the federal fisheries is likely to contribute to decreased calving rates due to the

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<sup>118</sup> *Id.* at 390; *see also id.* at 392 (Table 81).

<sup>119</sup> *Id.* at 146.

<sup>120</sup> Draft BiOp at 25-26.



sublethal effects.”<sup>121</sup> A further reduction in calving can have serious impacts on an endangered species that is already facing reduced calving rates; a population cannot recover if the number of births do not outweigh the number of deaths. Given the direct causal nexus between sub-lethal take and whale mortality and reduced fecundity, it is astonishing that the Fisheries Service sees fit to authorize such a high level of sub-lethal take. Based on the Fisheries Service's own scientific sources, it is safe to assume that some percentage of sub-lethal take results in death, so to authorize 40 such takes per year is likely the equivalent of authorizing at least several lethal takes. In fact, as a recent study shows, between 1990-2017, fishing gear entanglement accounted for the vast majority of serious injuries (87%) to NARWs, but only 49% of mortality in examined NARW carcasses. Thus, there is a pattern of entangled NARWs being more likely to die without ever having a body recovered.<sup>122</sup> Here again, the Fisheries Service is violating its obligations under the ESA and MMPA to protect NARWs by turning a blind eye to the very real risks to NARWs posed by sub-lethal takes due to entanglement in fishing gear.

**d. The Reasonable and Prudent Measures and Terms & Conditions Proposed in the BiOp Will Do Little to Prevent the Further Decline of NARWs**

Reasonable and prudent measures (RPMs) and the related terms and conditions (T&Cs) are supposed to reduce the impact of incidental take; however, the RPMs and T&Cs offered up by the Fisheries Service in the Draft BiOp are utterly insufficient. Even worse, the RPMs and T&Cs seem to reflect the Fisheries Service's admission that the measures it has proposed to reduce entanglement risk are highly unlikely to achieve the stated goals, as required under the ESA and the MMPA. The RPMs proposed in the Draft BiOp to minimize impacts on large whales and other species are a grab bag of vague measures that will do little to prevent the further decline of NARWs. These measures, discussed below, appear to be geared more toward preserving the status quo and conserving agency resources than protecting endangered species.

**1. Gear Research (RPM 1)**

RPM 1 involves the development of a “Roapmap to Ropeless Fishing” within a year of the final BiOp; this RPM is nothing more than a planning exercise. This agency action does nothing to address the immediate need to protect endangered species, including NARWs, as required by the ESA and MMPA.

The Fisheries Service's offer of continued support for whale scarring research to estimate the number and severity of entanglements is a brazen admission by the Fisheries Service that the measures in the proposed Risk Reduction Rule and the related NARW Conservation Framework are wholly inadequate. The Fisheries Service must not violate the ESA and MMPA by permitting life-threatening takes from entanglements in fishing gear to continue, while sitting back and promising to document the steady decline of the species.

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<sup>121</sup> *Id.* at 338.

<sup>122</sup> Richard Pace et al., *Cryptic mortality of North Atlantic right whales*, Conservation Science and Practice Vol. 3, Issue 2 (Feb. 2, 2021), <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.346>

## 2. Ecological Studies (RPM 2)

In RPM 2, the Fisheries Service is merely promising to conduct additional review rather than to require immediate action that will effectively reduce “take.” While continuing to review the best available scientific data is not only important but required under the law,<sup>123</sup> the Fisheries Service already has sufficient information to understand the threat that fishing gear entanglement poses to endangered species such as NARWs and must act on that information to protect the species immediately.

## 3. Handling (RPM 3)

RPM 3 involves *ex post facto* instructions for what to do once a NARW or other endangered species is bycaught or entangled in fishing gear. This RPM is yet another unabashed admission of the Fisheries Service's failure to propose measures that will *prevent* entanglement from occurring in the first place.

## 4. Monitoring 1 (RPM 4)

Monitoring and the issuance of an annual report of takes must clearly continue, but RPM 4 does nothing in the immediate term to minimize impacts of entanglements.

## 5. Monitoring 2 (RPM 5)

As to RPM 5, here again, continuing to monitor post-interaction mortality does nothing in the immediate term to minimize the impacts of entanglements.

In essence, the RPMs and T&Cs instruct commercial fisheries to continue what they have been doing and hope for a more favorable outcome. If the final BiOp is revised to find jeopardy and include RPAs, then, at a minimum, it should include more forceful, well-defined and actionable RPMs that will fulfill the ESA and MMPA requirements of minimizing the incidental take of right whales.

### **e. The ESA Section 7 Consultation Process Must be Reinitiated if the Take Monitoring Detailed in the BiOp Reveals that Authorized Take Levels Are Being Exceeded**

The Draft BiOp details the ongoing monitoring that the Fisheries Service will undertake to determine the levels of entanglement of large whales in fishing gear authorized by the

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<sup>123</sup> 16 U.S.C. § 1536(a)(2).

agency.<sup>124</sup> Reinitiation of the ESA Section 7 consultation process, and a new BiOp and ITS are required if such monitoring indicates that the authorized level of takes of NARWs is being exceeded.<sup>125</sup> Given the significant time and resources that the Fisheries Service and the various stakeholders have invested in the current ESA Section 7 process and the development of the proposed Risk Reduction Rule, Oceana urges the Fisheries Service to take much stronger, more protective emergency measures to protect NARWs now, and avoid the near certain result of having to reinitiate ESA Section 7 consultation in the near future when the next NARW is lost. With lethal takes set at zero (as they should be for NARWs) but not backed up by adequate and effective risk reduction measures, the Fisheries Service is guaranteed to find itself in a never-ending cycle of reinitiation of ESA Section 7 consultation that will only serve to further delay the immediate, emergency response required to save the NARW from further decline into functional extinction.

**f. The Draft BiOp Must Be Based on the “Best Scientific and Commercial Data Available”**

The Fisheries Service is required to use “the best scientific and commercial data available” in analyzing impacts and formulating the BiOp.<sup>126</sup> For example, a BiOp must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>127</sup> The models used to support the Draft BiOp, including the predictive modeling of the NARW population,<sup>128</sup> do not adequately address significant uncertainties, require clarifications to be fully understood, and overall require strengthening of analyses.<sup>129</sup> As one peer reviewer aptly noted, “the conclusions and interpretations could be much better supported than they currently stand”; model validation and testing “are required in order for the scientific conclusions and interpretations included in the report to be compelling and useful in the context of informing the Section 7 formal consultation.”<sup>130</sup> In a recent panel discussion evaluating the models underlying the proposed Risk Reduction Rule and the Draft BiOp, a team of experts from the Atlantic Scientific Review Group opined that “(g)iven uncertainties in model/data implementation, the agency is likely overestimating the ability of the [NARW] stock to recover. Models at the moment may not be sufficiently precautionary.”<sup>131</sup> Oceana will be submitting an expert opinion with its comment letter on the proposed Risk Reduction Rule and the Draft Environmental Impact Statement on March 1, 2021, which maintains that these models are not sufficiently precautionary and do not

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<sup>124</sup> Draft BiOp at 398.

<sup>125</sup> 50 C.F.R. § 402.16.

<sup>126</sup> 50 C.F.R. § 402.14(g)(8).

<sup>127</sup> 50 C.F.R. § 402.14(g)(8), (h)(2).

<sup>128</sup> Daniel W. Linden (NOAA/NMFS/GARFO), Population projections of North Atlantic right whales under varying human-caused mortality risk and future uncertainty (Jan. 6, 2021)

<sup>129</sup> See, e.g., Wayne Getz, Independent Peer Review of NMFS Study and Report on Predictive Modeling of North Atlantic Right Whale Population (May 2020).

<sup>130</sup> New Peer Review for “Predictive Modeling of North Atlantic Right Whale Population” (May 2020).

<sup>131</sup> ASRG Meeting Summary Notes, (Feb. 12, 2021).

incorporate the best scientific and commercial data available.<sup>132</sup> Oceana urges the agency to review this expert opinion for purposes of the BiOp as well.

**g. The Draft BiOp Must Include Consideration of Cumulative Effects of All Human Activities**

As the Draft BiOp and proposed Risk Reduction Rule make clear, NARWs are subject to a variety of hazards from human activity in the United States and elsewhere, with gear entanglement and vessel strikes being the most serious. But the Draft BiOp barely accounts for other activities when determining an acceptable level of take of NARWs, and instead acknowledges their existence and proceeds to allow a level of take that will ensure the continued decline of the species. For example, the Draft BiOp appears to put a significant burden on Canada to reduce risks to whales, such that if Canada does not enact significant measures equivalent to the U.S. measures laid out in the agency's novel policy scheduling tool, the NARW Conservation Framework proposed in the Draft BiOp, the species will continue to its inexorable decline.<sup>133</sup> The Draft BiOp states that "[t]he cumulative effect of other stressors, including Canadian fisheries and U.S. and Canadian vessel strikes must be removed or abated or this species will reach a tipping point where recovery is no longer possible."<sup>134</sup> Rather than hope for bold action by others to prevent the extinction of the species, the Fisheries Service should assume that other measures to protect NARWs will be limited, and take bold measures itself to immediately reduce take levels.

**CONCLUSION**

In light of Oceana's interests in protecting NARWs from entanglement in fishing gear, Oceana appreciates the opportunity to provide comments on the Draft BiOp. Oceana believes that the Draft BiOp fails to meet the requirements of the ESA as well as the MMPA. Specifically, the Draft BiOp fails to adequately evaluate the impacts of the authorized fisheries on endangered and depleted NARWs and fails to provide Reasonably Prudent Measures that will prevent the further decline of the species. The Draft BiOp is also misaligned with the Fisheries Service's proposed Risk Reduction Rule, and thus fails to satisfy the Fisheries Service's obligation to align its rulemakings under the ESA with the requirements of the MMPA.

In order to correct the inadequacies of the Draft BiOp, Oceana urges the Fisheries Service to take the following actions:

- specify measures that will adequately and effectively reduce risks to NARWs *now* (not 10 years from now as proposed in the NARW Conservation Framework) to prevent the further decline of the species;

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<sup>132</sup> See Expert Opinion filed with Oceana's Comment Letter on the Proposed Risk Reduction Rule and the Draft Environmental Impact Statement (Mar. 1, 2021) (available upon request)

<sup>133</sup> Draft BiOp at 341.

<sup>134</sup> *Id.* at 342.

## Oceana's Comments on the Draft BiOp

February 19, 2021

Page 24 of 24

- account for the notable impact on critical NARWs habitat caused by the presence of hundreds of thousands of vertical trap/pot lines;
- use “the best scientific and commercial data available” to conduct analysis of impacts to NARWs;
- reduce the number of sub-lethal NARW takes authorized in the fishery; and
- account for the cumulative effects on NARWs of vessel strikes and other human activities, including impacts in Canadian waters.

AND, in the interim . . .

- take emergency measures immediately using authority under the ESA, MMPA, and the MSA to significantly reduce the impact of fishing gear entanglement on NARWs (e.g., dynamic management areas).

We appreciate the opportunity to provide input and thank you for your time. We will continue to be engaged in this process moving forward.

Sincerely,



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Whitney Webber  
Campaign Director, Responsible Fishing  
Oceana

cc:

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July 21, 2017

Via e-mail to [ITP.Laws@noaa.gov](mailto:ITP.Laws@noaa.gov) and U.S. mail

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**Re: Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean; RIN 0648-XE283; 82 Fed. Reg. 26,244 (June 6, 2017); 82 Fed. Reg. 31048 (July 5, 2017).**

Dear Ms. Harrison:

Oceana, the largest international conservation organization solely focused on protecting the world's oceans, is actively engaged in shaping U.S. energy policy. Oceana has over 775,000 members and supporters worldwide with over 215,000 members and supporters along the Atlantic coast. With offices in 16 countries and projects in more than 40, the International Fund for Animal Welfare rescues individual animals, safeguards populations, and preserve habitats around the world. IFAW has more than 3.5 million members and supporters worldwide and over 1.2 million in the United States alone.

Oceana and IFAW oppose oil and gas exploration and development in the Atlantic, including the use of seismic airguns to conduct geological and geophysical (“G&G”) surveys.<sup>1</sup> For the reasons elaborated below in the Executive Summary and in greater detail in the Discussion section of this comment letter, National Marine Fisheries Service (“Fisheries Service” or “agency”) must deny the five proposed incidental harassment authorizations (“IHAs”).<sup>2</sup>

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<sup>1</sup> For purposes of this comment letter, a “G&G survey” includes surveys conducted via any technology that use sound to explore for oil and gas, including multibeam echo sounders and seismic airguns.

<sup>2</sup> While Oceana appreciates the opportunity to comment on the five proposed IHAs, the 30-day comment period, extended by a mere 15 days, is too short to allow the public sufficient time to review over 3,500 pages of technical materials and comment on this information in a meaningful manner. In accordance both the Administrative

***EXECUTIVE SUMMARY***

***REASONS WHY THE FISHERIES SERVICE MUST DENY THE PROPOSED IHAS***

***Marine Mammal Protection Act (“MMPA”)***

The Fisheries Service can only grant IHAs that adhere to the requirements of the MMPA and the regulations implementing the MMPA. The five proposed IHAs do not meet those requirements.

- The Fisheries Service must deny the five proposed IHA, because they do not meet either of the required statutory elements of “small numbers” or “negligible impact.”<sup>3</sup>
  - Small numbers: When determining the meaning of the “small numbers” requirement, federal courts have *never* found an IHA that requested a percentage of take greater than 12 to be a “small number.”<sup>4</sup> In fact, an IHA “that permits the potential taking of as much as 12 percent of the population of a species is *plainly* against Congress’ intent.”<sup>5</sup> Here, the Fisheries Service’s own proposed take limit of 30 percent of a marine mammal stock abundance estimate is not a “small number” and is “*plainly* against Congress’ intent.”<sup>6</sup> As all IHA applicants have individually exceeded the “small number” threshold of 12 percent in some manner in their take estimates, the Fisheries Service must deny all five proposed IHAs. And, if the five proposed IHA applications are reviewed with a view to

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Procedure Act as well as the Marine Mammal Protection Act regulations, the Fisheries Service should provide a separate 30-day comment period for each of the proposed IHAs. 5 U.S.C. §553; 50 C.F.R. § 216.104(b)(1), (2) (stating that for “a” proposed IHA (i.e., singular), the Fisheries Service “will invite information, suggestions, and comments for a period not to exceed 30 days”). Here, the Fisheries Service should provide 30 days for *each* of the five proposed IHAs, and this timeframe should not overlap to allow the public sufficient time to comment on each proposed IHA. Oceana therefore urges the Fisheries Service to comply with the Administrative Procedure Act and MMPA regulations and further extend the comment period to allow for five consecutive 30-day comment periods (one for each proposed IHA).

<sup>3</sup> 16 U.S.C. § 1371(a)(5)(A), (D); 50 C.F.R. § 216.103.

<sup>4</sup> See *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); see also *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015*, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an environmental organization’s claim that 43% of a population would be taken pursuant to an IHA, violating the “small numbers” requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>5</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002).

<sup>6</sup> 82 Fed. Reg. 26244, 26295 (June 6, 2017) (stating that “we propose a take authorization limit of 30 percent of a stock abundance estimate” to define “small numbers” and limiting IHA applicant takes to that level); see also *id.* at Table 10 (revising the numbers of potential incidental take proposed for authorization in the IHAs at Table 11 to reach the agency proposed “small number” level of 30% or less, which in several instances means that the agency is allowing a single IHA applicant to *increase* take levels). For example, Spectrum’s take levels for all marine mammal species but one (the blue whale) were *increased* by the Fisheries Service. The agency increased take levels for

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 3 of 99

cumulative impacts as both logic and law dictate considering the acknowledged fact that “the specified activity, specified geographic region, and proposed dates of activity are substantially similar,”<sup>7</sup> then the Fisheries Service must categorically deny all five proposed IHAs.

- Negligible impact: The Fisheries Service’s “subjective and relative” decision matrix in the Federal Register notice leads to a flawed negligible impact determination,<sup>8</sup> and one that would even allow takes in excess of the “potential biological removal level” (“PBR”) for marine mammal species in the proposed survey area.<sup>9</sup> The agency’s approach to negligible impact is illogical and unlawful. Potential biological removal levels are listed in Table 4 of the Federal Register notice and the estimated takes for the five proposed IHAs, which the agency arbitrarily revised, are listed in Table 11.<sup>10</sup> The actual estimated takes requested by the applicants are found in the IHA applications.<sup>11</sup>
  - Humpback whale: By conducting this comparison between Table 4 and Table 11 in the Federal Register, one finds that, with respect to the humpback whale, which has an annual potential biological removal level of only 13 individuals, the serious injury or mortality (Level A) take estimates from Spectrum (16), TGS (22) and CGG (22) clearly exceed 13 individuals when looked at separately. Takes of this magnitude could harm the population growth rate of the species if looked at cumulatively (as they should be).
  - Pantropical spotted dolphin: In its IHA application, CGG requested 37 serious injury or mortality (Level A) takes of the pantropical spotted dolphin.<sup>12</sup> The PBR for this species is 17.<sup>13</sup> As CGG’s take request exceeds the PBR for this species, the Fisheries Service should deny the IHA application for failure to meet the “negligible impact” standard of the MMPA.

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<sup>7</sup> 82 Fed. Reg. 26,244, 26,245 (June 6, 2017).

<sup>8</sup> 82 Fed. Reg. 26,244, 26,296 (June 6, 2017); *id.* at 26,296-26,308. In the Fisheries Service’s self-described “subjective and relative” decision matrix, a negligible impact rating is allegedly derived by combining “magnitude,” which is composed of measurable factors – amount of take, spatial extent and temporal extent of effect, “consequence”, which is a qualitative, and context, which includes species-specific information related to the status of the stock and mitigation.

<sup>9</sup> 16 U.S.C. § 1362(20). The Fisheries Service must evaluate several factors to determine the “potential biological removal level”: (1) the minimum population estimate of the stock; (2) one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size; and (3) a recovery factor of between 0.1 and 1.0. *Id.*

<sup>10</sup> 82 Fed. Reg. 26,244, 26,269-70, Table 4 – Marine Mammals Potentially Present in the Vicinity of the Proposed Survey Activities (June 6, 2017); *id.* at 26,295-96 at Table 11 – Estimated Incidents of Potential Exposure for Level B Harassment. Table 10, represents the estimated incidents of exposure as devised by the Fisheries Service to allow each individual applicant to take up to 30% of a stock abundance estimate (resulting in the take of an absurdly large number of a marine mammal species when looked at from a cumulative perspective. *Id.* at Table 10 – Numbers of Potential Incidental Take Proposed for Authorization.

<sup>11</sup> Spectrum IHA Application at Table 4; TGS IHA Application at Table 6.5, 85; WesternGeco IHA Application at Table 6.5, 83; ION IHA Application at Table 4; CGG IHA Application at Tables 4, 7.

<sup>12</sup> CGG IHA Application at Table 4.

<sup>13</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017).



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 4 of 99

- North Atlantic right whale: The PBR for the endangered and depleted population of 440 individual North Atlantic right whales is one;<sup>14</sup> however, there have been nine mortalities of North Atlantic right whales since March 2017, including two sexually mature females<sup>15</sup> and one yearling that was a female. While the PBR for North Atlantic right whales was calculated as one when the population was 440, the calculated PBR would be even further reduced as a result of the additional loss of nine individuals since March 2017.<sup>16</sup> Here, the serious injury or mortality (Level A) take estimates for Spectrum (1) and ION (2) exceed the current PBR for the right whale; therefore, their IHA applications should be denied. In addition, take estimates found in each of the five IHA applications request permission to harass North Atlantic right whales 38 times– if they harass 38 different individuals that would amount to harassment of nearly nine percent of the right whale population. See table below. Roughly nine percent is a significant number of takes for such a small population of only 440 individuals, particularly considering that the population is declining in abundance.<sup>17</sup> On this basis alone, the five proposed IHAs would not meet the “negligible impact” standard and should be denied.
- The agency’s failure to use and require IHA applicants to uniformly use the “best scientific evidence available” presents additional grounds to deny the five IHA applications.<sup>18</sup>
  - The Fisheries Service’s arbitrary choice of 30% of a stock abundance estimate as meeting the MMPA “small numbers” requirement is not based on “best scientific evidence available.”
  - Data sources for marine mammal take and abundance estimates in the five IHA applications are neither up-to-date nor uniform, and the Fisheries Service, rather than unilaterally readjusting take and abundance estimates should prescribe uniform data sources representing “best scientific evidence available” from the outset of an IHA application process. In this way, the Fisheries Service can then conduct its review and analysis on the basis of “best scientific evidence available.”

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<sup>14</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017) (noting a NMFS stock abundance of 440 for the endangered and depleted North Atlantic right whale and a PBR of one).

<sup>15</sup> *The Guardian* online (July 8, 2017), <https://www.theguardian.com/environment/2017/jul/08/right-whales-dead-canada-endangered-species>

<sup>16</sup> The potential biological removal level for the North Atlantic right whale is likely closer to .86 (440 - 9 x .02 x 1).

<sup>17</sup> North Atlantic Right Whale Consortium, *North Atlantic Right Whale Consortium 2015 Annual Report Card 3* (Nov. 2015), <http://www.narwc.org/pdf/2015%20Report%20Card.pdf>

<sup>18</sup> 16 U.S.C. § 1371(a)(3)(A) (requiring “best scientific evidence available” to determine “when, to what extent, if at all, and by what means . . . to waive the requirements . . . so as to allow taking, or importing of any marine mammal. . . .”); 50 C.F.R. § 216.102(a) (requiring “best scientific evidence available” when analyzing the taking of small numbers of marine mammals under section 101(a)(5)(A) through (D)); *see also id.* § 216.104(c); § 216.105(c).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 5 of 99

- To fully evaluate how marine mammals will respond to sound exposure, including sounds produced from G&G survey technologies, updated acoustic guidance for Level B behavioral effects is crucial. Level B guidance is almost 20 years old and is not based on the “best available scientific evidence.” Without updated Level B guidance, the Fisheries Service should deny the proposed IHAs. Any determinations regarding IHA applications involving sounds in the ocean that may cause Level B harassment of marine mammals should not be made until new Level B guidance is in place.
- The Fisheries Service applies the 2016 Acoustic Guidance in its analysis of the proposed IHAs, which is not based on the “best scientific evidence available.”<sup>19</sup> As noted in our comment letter on the 2016 Acoustic Guidance, it would be reckless for the agency to proceed with IHAs while this technical guidance is under review. The Fisheries Service should deny the proposed IHAs. Until review of the 2016 Acoustic Guidance, incorporating improvements noted in our prior comment letters, the Fisheries Service should not proceed with decision-making on the pending IHAs involving sound in the ocean.<sup>20</sup>
- Because the seismic survey activity proposed in each of the IHA applications could cause serious injury or mortality to marine mammals from both sound and ship strikes,<sup>21</sup> the Fisheries Service must deny the five proposed IHAs and require each geophysical survey company to apply for a Letter of Authorization (“LOA”) rather than an IHA.<sup>22</sup>

### *National Environmental Policy Act (“NEPA”)*

In the event the Fisheries Service does not deny the proposed IHAs (and it should), to comply with the NEPA, the agency must:

- Review the significant and *cumulative* impacts of all five IHA applications due to the similar timeframes and locations proposed for seismic surveys – either under a

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<sup>19</sup> See 82 Fed. Reg. 26,244 at 26,253, 26,254, 26,255, 26,282, Table 6, 26,292, 26,300 (June 6, 2017).

<sup>20</sup> Comments on NMFS’s Technical Guidance on Auditory Impacts on Marine Mammals (July 17, 2017) (on file with Oceana).

<sup>13</sup> BOEM, *Atlantic OCS Proposed Geological and Geophysical Activities: Mid-Atlantic and South Atlantic Planning Areas, Final Programmatic Environmental Impact Statement* (2014) at 2-20, <http://www.boem.gov/BOEM-2014-001-v1/> (acknowledging that “mitigation measures would not be 100 percent effective, and therefore there is the potential to expose some animals to sound levels exceeding the 180-dB criterion, which would constitute Level A harassment and could result in injury”) [hereinafter “BOEM 2014 Final Programmatic EIS”]; Fisheries Service, *Programmatic Geological and Geophysical Activities in the Mid- and South Atlantic Planning Areas from 2013 to 2020* at 158, 187-88 (July 19, 2013), <http://www.boem.gov/Final-Biological-Opinion-19-July-2013> (stating that “[w]hen the vulnerability of right whales to ship strikes is combined with the density of ship traffic within the distribution of right whales, ship strikes seem almost inevitable”) [hereinafter “Fisheries Service 2013 Programmatic Biological Opinion”].

<sup>22</sup> 16 U.S.C. § 1371(a)(5)(A); NOAA Fisheries, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental/> (last updated Sept. 2, 2016) (explaining that “[i]f your action has the potential to: . . . Result in ‘serious injury’ or mortality[,] Then you should: . . . ‘Apply for an LOA\* (effective up to 5 years)’ and explaining that “[f]or a Letter of Authorization, we must issue regulations.”).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 6 of 99

programmatic environmental impact statement (“EIS”) for all five proposed IHAs or via an EIS for each proposed IHA;

- Decline to tier any NEPA analysis related to the proposed IHAs to BOEM’s 2014 Atlantic Final Programmatic EIS (“PEIS”) until a new Atlantic Final PEIS is issued and the flaws are corrected, including:
  - Considering a full range of alternatives, including a preferred alternative for which the mitigation measures will adequately protect the endangered North Atlantic right whale;
  - Incorporating best scientific evidence available on acoustic thresholds for marine mammals, *following* review and revisions to the 2016 Acoustic Guidance;<sup>23</sup>
  - Evaluating information on the possible indirect impacts of Level B takes, including the possibility that Level B takes could lead to mass mortality events;
  - Ensuring the baseline against which BOEM measured environmental impacts is accurate, including reliance on updated stock assessments and consideration of the unusual mortality event for bottlenose dolphins in the Atlantic as well as the impacts of Hurricane Sandy and the 2010 British Petroleum oil-spill disaster;
  - Taking a hard look at environmental impacts of seismic airgun surveys, and, in particular, seismic airgun surveys, on essential fish habitat;<sup>24</sup>
  - Relying on the forthcoming Programmatic BiOp, rather than the outdated 2013 BiOp as was done in the 2014 Atlantic PEIS; and
  - Incorporating at least the same breadth of analysis done in the 2016 Gulf Draft PEIS in the new Atlantic Final PEIS, including:
    - Recognition that there is a “risk of entanglement any time gear, particularly lines and cables, is put in the water.”<sup>25</sup> BOEM completely failed to analyze the possibility of entanglements from G&G activities in the 2014 Atlantic Final PEIS;

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<sup>23</sup> Fisheries Service, *Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts* (July 2016), [http://www.nmfs.noaa.gov/pr/acoustics/Acoustic%20Guidance%20Files/opr-55\\_acoustic\\_guidance\\_tech\\_memo.pdf](http://www.nmfs.noaa.gov/pr/acoustics/Acoustic%20Guidance%20Files/opr-55_acoustic_guidance_tech_memo.pdf) [hereinafter “2016 Acoustic Guidance”].

<sup>24</sup> Oceana Comment Letter re: PEIS for G&G Activities in the Atlantic OCS at 162-170 of .pdf (May 7, 2014), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf); Avery B. Paxton et al., *Seismic survey noise disrupted fish use of a temperate reef*, 78 MARINE POLICY 68, 71 (2017) (stating that, during seismic surveying, reef-fish abundance declined by 78%).

<sup>25</sup> BOEM, Gulf of Mexico OCS Proposed Geological and Geophysical Activities, Draft Programmatic Environmental Impact Statement 4-74 (2016), <https://www.boem.gov/BOEM-EIS-2016-049-v1/> [hereinafter “2016 Gulf Draft PEIS”].

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 7 of 99

- Inclusion of reduced levels of seismic activities,<sup>26</sup> i.e., a reduction in the overall number of seismic airgun surveys;
  - Implementation of much larger area closures to protect marine life;<sup>27</sup>
  - Addition of concrete steps to implement a report similar to the one found in Appendix K of the 2016 Gulf Draft PEIS, which analyzes cumulative effects of G&G surveying on marine mammals;<sup>28</sup> and
  - Analysis of cumulative effects similar to Appendix L of the 2016 Gulf Draft PEIS to avoid duplicative G&G surveys in the same area.<sup>29</sup>
- Ensure all NEPA documents analyze the effects of climate change;<sup>30</sup>

### *Endangered Species Act*

Prior to making any decisions regarding the proposed IHAs, the Fisheries Service must update the 2013 Programmatic BiOp pursuant to Endangered Species Act Section 7(a)(2) to analyze the effect of seismic survey activities in the Mid- and South Atlantic planning areas.<sup>31</sup> BOEM and the Fisheries Service reinitiated consultations in 2015 to consider, among other changes, an expansion of critical habitat for the North Atlantic right whale.<sup>32</sup> We propose that the following issues be considered in any updated BiOp:

- Final rule designating critical habitat for the Northwest Atlantic distinct population segment (DPS) of loggerhead sea turtles (79 FR 39855);
- Final rule listing the Northwest Atlantic and Gulf of Mexico DPS of scalloped hammerhead shark as endangered (79 FR 38213);
- Proposed rule to expand designated critical habitat for the North Atlantic Right Whale (80 FR 9314);

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<sup>26</sup> 2016 Gulf Draft PEIS at Chapter 2.

<sup>27</sup> Compare 2016 Gulf Draft PEIS at Table ES-1 with 2014 Atlantic Final PEIS at Table 2-6.

<sup>28</sup> 2016 Gulf Draft PEIS at Appendix K at 485.

<sup>29</sup> 2016 Gulf Draft PEIS at Appendix L at 541.

<sup>30</sup> Christina Goldfuss, *Memorandum for Heads of Federal Departments and Agencies: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016) (on file with Oceana).

<sup>31</sup> Fisheries Service 2013 Programmatic Biological Opinion.

<sup>32</sup> NGO Letter to BOEM and Fisheries Service (May 26, 2016), <https://www.nrdc.org/sites/default/files/atlantic-seismic-letter-narw-20160526.pdf> (requesting renewed environmental impact review of proposed G&G activities in the Mid- and South Atlantic and Endangered Species Act review to account for significant new information regarding the status of North Atlantic right whales).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 8 of 99

- Proposed listing of the following species under the ESA: (i) Caribbean electric ray (79 FR 4877); (ii) dwarf seahorse (77 FR 25687); (iii) bigeye thresher shark (80 FR 48061); (iv) common thresher shark (80 FR 11379); (v) porbeagle shark (80 FR 16356); (vi) smooth hammerhead shark (80 FR 48053); (vii) humpback whale (80 FR 22304); (viii) and green sea turtle (80 FR 51763); and
- New information available since the issuance of the 2013 Programmatic Biological Opinion.<sup>33</sup>

In addition, in keeping with the requirement to use “best scientific evidence available,” the Fisheries Service must closely review and consider the results of any new scientific studies regarding the effects of seismic airgun surveys on endangered species in the Atlantic and/or the ecosystems on which they rely, including a new study showing that seismic airgun surveys negatively impacts zooplankton, which form the base of global marine ecosystems.<sup>34</sup> Before finalizing updates to the BiOp, the Fisheries Service should also consider another recent study about the effect of seismic surveys on marine turtles.<sup>35</sup> Once the new BiOp is released, BOEM should update the Atlantic PEIS and address all deficiencies noted above. The update of the Atlantic PEIS must happen *before* the Fisheries Service can consider tiering its NEPA analysis for the IHA applications.

### *Magnuson-Stevens Act*

*Prior* to making any decisions regarding the five proposed IHAs, in accordance with the Magnuson-Stevens Act, the Fisheries Service must consult with relevant staff in the agency regarding the adverse effects seismic airgun surveys may have on essential fish habitat.<sup>36</sup> In the context of these consultations and in compliance with the requirement to use the “best scientific evidence available,” the Fisheries Service must review the latest scientific studies including a recent study, which found that during seismic surveying, reef-fish abundance declined by 78 percent.<sup>37</sup> In addition, the Fisheries Service should heavily weigh the concerns expressed in recent letters from each of the three regional fishery management councils about the adverse

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<sup>33</sup> BOEM, *Atlantic G&G Permitting*, <http://www.boem.gov/Atlantic-G-and-G-Permitting/#Section-7> (last visited July 20, 2017).

<sup>34</sup> Robert McCauley et al., *Widely used marine seismic survey air gun operations negatively impact zooplankton*, *Nature Ecology & Evolution* (June 22, 2017) (stating that “all larval krill were killed after air gun passage”); Elizabeth Ouzts, *Advocates: New study bolsters case for Trump to reverse course on offshore oil exploration*, *Southeastern Energy News.com*, <http://southeastenergynews.com/2017/06/28/advocates-new-study-bolsters-case-for-trump-to-reverse-course-on-offshore-oil-exploration/> (June 28, 2017) (noting that NOAA spokesperson, Jennie Lyons, encouraged comment on seismic surveys, including the study on zooplankton).

<sup>35</sup> Sarah Nelms et al., *Seismic surveys and marine turtles: An underestimated global threat?*, 193 *BIOLOGICAL CONSERVATION* 49 (2016).

<sup>36</sup> 16 U.S.C. § 1855(b)(2) (stating that “[e]ach Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or *proposed to be authorized*, funding, or undertaken by such agency that may adversely affect any essential fish habitat identified under this Act.”) (emphasis added).

<sup>37</sup> Avery Paxton et al., *Seismic survey noise disrupted fish use of a temperate reef*, 78 *MARINE POLICY* 68, 71 (2017).

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

July 21, 2017

Page 9 of 99

effects of oil and gas exploration and development on recreational and commercial fisheries and the regional economies that depend on these fisheries in the Atlantic.<sup>38</sup>

### ***Coastal Zone Management Act***

*Prior* to issuing any decision on the proposed IHAs, pursuant to the Coastal Zone Management Act, the Fisheries Service must complete all coordination and consistency reviews with coastal zone management programs of Atlantic coastal states, including Maryland and Delaware.<sup>39</sup>

### ***National Marine Sanctuaries Act***

As the National Marine Sanctuaries Act makes it unlawful for any person to “destroy, cause the loss of, or injure any sanctuary resource,” the Fisheries Service’s proposed 15 km buffer around the boundaries of Gray’s Reef and Monitor National Marine Sanctuaries, located along the Atlantic coast, is insufficient to adequately safeguard these marine protected areas.<sup>40</sup> Seismic airgun blasts are loud, repetitive, explosive sounds. Because sound travels so efficiently underwater, seismic airgun blasts can be heard far from their sources – sometimes more than 2,500 miles away.<sup>41</sup> The IHA applications currently under consideration by the Fisheries Service would allow for temporally and spatially overlapping seismic surveys along the Atlantic coast that would result in harmful cumulative impacts to marine life. The proposed seismic airgun surveys would occur in an area twice the size of California, 330,032 square miles, spanning from Delaware south to central Florida.<sup>42</sup> Considering the size of the proposed survey area and the distance that seismic airgun blasts travel, the Fisheries Service should also coordinate with sanctuary managers for and arrange for mitigation measures to protect the Stellwagen Bank National Marine Sanctuary, and the Florida Keys National Marine Sanctuary.<sup>43</sup>

### ***Administrative Procedure Act***

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<sup>38</sup> Letter from the New England Fishery Management Council to Secretary Zinke, cc’ing Assistant Administrator for NOAA Fisheries, Chris Oliver; Director of NOAA Office of Protected Resources, Donna Wieting; Director of NOAA Office of Habitat Conservation, Patricia Montanio (June 29, 2017), [http://usa.oceana.org/sites/default/files/662/nefmc\\_letter\\_2017-06-29.pdf](http://usa.oceana.org/sites/default/files/662/nefmc_letter_2017-06-29.pdf); Letter from the Mid-Atlantic Fishery Management Council to Secretary Zinke, cc’ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/mafmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/mafmc_letter_2017-04-25.pdf); Letter from the South Atlantic Fishery Management Council to Secretary Zinke, cc’ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/safmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/safmc_letter_2017-04-25.pdf).

<sup>39</sup> 16 U.S.C. § 1456(c)(2), (3) (requiring Federal agencies undertaking any development project in the coastal zone of a state to “insure that the project is, to the maximum extent practicable, consistent with the enforceable policies of approved State management programs”).

<sup>40</sup> 82 Fed. Reg. 26,244, 26,266 (June 6, 2017); 16 U.S.C. § 1436(1) (stating that “it is unlawful for any person to – destroy, cause the loss of, or injure any sanctuary resource managed under law or regulations for that sanctuary”)

<sup>41</sup> Sharon Nieukirk, et al., *Sounds from airguns and fins whales recorded in the mid-Atlantic Ocean, 1999-2009*, 131 J. ACOUSTIC. SOC’Y. AM. 1102, 1102 (Feb. 2012),

<sup>42</sup> BOEM 2014 Final PEIS at Section 4.2 (noting that “the area covered by the Programmatic EIS (‘Area of Interest’ or ‘AOI’) extends from the mouth of the Delaware Bay to just south of Cape Canaveral, Florida and from the shoreline (excluding estuaries) to 648 kilometers (km) (403 miles [mi]) from shore,” with the total AOI of 854,779 km<sup>2</sup> (330,032 mi<sup>2</sup>)).

<sup>43</sup> NOAA, Office of National Marine Sanctuaries, *National Marine Sanctuaries: Visit*, <http://sanctuaries.noaa.gov/visit/#locations> (last visited July 20, 2017).

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

July 21, 2017

Page 10 of 99

While Oceana appreciates the opportunity to comment on the five proposed IHAs (860 pages), the Bureau of Ocean Energy Management (“BOEM”) 2014 Programmatic Environmental Impact Statement (“PEIS”) (2,158 pages), and the Federal Register notice itself (91 pages) as well as numerous referenced sources, the 30-day comment period, extended by 15 days, is entirely too short to allow the public sufficient time to review over 3,500 pages of technical materials and comment in a meaningful manner. In accordance with the Administrative Procedures Act as well as the Marine Mammal Protection Act regulations, the Fisheries Service should provide a separate 30-day comment period for each of the proposed IHAs.<sup>44</sup> Here, the Fisheries Service should provide 30 days for *each* of the five proposed IHAs, and this timeframe should not overlap to allow the public sufficient time to comment on each proposed IHA. Oceana urges the Fisheries Service to further extend the comment period to allow for five consecutive 30-day comment periods (one for each proposed IHA). To comply with the curtailed 45-day comment period, however, Oceana submits this comment letter.

### ***Recommendations Related to Mitigation Measures***

Finally, in the event the Fisheries Service does not deny the IHA applications (and, again, the agency should deny them), Oceana believes the proposed mitigation measures are entirely inadequate. Oceana’s recommendations for improving mitigation measures are discussed in more detail below and include:

- Permit only one seismic survey covering the proposed survey area;
- Make the seismic survey data available to industry, government (federal, tribal, state and local), and the public so that all stakeholders can make an informed cost-benefit analysis and decide whether offshore drilling should be allowed off the Atlantic coast;
- Do not consider “practicability for the applicant” to be a driving factor in setting mitigation requirements.<sup>45</sup>
- Hire visual and passive acoustic observers via an independent third-party observer provider and require scientifically-founded and standardized training and performance;
- Require at least three visual protected species observers per watch on a survey vessel to maximize the probability of sighting all marine mammals in the seismic survey area and to fully meet scientifically-based data collection requirements;
- Require at least three passive acoustic monitoring protected species observers per watch on a survey vessel to maximize the probability of acoustically detecting all marine mammals in the survey area via properly deployed and operated acoustic recording equipment that fully meets scientifically-based data collection requirements;

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<sup>44</sup> 50 C.F.R. § 216.104(b)(1), (2) (stating that for “a” proposed IHA (i.e., singular), the Fisheries Service “will invite information, suggestions, and comments for a period not to exceed 30 days”).

<sup>45</sup> 82 Fed. Reg. 26,244, 26,250 (June 6, 2017).

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

July 21, 2017

Page 11 of 99

- Monitor visual and passive acoustic observer efforts on a weekly, if not daily, basis by reviewing interim observer reports, paying close attention to the number of marine mammals “taken.”
- Ensure visual monitoring and passive acoustic monitoring are always occurring simultaneously;
- Stop all seismic survey activities when visual protected species observers cannot detect marine mammals in the survey area, including at night and under any other conditions with poor visibility;
- Formulate federal standards for passive acoustic monitoring and software that ensures quality recording and detection of marine mammals;
- Require exclusion and buffer zones that are much larger than the 500m exclusion zone and 1000m buffer zone currently proposed, ideally based on an updated version of the Fisheries Service’s 2016 Acoustic Guidance;
- Implement a 60-minute shutdown following observation of a marine mammal in the survey area;’
- Expand time-area closures to adequately account for presence of marine mammals over the course of a year, including calving and migration patterns;
- Reconsider ramp-up procedures as recent studies show that these procedures may displace marine mammals, potentially causing harm by interrupting foraging, causing stress, which can adversely affect reproduction and survival, or even push animals into areas where the risk of being caught as bycatch increases;<sup>46</sup>
- Provide transparency by sharing AIS data, all seismic survey activities, and data recorded by visual and passive acoustic monitoring protected species observers with the public daily and live stream data as often as possible as well as archive the passive acoustic monitoring feed;
- Require (not merely encourage) seismic survey companies to follow the objectives listed in the proposed IHAs for designing, turning, and operating acoustic sources:
- Conduct independent third-party acoustic monitoring, funded by seismic survey applicants, before, during and after the surveys to collect data on the impacts of these activities on marine life.

### ***Public Opposition to Offshore Oil and Gas Exploration and Development in the Atlantic***

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<sup>46</sup> Forney et al., *Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity*, 32 *Endang. Species Res.* 391-413 (May 8, 2017).



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 12 of 99

Over 125 municipalities along the East Coast and nearly 1,200 elected officials as well as an alliance representing for over 41,000 businesses and 500,000 fishing families have publicly opposed seismic airgun surveys and/or offshore drilling, citing threats to marine life, fisheries and coastal economies.<sup>47</sup> All three regional fishery management councils – New England, Mid- and South Atlantic – have sent letters to the Secretary of the Interior (cc'ing relevant leadership at the Fisheries Service) to express their concerns about the effects oil and gas exploration may have on recreational and commercial fisheries as well as the coastal economies that depend on these fisheries in the Atlantic.<sup>48</sup> On June 28, 2017, over 100 Congressional representatives, including representatives from each of the Atlantic coastal states, sent a letter to Secretary Zinke opposing the issuance of IHAs as well as seismic permits.<sup>49</sup>

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<sup>47</sup> Oceana, *Grassroots Opposition to Atlantic Drilling and Seismic Airgun Blasting*, <http://usa.oceana.org/climate-and-energy/grassroots-opposition-offshore-drilling-and-exploration-atlantic-ocean-and> (last visited July 20, 2017).

<sup>48</sup> Letter from the New England Fishery Management Council to Secretary Zinke, cc'ing Assistant Administrator for NOAA Fisheries, Chris Oliver; Director of NOAA Office of Protected Resources, Donna Wieting; Director of NOAA Office of Habitat Conservation, Patricia Montanio (June 29, 2017), [http://usa.oceana.org/sites/default/files/662/nefmc\\_letter\\_2017-06-29.pdf](http://usa.oceana.org/sites/default/files/662/nefmc_letter_2017-06-29.pdf); Letter from the Mid-Atlantic Fishery Management Council to Secretary Zinke, cc'ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/mafmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/mafmc_letter_2017-04-25.pdf); Letter from the South Atlantic Fishery Management Council to Secretary Zinke, cc'ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/safmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/safmc_letter_2017-04-25.pdf).

<sup>49</sup> Letter from 103 Congressional Representatives to Secretary Ryan Zinke (June 28, 2017), [http://usa.oceana.org/sites/default/files/662/final\\_signed\\_-\\_zinke\\_-\\_atlantic\\_seismic\\_testing\\_-\\_june\\_28\\_2017.pdf](http://usa.oceana.org/sites/default/files/662/final_signed_-_zinke_-_atlantic_seismic_testing_-_june_28_2017.pdf) (last visited July 14, 2017); Letter from 103 Congressional Representatives to Secretary Ross (July 20, 2017) (on file with Oceana).

## **BACKGROUND**

### **I. PROCEDURAL BACKGROUND**

Due to a long-standing moratorium on oil and gas drilling in the Atlantic,<sup>50</sup> G&G surveys for oil and gas exploration were last conducted in the Atlantic in the 1980s.<sup>51</sup> In 2008, President George W. Bush lifted the presidential moratorium, and Congress allowed the Congressional ban on offshore oil and gas exploration and exploitation in the Atlantic to expire.<sup>52</sup> In March 2010, President Obama approved a plan to sell oil and gas leases in the Atlantic.<sup>53</sup>

Thereafter, pursuant to a 2010 Congressional mandate,<sup>54</sup> BOEM prepared a Draft (March 2012) and Final (March 2014) Programmatic EIS on the Atlantic Outer Continental Shelf (“OCS”) Proposed Geological and Geophysical Activities for the Mid-Atlantic and South Atlantic Planning Areas (“2014 Atlantic Final Programmatic EIS”).<sup>55</sup> The 2014 Atlantic Final Programmatic EIS does not authorize G&G survey activities; rather it serves as a high-level framework for analysis of impacts.<sup>56</sup> The 2014 Atlantic Final Programmatic EIS evaluates three alternatives:

- Alternative A: to authorize G&G survey activities with time-area closures and standard mitigation; or
- Alternative B: to authorize G&G survey activities with additional time-area closures, geographic separation of simultaneous seismic airgun surveys, and use of passive acoustic monitoring; or
- Alternative C: no action – the status quo.<sup>57</sup>

BOEM selected Alternative B as the “Preferred Alternative,”<sup>58</sup> thereby sending a clear signal that permits for G&G survey activities would be considered. In addition, BOEM analyzed compliance with the MMPA and ultimately concluded that the impacts to marine mammals from

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<sup>50</sup> Congress first banned drilling off the coast of California in the 1980s, and it was expanded to the rest of the Pacific and the Atlantic and further strengthened by both Presidents George H.W. Bush and Bill Clinton. Scott Neuman, *Obama Ends Ban on East Coast Offshore Drilling*, NPR (Mar. 31, 2010), <http://www.npr.org/templates/story/story.php?storyId=125378223>.

<sup>51</sup> BOEM 2014 Final Programmatic EIS at Sections 1.2, 1.6.7.

<sup>52</sup> Scott Neuman, *Obama Ends Ban on East Coast Offshore Drilling*, NPR (Mar. 31, 2010), <http://www.npr.org/templates/story/story.php?storyId=125378223>; Dan Eggen and Steven Mufson, *Bush Rescinds Father's Offshore Oil Ban*, Washington Post (July 15, 2008), [http://www.washingtonpost.com/wp-dyn/content/article/2008/07/14/AR2008071401049\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2008/07/14/AR2008071401049_pf.html).

<sup>53</sup> Juliet Eilperin and Anne E. Komblut, *President Obama opens new areas to offshore drilling*, Washington Post (April 1, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/03/31/AR2010033100024.html?sid=ST2010033100712>.

<sup>54</sup> H.R. Rep. No. 111-319, at 98 (2009) (Conf. Rep.).

<sup>55</sup> BOEM 2014 Final Programmatic EIS, Sections 1.7.2-3, 5.3-6.

<sup>56</sup> *Id.* at vii.

<sup>57</sup> *Id.* at Chapter 2.

<sup>58</sup> *Id.* at Chapter 2.7.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 14 of 99

seismic airgun surveys are expected to be moderate.<sup>59</sup> BOEM defines “moderate impacts” in its NEPA analysis as “detectable and extensive but not severe.”<sup>60</sup> Moderate impacts “include injury and mortality,” but at low enough rates that do not threaten the continued viability of the local population or stocks.<sup>61</sup> Temporary displacement from preferred or critical habitat would also occur.<sup>62</sup> And, “some of the impacts to individual mammals may be irreversible.”<sup>63</sup>

In addition to BOEM’s 2014 Atlantic Final Programmatic EIS, in July 2013, the Fisheries Service completed its initial Programmatic Biological Opinion pursuant to Endangered Species Act Section 7(a)(2) of the Endangered Species Act in which it analyzed G&G activities in the Mid- and South Atlantic planning areas from 2013 to 2020 (“2013 Programmatic Biological Opinion”).<sup>64</sup> In 2015, BOEM and the Fisheries Service reinitiated consultations to consider, among other changes, an expansion of critical habitat for the North Atlantic right whale.<sup>65</sup> Specifically, BOEM reinitiated Section 7 consultation with the Fisheries Service about Atlantic G&G activities in light of developments in the following:

- Final rule designating critical habitat for the Northwest Atlantic distinct population segment (DPS) of loggerhead sea turtles (79 FR 39855);
- Final rule listing the Northwest Atlantic and Gulf of Mexico DPS of scalloped hammerhead shark as endangered (79 FR 38213);
- Proposed rule to expand designated critical habitat for the North Atlantic Right Whale (80 FR 9314);
- Proposed listing of the following species under the ESA: (i) Caribbean electric ray (79 FR 4877); (ii) dwarf seahorse (77 FR 25687); (iii) bigeye thresher shark (80 FR 48061); (iv) common thresher shark (80 FR 11379); (v) porbeagle shark (80 FR 16356); (vi) smooth hammerhead shark (80 FR 48053); (vii) humpback whale (80 FR 22304); (viii) and green sea turtle (80 FR 51763); and
- New information available since the issuance of the 2013 Programmatic Biological Opinion.<sup>66</sup>

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<sup>59</sup> *Id.* at 4-64.

<sup>60</sup> *Id.* at 4-48.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> Fisheries Service 2013 Programmatic Biological Opinion.

<sup>65</sup> NGO Letter to BOEM and Fisheries Service (May 26, 2016), <https://www.nrdc.org/sites/default/files/atlantic-seismic-letter-narw-20160526.pdf> (requesting renewed environmental impact review of proposed G&G activities in the Mid- and South Atlantic and Endangered Species Act review to account for significant new information regarding the status of North Atlantic right whales).

<sup>66</sup> BOEM, *Atlantic G&G Permitting*, <http://www.boem.gov/Atlantic-G-and-G-Permitting/#Section-7> (last visited July 20, 2017).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 15 of 99

Since at least 2014, several companies have applied to BOEM for permits to conduct G&G surveying in the Atlantic with the goal of identifying potential areas for oil and gas drilling.<sup>67</sup> While at least three of these permit applications have been withdrawn, several are still pending.<sup>68</sup> The permitting process for G&G surveying in the Atlantic not only requires approval from BOEM but also approval of an incidental take authorization – whether an IHA or an LOA – by the Fisheries Service.<sup>69</sup>

In July 2015, the Fisheries Service requested public input on the IHA applications to conduct G&G surveys in the Atlantic.<sup>70</sup> In August 2015, Oceana submitted comments on the four IHA applications made publicly available as of August 2015, which included applications from ION GeoVentures (“ION”), Spectrum Geo Inc. (“Spectrum”), TDI-Brooks International, Inc. (“TDI”) and TGS-NOPEC Geophysical Company (“TGS”).<sup>71</sup>

In March 2016, in response to a ground swell of opposition from coastal communities as well as other federal agencies, including the Department of Defense and NASA, the previous Administration wisely reversed its plan to open up the Atlantic to offshore oil and gas drilling for the 2017-2022 leasing program.<sup>72</sup>

Between July 2015 and November 2016,<sup>73</sup> two of the four publicly available IHA applications – Spectrum<sup>74</sup> and TGS<sup>75</sup> – were revised, a new IHA application was submitted by WesternGeco

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<sup>67</sup> BOEM, *Currently submitted Atlantic OCS Region Permits*, <http://www.boem.gov/Currently-submitted-Atlantic-OCS-Region-Permits> (last visited July 20, 2017).

<sup>68</sup> *Id.* (showing pending permit applications for TGS, GX Technology Corporation, WesternGeco LLC, CGG Services (US) Inc., Spectrum Geo Inc., PGS and TDI-Brooks International, Inc.).

<sup>69</sup> BOEM, *Atlantic G&G Permitting Process*, <http://www.boem.gov/Atlantic-Permitting-Process/> (last visited July 20, 2017).

<sup>70</sup> Taking and Importing of Marine Mammals: Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean, 80 Fed. Reg. 45,195 (July 29, 2015) [hereinafter “Notice of Receipt of IHA Applications”].

<sup>71</sup> Oceana, Comment Letter re Notice of Receipt of Applications for Incidental Harassment Authorization (“IHA”) for Geophysical Surveys in the Atlantic Ocean (Aug. 28, 2015) at 244 of .pdf, [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf).

<sup>72</sup> Jennifer A. Dlouhy, *Obama Bars Atlantic Offshore Oil Drilling in Policy Reversal*, Bloomberg (Mar. 15, 2016) (on file with Oceana). This is the second time such plans have been reversed; the 2010-2017 leasing program for the Atlantic was also reversed. *Id.*

<sup>73</sup> Notice of Receipt of IHA Applications. As of November 15, 2016, four IHAs were publicly available on the Fisheries Service’s website. As of now, all five applications are available on the Fisheries Service website. Fisheries Service, *Oil & Gas: Incidental Take Authorizations: Oil and Gas Industry Geophysical Survey Activity in the Atlantic Ocean*, <http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas.htm#atlgeo2017> (last updated July 5, 2017).

<sup>74</sup> Spectrum Geo Inc. revised its IHA request at least five times with the last publicly available version submitted as of September 18, 2015. See Spectrum Geo Inc., Amended NMFS Incidental Harassment Authorization Application at 2<sup>nd</sup> cover sheet (Sept. 18, 2015) (noting the schedule of revisions between August 2014 and September 2015), [http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas/spectrumgeo\\_2015iha\\_app\\_revised.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas/spectrumgeo_2015iha_app_revised.pdf) [hereinafter “Spectrum IHA Application”].

<sup>75</sup> TGS-NOPEC Geophysical Company’s last publicly available revision is dated February 11, 2016. TGS-NOPEC Geophysical Company, Request by TGS-NOPEC for an Incidental Harassment Authorization for the Incidental Take of Marine Mammals in Conjunction with a Proposed Marine 2D Seismic Program Mid- and South Atlantic Outer Continental Shelf, 2016-2017 (Feb. 11, 2016), [http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas/tgs\\_2015iha\\_app\\_revised.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas/tgs_2015iha_app_revised.pdf) [hereinafter “TGS IHA Application”].

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 16 of 99

LLC (“WesternGeco”),<sup>76</sup> and the TDI application was returned for revision.<sup>77</sup> In light of the invitation in July 2015 to comment “during the development of proposed authorizations,”<sup>78</sup> the revisions to existing IHA applications and a new IHA application,<sup>79</sup> as well as new Oceana maps based on scientific data recently made accessible, new scientific studies and new agency guidance (e.g., on acoustics and climate change) – all of which had emerged since July 2015, Oceana took the opportunity in November 2016 to comment on the four IHA applications posted on the Fisheries Service’s website as of that time (i.e., ION, Spectrum, TGS and WesternGeco).<sup>80</sup>

On January 5, 2017, the Director of BOEM issued a directive to the Regional Director for the Gulf of Mexico (also acting as Regional Director for the Atlantic, though not reflected in title) to deny all pending seismic permits for G&G surveys in the Atlantic.<sup>81</sup> The Director of BOEM stated:

In the present circumstances and guided by an abundance of caution, we believe that the value of obtaining the geophysical and geological information from new airgun seismic surveys in the Atlantic does not outweigh the potential risks of those surveys’ acoustic pulse impacts on marine life.<sup>82</sup>

On January 6, 2017, BOEM’s Regional Director for the Gulf of Mexico denied all six pending seismic permits for G&G surveys in the Atlantic.<sup>83</sup> In letters to the six seismic permit applicants,

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<sup>76</sup> WesternGeco, LLC submitted its last publicly available IHA request on February 17, 2016. WesternGeco, LLC, Request by WesternGeco, LLC for an Incidental Harassment Authorization for the Incidental Take of Marine Mammals in Conjunction with a Proposed Marine 2D Seismic Program Mid- and South Atlantic Outer Continental Shelf, 2016-2017 (Feb. 17, 2016),

[http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas/westerngeco\\_2015iha\\_app\\_revised.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas/westerngeco_2015iha_app_revised.pdf) [hereinafter “WesternGeco IHA Application”].

<sup>77</sup> Takes of Marine Mammals Incidental to Specified Activities: Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean, 83 Fed. Reg. 26,244 (June 6, 2017).

<sup>78</sup> Notice of Receipt of IHA Applications.

<sup>79</sup> Between July 2015 and November 2016, two of the four publicly available IHA applications – for Spectrum Geo Inc and TGS-NOPEC Geophysical Company – were revised, and a new IHA application was submitted by WesternGeco, LLC. Spectrum Geo Inc. revised its IHA request at least five times with the last publicly available version submitted as of September 18, 2015. See Spectrum IHA Application. TGS-NOPEC Geophysical Company’s last publicly available revision is dated February 11, 2016. See TGS IHA Application. WesternGeco, LLC submitted its last publicly available IHA request on February 17, 2016. See WesternGeco IHA Application.

<sup>80</sup> Fisheries Service, *Oil & Gas: Incidental Take Authorizations: Oil and Gas Industry Geophysical Survey Activity in the Atlantic Ocean*, <http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas.htm#atlgeo2017> (last updated July 5, 2017); Oceana Comment Letter re Deny Oil and Gas Incidental Take Authorizations for G&G Surveys in the Atlantic Ocean (Nov. 18, 2016) (on file with Oceana).

<sup>81</sup> BOEM, *BOEM Denies Atlantic Seismic G&G Permits* (Jan. 6, 2017), <https://www.boem.gov/press01062017/>.

<sup>82</sup> *Id.*

<sup>83</sup> Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Asif Ali, TGS (Jan. 6, 2017) (denying seismic permit application number E14-001); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Mayville, WesternGeco LLC (Jan. 6, 2017) (denying seismic permit application number E14-004); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Miller, Spectrum Geo, Inc. (Jan. 6, 2017) (denying seismic permit application number E14-006); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Virobik, ION/GX Technology Corporation (Jan. 6, 2017) (denying seismic permit application number E14-003); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Whitehead, CGG Services (US), Inc. (Jan. 6, 2017) (denying seismic permit application number E14-005);

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 17 of 99

the BOEM Regional Director reiterated the rationale provided by the BOEM Director for denying the seismic permits:

[T]he Bureau has determined that even allowing the *possibility* of impacts to the environment and existing uses in the Atlantic from airgun seismic surveys – even with the most stringent mitigations being implemented - is unnecessary at this time because:

- i. The Secretary decided to remove the Atlantic planning areas from any leasing in the 2017-2022 Five Year Program and there is no immediate need for new geophysical and geophysical (G&G) data from seismic airgun surveys to inform pending decisions;
- ii. The G&G data to be acquired could become outdated if the Atlantic is offered for oil and gas leasing activities too far into the future, as is the case now with the G&G data currently available;
- iii. Developments in technology might allow for the use of lower impact airguns or other seismic instruments that do not have the potential for the level of impacts on the environment from currently proposed airgun surveys; and
- iv. Although the mitigation measures included in the Atlantic G&G Programmatic Environmental Impact Statement may be adequate for purposes of minimizing the level of impacts that airguns could cause on the environment (e.g., North Atlantic Right Whale and other species), there is no certainty that in all cases those mitigation measures will avoid all potential impacts. Allowing the *possibility* of high intensity impacts from airguns, even if only possible in a nominal number of instances, is unnecessary given the lack of immediate need for acquiring oil and gas G&G data at this time.

No decision regarding pending IHAs had been issued as of January 6, 2017.

In March 2017, all six of the seismic permit applicants and the International Association of Geophysical Contractors (“IAGC”) appealed the denial of the seismic permits to the Interior Board of Land Appeals (“IBLA”), resulting in two separate cases before the IBLA (IBLA Nos. 2017-1035 et al. and IBLA No. 2017-1040).<sup>84</sup>

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Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Morrow, MultiKlient Invest AS (Jan. 6, 2017) (denying seismic permit application number E14-007) (all six denial letters are on file with Oceana).

<sup>84</sup> IBLA Order (Mar. 31, 2017) (consolidating IBLA 2017-135 through IBLA-2017-139 and retaining the appeal of ION/GX Technology Corporation, IBLA 2017-140, unconsolidated).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 18 of 99

On April 28, 2017, President Trump issued Executive Order 13797, directing among other things, expedited consideration of IHAs.<sup>85</sup>

On May 1, 2017, Oceana and several other environmental organizations<sup>86</sup> as well as the Business Alliance for the Protection of the Atlantic Coast (“BAPAC”) filed motions to intervene in the two IBLA cases.<sup>87</sup>

Also on May 1, 2017, Secretary of Interior Zinke issued Secretarial Order No. 3350 implementing Executive Order 13797 and directing BOEM, in cooperation with the Fisheries Service, to undertake the following activities: (i) establish a plan to expedite consideration of Incidental Take Authorization requests, including Incidental Harassment Authorizations and Letters of Authorization, that may be needed for seismic survey permits and other OCS activities; and (ii) develop and implement a streamlined permitting approach for privately-funded seismic data research and collection aimed at expeditiously determining the offshore energy resource potential of the United States. In addition, Secretary of Interior Zinke directed BOEM to expedite consideration of appealed, new or resubmitted seismic permitting applications for the Atlantic.<sup>88</sup>

On May 10, 2017, Acting Director of BOEM, Dr. Walter Cruickshank issued a memorandum: (1) to rescind the directive issued on January 5, 2017 by the prior BOEM Director denying all pending seismic permit applications to conduct airgun seismic surveys in the Mid- and South Atlantic Planning Areas; (2) to request that the Interior Board of Land Appeals (IBLA) remand to BOEM the six Atlantic G&G Permit Application denials under appeal; and (3) to direct that upon remand, BOEM’s Regional Director for the Gulf of Mexico Region reverse the denials of the seismic permits and resume the evaluation of the applications.<sup>89</sup>

On May 15, 2017, the IBLA set aside BOEM’s January 6, 2017 decision denying the seismic permits and remanded the matter back to BOEM for further consideration. In addition, the IBLA denied all pending motions to intervene in the two cases as moot and removed the appeals from its docket.<sup>90</sup>

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<sup>85</sup> Exec. Order 13795 of April 28, 2017: Implementing an America-First Offshore Energy Strategy, 82 Fed. Reg. 20,815 (May 3, 2017), <https://www.whitehouse.gov/the-press-office/2017/04/28/presidential-executive-order-implementing-america-first-offshore-energy>.

<sup>86</sup> Natural Resources Defense Council (“NRDC”) filed a motion to intervene in the two IBLA cases on behalf of NRDC, North Carolina Coastal Federation, South Carolina Coastal Conservation League, One Hundred Miles, Defenders of Wildlife, and the Center for Biological Diversity). South Carolina Environmental Law Project (SCELP) filed a motion to intervene in the two IBLA cases on behalf of BAPAC. And, Earthjustice filed a motion to intervene in the two IBLA cases on behalf of Surfrider.

<sup>87</sup> Oceana, Motion to Intervene in IBLA Nos. 2017-1035 et al. (May 1, 2017) (on file with Oceana); Oceana, Motion to Intervene in IBLA No. 2017-1040 (May 1, 2017) (on file with Oceana); *see also* IBLA Order (May 15, 2017) (on file with Oceana)

<sup>88</sup> Secretary Zinke Order No. 3350 (May 1, 2017), <https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350.pdf>.

<sup>89</sup> Letter from Walter Cruickshank, BOEM Acting Director, to Michael Celata, Regional Director, Gulf of Mexico Region (May 10, 2017) (on file with Oceana).

<sup>90</sup> IBLA Order (May 15, 2017) (on file with Oceana).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 19 of 99

On May 16, 2017, BOEM's Regional Director for the Gulf of Mexico Region notified the seismic permit applicants that BOEM would resume evaluation of the applications.<sup>91</sup>

Despite the fact that no oil and gas leasing is to occur in the Atlantic for the 2017-2022 lease program and any new Five-Year Leasing Program would not begin until at least 2019, the Fisheries Service also resumed its review of the pending IHAs. On June 6, 2017, the Fisheries Service issued a Federal Register notice to solicit comments within 30 days for all five proposed IHAs, which includes over 3500 pages of technical documentation. On July 5, 2017, the Fisheries Service issued a second Federal Register notice granting the public an additional 15 days to review the same materials.<sup>92</sup>

The five IHA applications are now all outdated in light of the old scientific information contained therein and the lapsed timeframes for which each applicant requested seismic activities. The proposed seismic survey area extends from Delaware to Cape Canaveral, Florida in the Mid- and South Atlantic planning areas.<sup>93</sup>

While Spectrum and ION's applications remain the same as when the Fisheries Service initially requested comments in July 2015, the TDI-Brooks IHA application is no longer among them, because the Fisheries Service returned it to TDI-Brooks for revision.<sup>94</sup> TGS' IHA application has been updated since it was first submitted and commented on in July 2015; the publicly available TGS IHA application is dated February 11, 2016.<sup>95</sup> WesternGeco, LLC ("WesternGeco") likely submitted an IHA application sometime after July 2015 as it was not part of the prior comment period; the publicly available WesternGeco IHA application is dated February 17, 2016.<sup>96</sup> At some point, the Fisheries Service received the IHA application for CGG, which is dated December 2015; however, the CGG IHA Application, like WesternGeco's was not part of the

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<sup>91</sup> Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Asif Ali, TGS (May 16, 2017) (rescinding denial and resuming evaluation of seismic permit application number E14-001); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Mayville, WesternGeco LLC (May 16, 2017) (rescinding denial and resuming evaluation of seismic permit application number E14-004); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Miller, Spectrum Geo, Inc. (May 6, 2017) (rescinding denial and resuming evaluation of seismic permit application number E14-006); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Virobik, ION/GX Technology Corporation (May 16, 2017) (rescinding denial and resuming evaluation of seismic permit application number E14-003); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Whitehead, CGG Services (US), Inc. (May 16, 2017) (rescinding denial and resuming evaluation of seismic permit application number E14-005); Letter from Mike Celata, BOEM Regional Director Gulf of Mexico Region, to Mr. Morrow, MultiKlient Invest AS (May 16, 2017) (rescinding denial and resuming evaluation of seismic permit application number E14-007) (all six letters are on file with Oceana).

<sup>92</sup> 82 Fed. Reg. 31,048 (July 5, 2017).

<sup>93</sup> Notice of Receipt of IHA Applications at 45,196.

<sup>94</sup> 82 Fed. Reg. 26,244, 26,245 (June 6, 2017).

<sup>95</sup> TGS IHA Application; *see also* Notice of Receipt of IHA Applications at 45,196 (noting that TGS "submitted an application on August 25, 2014, followed by revised versions on November 17, 2014, and July 21, 2015).

<sup>96</sup> WesternGeco IHA Application; *see also* Notice of Receipt of IHA Applications at 45,196 (lacking any discussion of a WesternGeco IHA Application, which would appear to indicate that the application was received *after* the Notice of Receipt of IHA Applications was issued).



# Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 20 of 99

notice and comment period in July 2015.<sup>97</sup> In short, there are two pre-existing IHA applications (Spectrum and ION) and three “new” IHA applications for which the Fisheries Service has requested comments.

*Before* BOEM can grant a seismic permit to an applicant, the Fisheries Service must issue an IHA (or LOA as the situation demands).<sup>98</sup> Because the issuance of an IHA or LOA is a “major federal action,” if the Fisheries Service issues any of the IHAs requested by the five G&G survey companies, the Fisheries Service, like BOEM, must comply with NEPA. In addition, the Fisheries Service must comply with the Endangered Species Act, the Magnuson-Stevens Act, the Coastal Zone Management Act, and the National Marine Sanctuaries Act. And, the agency must comply with the Administrative Procedure Act by following proper procedures, including public notice and comment procedures.

## II. FACTUAL BACKGROUND

### a. The United States has a surplus of oil and natural gas

The United States has a surplus in oil and natural gas, thanks in part to the boom in natural gas that began in the mid-2000s.<sup>99</sup> The United States is currently exporting more oil products to Latin American than it imports.<sup>100</sup> Oil prices are continuing to drop, and are currently at the lowest price since mid-November 2016.<sup>101</sup> With a surplus in oil resources and reduced oil prices, there is no need to explore for or exploit oil and gas resources in the Atlantic. In fact, expanded exploration and production could have negative implications for the oil industry and the overall U.S. economy by driving a continued downward trend in oil prices, when combined with flat costs, would produce lower profit margins for all extraction companies.<sup>102</sup> These impacts can

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<sup>97</sup> 82 Fed. Reg. 26,244, 26,245 (June 6, 2017) (acknowledging that the current Federal Register notice for proposed IHAs “does not concern one additional company (TDI-Brooks International, Inc. (TDI Brooks)) whose application was referenced in our July 29, 2015 Federal Register notice, and includes two other companies (WesternGeco, LLC (Western) and CGG) whose applications were not included in our July 29, 2015 notice”).

<sup>98</sup> BOEM, *Atlantic G&G Permitting Process*, <http://www.boem.gov/Atlantic-Permitting-Process/> (last visited Nov. 11, 2016); BOEM 2014 Final Programmatic EIS, Chapter 1.6.7, 1-14 (“To comply with the MMPA, BOEM-issued approval for G&G activities will be conditional on the operator obtaining MMPA authorization (LOA or IHA), if necessary, from NMFS and/or FWS”).

<sup>99</sup> Roger Yu, *Oil prices fall below \$50 as U.S. supplies hit record*, USA Today (Mar. 9, 2017), <https://www.usatoday.com/story/money/2017/03/09/crude-oil-prices-fall-below-50-us-stockpiles-rise/98951274/>; Matt Egan, *U.S. running out of space to store oil*, CNN Money (Feb. 4, 2016), <http://money.cnn.com/2016/02/04/investing/oil-prices-space-us-inventories-supply-glut/index.html> (stating that “[t]he U.S. now has nearly 503 million barrels of commercial crude oil stockpiled” and is at “the highest level for this time of the year in at least 80 years”); E. Russel Braziel, *U. S. Natural Gas Supply Expanding to Surplus Levels*, THE AMERICAN OIL & GAS REPORTER (2014), <http://www.aogr.com/magazine/cover-story/u.s.-natural-gas-supply-expanding-to-surplus-levels-demand-growth-will-fall>.

<sup>100</sup> Laura Blewitt & Javier Blas, *U.S. enjoys first-ever oil trade surplus with Latin America*, WORLD OIL (Feb. 2, 2017), <http://www.worldoil.com/news/2017/2/1/us-enjoys-first-ever-oil-trade-surplus-with-latin-america>.

<sup>101</sup> Sue Goodridge, *Oil Prices Tumbled to \$45: The Impact on Offshore Drilling*, MARKET REALIST (June 26, 2017), <http://marketrealist.com/2017/06/oil-prices-tumbled-to-45-the-impact-on-offshore-drilling/>.

<sup>102</sup> Christine Baumeister, *No: The Damage to the Oil Sector Cancels Out the Positives in Are Low Oil Prices Good for the Economy?* WALL STREET JOURNAL (Nov. 13, 2016), <https://www.wsj.com/articles/are-low-oil-prices-good-for-the-economy-1479092581>; Christine Baumeister and Lutz Killian, *How Much the 2014-2-16 Oil Price Decline*

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 21 of 99

already be seen with continuing decreases in the number of drilling operations engaged in the Gulf of Mexico.<sup>103</sup>

The Atlantic region has the lowest oil and gas resource potential when compared to other regions of the outer continental shelf.<sup>104</sup> At the current price points and consumption rates, there are oil 192 days of oil and 112 days of natural gas that are economically viable in the Atlantic.<sup>105</sup> These potential resources are a drop in the bucket, and not worth risking the coastal economies of the Atlantic.

### b. G&G survey companies

Only one of the five G&G survey companies appears to be a wholly owned U.S. company.<sup>106</sup> Ion GeoVentures, is a division of Houston-based Ion Geophysical.<sup>107</sup> Spectrum Geo is the Houston division of Norway's Spectrum ASA.<sup>108</sup> TGS-NOPEC Geophysical Company (“TGS”) is owned by Norwegian parent company, NOPEC International ASA.<sup>109</sup> WesternGeco LLC (“WesternGeco”) is a division of Schlumberger, an international firm with principal offices in Paris, Houston, London and The Hague.<sup>110</sup> CGG Services (U.S.) Inc. (“CGG”) is a fully owned subsidiary of CGG SA, which is the group holding company headquartered in France.<sup>111</sup> CGG appears to be in the process of financial restructuring, including reducing the size of its fleet from 18 to 5 vessels, cutting overhead by 61% and halving the number of permanent employees.<sup>112</sup> TDI-Brooks International of College Station, Texas, also submitted an IHA application, but its application was returned for revisions.<sup>113</sup>

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*Stimulated the Economy*, VOX (May 18, 2017), <http://voxeu.org/article/missing-stimulus-2014-16-us-oil-price-decline>.

<sup>103</sup> Daniel J. Graeber, *U.S. Offshore Oil Production on the Rise*, UPI (Apr. 13, 2017), <http://www.upi.com/US-offshore-oil-production-on-the-rise/3951492077619/>.

<sup>104</sup> BOEM, *Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation’s Outer Continental Shelf*, 2016, <https://www.boem.gov/2016-National-Assessment-Fact-Sheet/>.

<sup>105</sup> *Id.*; U.S. Energy Information Administration, *Petroleum and Other Liquids: Spot Prices*, [https://www.eia.gov/dnav/pet/pet\\_pri\\_spt\\_s1\\_d.htm](https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm) (last visited July 19, 2017); U.S. Energy Information Administration, *Natural Gas Weekly Update* (July 13, 2017) <https://www.eia.gov/naturalgas/weekly/>; U.S. Energy Information Administration, *Frequently Asked Questions*, <https://www.eia.gov/tools/faqs/faq.php?id=45&t=8> (last visited July 19, 2017). Using Table 2 of BOEM (2016) and the most recent prices available for crude oil (\$44.40/barrel) and natural gas (\$2.90/MMBtu or ~\$3.01/Mcf using conversion ratio of 1.037), UERR was estimated by rounding upwards (more conservative estimate) using the \$60/barrel and \$3.20/Mcf values for estimating UERR.

<sup>106</sup> Sue Sturgis, *Institute Index: Will Trump let foreign seismic testing firms blast the Atlantic?*, Facing South: A Voice for a Changing South, <https://www.facingsouth.org/2017/06/institute-index-will-trump-let-foreign-seismic-testing-firms-blast-atlantic> (June 29, 2017).

<sup>107</sup> ION, *About Us*, [http://www.iongeo.com/About\\_Us/](http://www.iongeo.com/About_Us/) (last visited July 20, 2017).

<sup>108</sup> Spectrum, *About: Company History*, <http://www.spectrumgeo.com/about/company-overview/company-history> (last visited July 20, 2017).

<sup>109</sup> TGS, *Company History*, <http://www.tgs.com/about-tgs/company-history/> (last visited July 20, 2017).

<sup>110</sup> Schlumberger, *Backgrounder* <http://www.slb.com/about/who/backgrounder.aspx> (last visited July 20, 2017).

<sup>111</sup> CGG, *Who We Are: CGG Worldwide*, <http://www.cgg.com/en/Who-We-Are/CGG-Worldwide> (last visited July 20, 2017).

<sup>112</sup> CGG, *CGG Financial Restructuring*, <http://restructuring.cgg.com/en/> (last visited July 20, 2017).

<sup>113</sup> 82 Fed. Reg. 26,244, 26,245 (June 6, 2017).

**c. Overlapping timeframes and locations for proposed G&G surveys**

In the five pending IHA applications, the G&G survey companies propose to conduct seismic surveys in approximately the same geographic location at overlapping, albeit lapsed, timeframes over the course of the same year.<sup>114</sup>

- ION
  - Proposed Timeframe: July – December 2016<sup>115</sup>
  - Proposed Location: proposed survey area is off the U.S. east coast from ~38.5°N off Delaware to ~27.9°N off Florida, and from 20 km from the coast to >600 km from the coast.<sup>116</sup>
- Spectrum
  - Proposed Timeframe: February – July 2016<sup>117</sup>
  - Proposed Location: offshore of portions of the U.S. Atlantic coast within the Mid- and South Atlantic Planning Areas from Delaware to northern Florida as shown in Figure 1. Water depths in the survey grid range from approximately 30 to 5,410 m (98 to 17,749 ft). There will be no survey activity data collection performed in state waters with only survey tie-in lines that are perpendicular to the shore that approach the state-federal line and the eastern most survey lines extending out to the extended continental shelf boundary, located 350 nm from shore. The closest parallel line to shore is located approximately 35.7 km (19.3 nmi) from Hatteras Beach North Carolina’s Eastern Shore and the furthest planned survey line located approximately 280 km (175 miles) offshore Hatteras Beach, North Carolina<sup>118</sup>
- TGS
  - Proposed Timeframe: February 2016 – January 2017<sup>119</sup>
  - Propose Location: within and beyond the U.S. Exclusive Economic Zone (EEZ) (offshore to the extended continental shelf [200 nm limit]) waters of the northwestern Atlantic Ocean between the northern limit of 38.5°North (N) and the southern limit of 28°N<sup>120</sup>

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<sup>114</sup> 82 Fed. Reg. 26,244, 26,245 (June 6, 2017) (acknowledging that the “specified activity, specified geographic region, and proposed dates of activity are substantially similar for the five separate requests for authorization”).

<sup>115</sup> ION IHA Application at 10.

<sup>116</sup> *Id.*

<sup>117</sup> Spectrum IHA Application at 5.

<sup>118</sup> *Id.*

<sup>119</sup> TGS IHA Application at 10-11.

<sup>120</sup> *Id.*

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 23 of 99

- WesternGeco
  - Proposed Timeframe: April 2016 – March 2017<sup>121</sup>
  - Proposed Location: within and beyond the U.S. Exclusive Economic Zone (EEZ) (offshore to the extended continental shelf [200 nm limit]) waters of the northwestern Atlantic Ocean between the northern limit of 38°North (N) and the southern limit of 30°N<sup>122</sup>
- CGG
  - Proposed Timeframe: July 2016-December 2016<sup>123</sup>
  - Proposed Location: federal waters of the Mid- and South Atlantic region extending from Georgia and Virginia, which seismic activities occurring a minimum of 80 km (50 mi) from shore in water depths ranging between 100 m (328 ft) to over 5,000 m (16,404 ft).<sup>124</sup>

All of the IHA applications propose to conduct surveys in the same geographic location; a stretch of the Mid- and South Atlantic from Delaware to Florida.<sup>125</sup> While the requested timeframes have now substantially passed, they overlapped during the relevant year, and will likely overlap in the future if the IHA applications are all approved at the same time.

### d. G&G survey technologies

G&G surveys collect information that the government and industry use to determine the potential for offshore oil, gas, methane hydrate resources, non-energy/marine mineral resources, and geologic hazards.<sup>126</sup> The typical categories of G&G surveys, by equipment type and survey technique, are:

- Hydrocarbon Exploration and Development Deep-Penetration Seismic;
- High-Resolution Geophysical (HRG) Seismic;
- Electromagnetic, Magnetic, Gravity, and Remote Sensing; and

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<sup>121</sup> WesternGeco IHA Application at 10-11.

<sup>122</sup> *Id.*

<sup>123</sup> CGG IHA Application at 16.

<sup>124</sup> *Id.*

<sup>125</sup> Oceana, *Animated Maps Show Dolphins and Whales Threatened by Seismic Airgun Blasting in Atlantic Ocean* (Aug. 24, 2016), [http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?\\_ga=1.43826533.191812998.1462817124](http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?_ga=1.43826533.191812998.1462817124).

<sup>126</sup> BOEM, *Types of Geological and Geophysical Surveys and Equipment* (June 2013), <http://www.boem.gov/G-and-G-Survey-Techniques-Information-Sheet/>.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 24 of 99

- Geological Testing (Bottom Sampling and Drilling/Coring).<sup>127</sup>

A typical seismic airgun survey involves a vessel traveling in successive parallel lines while towing one or multiple airgun arrays as well as a hydrophone streamer that is often 10 km or more in length.

Seismic airgun noise is one of the loudest sources of noise in the oceans.<sup>128</sup> Seismic airguns release pressurized air bubbles to create powerful sound waves that travel through the water column and seafloor<sup>129</sup> and provide information about the properties of geologic formations more than six miles below the seafloor.<sup>130</sup> These sound waves travel as echoes back to the sea surface, where they are captured by hydrophones.<sup>131</sup> Seismic airgun survey characteristics include:

- loud blasts repeated every 10-12 seconds;<sup>132</sup>
- repeated blasts for days, weeks, or months at a time;<sup>133</sup>
- approximately 12-48 individual airguns in one array;
- up to 96 airguns on a single vessel;<sup>134</sup>
- coverage of sea surface area by the largest towed seismic arrays was 21 times larger than the National Mall in Washington, D.C.;<sup>135</sup> and
- seismic airgun blasts that travel as far as 2,500 miles from the source under some propagation conditions.<sup>136</sup>

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<sup>127</sup> *Id.*

<sup>128</sup> Brad Badelt, *The Inventor of the Seismic Air Gun Is Trying to Supplant His Controversial Creation*, HAKAI MAGAZINE (Dec. 3, 2015), <https://www.hakaimagazine.com/article-short/inventor-seismic-air-gun-trying-supplant-his-controversial-creation>.

<sup>129</sup> The Acoustic Ecology Institute, *Backgrounder: Seismic Surveys at Sea: The contributions of air guns to ocean noise* (Nov. 2004), [http://www.oceanmammalinst.com/Backgrounder\\_SeismicSurveys.pdf](http://www.oceanmammalinst.com/Backgrounder_SeismicSurveys.pdf).

<sup>130</sup> National Research Council – Committee on Potential Impacts of Ambient Noise in the Ocean on Marine Mammals, *Ocean Noise and Marine Mammals* (2003).

<sup>131</sup> The Acoustic Ecology Institute, *Backgrounder: Seismic Surveys at Sea: The contributions of air guns to ocean noise* (Nov. 2004), [http://www.oceanmammalinst.com/Backgrounder\\_SeismicSurveys.pdf](http://www.oceanmammalinst.com/Backgrounder_SeismicSurveys.pdf).

<sup>132</sup> National Research Council – Committee on Potential Impacts of Ambient Noise in the Ocean on Marine Mammals, *Ocean Noise and Marine Mammals* (2003).

<sup>133</sup> Susanna B. Blackwell, et al., *Effects of Airgun Sounds on Bowhead Whale Calling Rates: Evidence for Two Behavioral Thresholds*, PLOS ONE (June 3, 2015).

<sup>134</sup> National Research Council – Committee on Potential Impacts of Ambient Noise in the Ocean on Marine Mammals, *Ocean Noise and Marine Mammals* (2003).

<sup>135</sup> Mike Schuler, *MV Sanco Sword Tows Record-Setting Seismic Streamer Spread*, GCAPTAIN (Mar. 25, 2015), <http://gcaptain.com/mv-sanco-sword-tows-record-setting-seismic-streamer-spread/#>.

<sup>136</sup> Sharon Nieukirk, et al., *Sounds from airguns and fins whales recorded in the mid-Atlantic Ocean, 1999-2009*, 131 J. ACOUSTIC. SOC'Y. AM. 1102, 1102 (Feb. 2012),

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 25 of 99

Seismic airgun blasts are loud, repetitive, explosive sounds. Because sound travels so efficiently underwater, seismic airgun blasts can be heard far from their sources – sometimes more than 2,500 miles away.<sup>137</sup> Geophysicist Stephen Chelminski invented seismic airguns in the mid-1960s to replace the use of dynamite for oil and gas exploration. Currently, he not only advocates against the use of seismic airguns but is also working on new technology to replace it called marine vibroseis. Chelminski stated that the “noise level is much, much less” and “[t]here’s no doubt that it will be better for marine life.”<sup>138</sup>

The IHA applications currently being considered by the Fisheries Service would potentially allow temporally and spatially overlapping seismic airgun surveys along the Atlantic coast that would result in cumulative impacts to marine life. Seismic airgun surveys would occur in an area twice the size of California, 330,032 square miles, spanning from Delaware south to central Florida.<sup>139</sup>

### e. Impacts of G&G Survey Technologies on Marine Mammals

#### i. Noise Impacts of G&G Surveys on Marine Mammals

Sound is a key element of the marine environment, which marine mammals use for breeding, feeding, navigating, and avoiding predators.<sup>140</sup> Human-made sound, including sound from G&G survey technologies (e.g., seismic airguns and multibeam echo sounders) can negatively affect marine mammal hearing and can lead to disturbances in behavior that may cause serious injury. Sound from seismic airguns has been recorded from more than 2,500 miles (4,000 km) away, which is the distance from Washington, DC to Las Vegas, Nevada.<sup>141</sup> Seismic surveys could continue for days, weeks, and even months at a time exposing marine mammals in the Atlantic Ocean ecosystem to harmful noise.

In March 2015, a group of 75 leading marine scientists, including leading biologists and bioacousticians, expressed concern over “significant, long-lasting, and widespread impacts [from

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<sup>137</sup> *Id.*

<sup>138</sup> Brad Badelt, *The Inventor of the Seismic Air Gun Is Trying to Supplant His Controversial Creation*, Hakai Magazine: Coastal Science and Studies (Dec. 3, 2015), <https://www.hakaimagazine.com/article-short/inventor-seismic-air-gun-trying-supplant-his-controversial-creation>

<sup>139</sup> BOEM 2014 Final Programmatic EIS at Section 4.2 (noting that “the area covered by the Programmatic EIS (‘Area of Interest’ or ‘AOI’) extends from the mouth of the Delaware Bay to just south of Cape Canaveral, Florida and from the shoreline (excluding estuaries) to 648 kilometers (km) (403 miles [mi]) from shore,” with the total AOI of 854,779 km<sup>2</sup> (330,032 mi<sup>2</sup>)).

<sup>140</sup> Oceana Comment Letter re *Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing* (Sept. 14, 2015); Letter from Oceana and 61 NGOs to Abigail Ross Hopper, Director, Bureau of Ocean Energy Management (April 28, 2016).

<sup>141</sup> NOAA Office of Science and Technology, *Sound Check: New NOAA Effort Underway to Monitor Underwater Sound*, <http://www.st.nmfs.noaa.gov/feature-news/acoustics> (last updated Aug. 24, 2015); see also Oceana Press Release, *New Oceana Animated Maps Show Dolphins and Whales Threatened by Seismic Airgun Blasting in Atlantic Ocean* (Aug. 24, 2016), <http://usa.oceana.org/press-releases/new-oceana-animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting>.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 26 of 99

seismic airgun surveys]” on the region’s marine mammal populations.<sup>142</sup> These scientists called on the Administration “to reject the Interior Department’s environmental analysis and its decision to introduce seismic oil and gas surveys in the Atlantic.”<sup>143</sup>

As the scientific studies for specific species cited below demonstrate, seismic airgun noise can alter the behavior of marine mammals.<sup>144</sup> Of particular concern are the large whale species distributed along the Atlantic coast of the United States, as most are listed as endangered under the Endangered Species Act. These whales rely on sound for feeding, communication, navigation, and other behaviors necessary for survival. Studies show that seismic airgun noise can cause hearing impairment, physiological changes, and behavioral changes.<sup>145</sup> These include chronic stress, avoidance, displacement, communication masking, and vocalization changes.<sup>146</sup>

### *Fin whale:*

Fin whales modify their singing behavior and abandon habitat in response to survey airgun activity, which has implications for fin whale reproductive success and population survival.<sup>147</sup> If fin whale individuals spend energy on abandoning habitats or are pushed out of habitats used for feeding or breeding, the population could be hurt by losing time for reproduction and feeding.<sup>148</sup>

### *Sperm whale:*

Sperm whales use buzzing calls to locate their prey. In the presence of seismic noise, sperm whales in the Gulf of Mexico decreased their buzz calling rates, which suggests that their foraging ability may be negatively impacted.<sup>149</sup>

### *Humpback whale:*

In a study of humpback whales off the coast of Northern Angola, the number of humpback whale singers significantly declined as levels of seismic survey pulses increased. The male humpback whales in this area were vocalizing in a breeding region. This study illustrates how seismic airgun noise can interfere with humpback whale breeding behavior and therefore survival.<sup>150</sup>

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<sup>142</sup> Letter from Christopher Clark, et al. to President Barack Obama (Mar. 5, 2015), [http://docs.nrdc.org/wildlife/files/wil\\_15030401a.pdf](http://docs.nrdc.org/wildlife/files/wil_15030401a.pdf); see also Oceana Press Release, *Leading Scientists Set the Record Straight on Seismic Airgun Blasting in the Atlantic: “Seismic Activity is Likely to Have Significant, Long-lasting, and Widespread Impacts”* (Mar. 5, 2015), <http://usa.oceana.org/press-releases/leading-scientists-set-record-straight-seismic-airgun-blasting-atlantic-%E2%80%9Cseismic>.

<sup>143</sup> *Id.*

<sup>144</sup> Douglas P. Nowacek, et al., *Marine seismic surveys and ocean noise: time for coordinated and prudent planning*, 13 FRONTIERS IN ECOLOGY AND THE ENVIRONMENT 378-386 (2015).

<sup>145</sup> Jonathan Gordon, et al., *A Review of the Effects of Seismic Surveys on Marine Mammals*, 37 MAR. TECHNOL. SOC. J. 16-34 (Winter 2004).

<sup>146</sup> *Id.*

<sup>147</sup> Manuel Castellote, et al., *Acoustic and Behavioural Changes by Fin Whales (*Balaenoptera Physalus*) in Response to Shipping and Airgun Noise*, 147 BIOLOGICAL CONSERVATION 115-22 (Mar. 2012).

<sup>148</sup> *Id.*; Bruce S. McEwen & John C. Wingfield, *The concept of allostasis in biology and biomedicine*, 43 HORMONES AND BEHAVIOR 2-15 (2003).

<sup>149</sup> P.J.O. Miller, et al., *Using at-Sea Experiments to Study the Effects of Airguns on the Foraging Behavior of Sperm Whales in the Gulf of Mexico*, 56 DEEP-SEA RESEARCH I 1168-81 (Mar. 17, 2009).

<sup>150</sup> Salvatore Cerchio, et al., *Seismic Surveys Negatively Affect Humpback Whale Singing Activity off Northern Angola*, PLOS ONE (2014).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 27 of 99

### *Bowhead whale:*

The bowhead whale is a close relative of the North Atlantic right whale. In response to seismic airgun activity, bowhead whales change their breathing patterns, avoid testing areas, and decrease their vocalization rates, leading to almost complete silencing.<sup>151</sup> These alterations in behavior could reduce their ability to feed, reproduce, and maintain sufficient energy reserves.

### *North Atlantic right whale:*

North Atlantic right whales are likely to experience similar deleterious effects as a result of seismic survey noise. Even exposure to low-frequency ship noise appears to cause chronic stress in right whales, weakening their immune function and decreasing reproductive rates, demonstrating how loud sources of ocean noise can harm North Atlantic right whales.<sup>152</sup> The negative impacts of noise on North Atlantic right whale reproduction are of particular importance given the endangered status of the population, which appears more vulnerable than previously thought, with only about 440 individuals remaining.<sup>153</sup>

In addition, in July 2016, the Fisheries Service's released acoustic guidance (discussed in more detail below) recognizes that marine mammal hearing loss – whether temporary or permanent – is of significant concern.<sup>154</sup> While the 2016 Acoustic Guidance is under review and should be updated in accordance with our prior comment letters,<sup>155</sup> it does note that hearing impairment occurs through either a Temporary Threshold Shift (TTS) or a Permanent Threshold Shift (PTS). A TTS is the mildest form of auditory injury, when the hearing threshold (i.e. the ability to hear a sound) is raised and a sound must be stronger in order to hear it.<sup>156</sup> A temporary change in hearing or TTS can last from minutes to hours and in some cases days.<sup>157</sup> PTS is considered a

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<sup>151</sup> W. John Richardson, et al., *Displacement of migrating bowhead whales by sounds from seismic surveys in shallow waters of the Beaufort Sea*, 106 J. ACOUSTIC. SOC'Y. AM. 2281 (1999); Frances Robertson, *Seismic operations have variable effects on dive-cycle behavior of bowhead whales in the Beaufort Sea*, 21 ENDANG. SPECIES RES. 143-60 (Aug. 13, 2013); Susanna B. Blackwell, et al., *Effects of airgun sounds on bowhead whale calling rates in the Alaskan Beaufort Sea*, 29 MARINE MAMMAL SCIENCE E342-65 (Oct. 2013).

<sup>152</sup> Rosalind M. Rolland, et al., *Evidence That Ship Noise Increases Stress in Right Whales*, 279 PROC. R. SOC. B 2363-68 (June 22, 2012).

<sup>153</sup> Fisheries Service, *NOAA Technical Memorandum NMFS-NE-241: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016* at Table 1 (June 2017), <https://www.nefsc.noaa.gov/publications/tm/tm241/tm241.pdf>.

<sup>154</sup> 2016 Acoustic Guidance.

<sup>155</sup> Comments on NMFS's Technical Guidance on Auditory Impacts on Marine Mammals (July 17, 2017) (on file with Oceana).

<sup>156</sup> W. John Richardson and Valerie D. Moulton, *Appendix C: Review of the Effects of Airgun Sounds on Marine Mammals* at 25 in Shell Kanumas, Environmental Impact Assessment, 2012 Shallow Coring in Baffin Bay, Northwest Greenland (2012), <http://naalakkersuisut.gl/~media/Nanoq/Files/Hearings/2012/Shell%20Kanumas/Answers/Bilagene%20til%20EIA/Shell%20Shallow%20Coring%20EIA%20Appendix%20C.pdf> [hereinafter "Richardson and Moulton, *Appendix C*"].

<sup>157</sup> Richardson and Moulton, *Appendix C* at 25; see also T. Aran Mooney, et al., *Predicting temporary threshold shifts in a bottlenose dolphin (Tursiops truncatus): The effects of noise level and duration*, 125 THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA 1816-26 (2009); T. Aran Mooney, et al., *Sonar-induced temporary hearing loss in dolphins*, 5 BIOLOGY LETTERS 565-67 (2009).



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 28 of 99

physical injury, which occurs due to damage to the sound receptors in the animal's ears.<sup>158</sup> Factors that contribute to the onset of PTS include exposure to single very intense sound, fast rise time from baseline to peak pressure, and repetitive exposure to intense sounds that individually cause TTS.<sup>159</sup> Exposure to sounds that cause TTS can induce physiological and structural changes in the inner ear, which becomes non-recoverable; TTS can therefore grade into PTS.<sup>160</sup> PTS can cause either partial or total deafness, or impair the ability to hear certain frequencies.<sup>161</sup>

Seismic airgun surveys are extremely disruptive activity that can harm marine mammals in the Atlantic Ocean. Oil and gas exploration will expose marine mammals to high levels of noise. Seismic airgun blasts can emit sounds louder than 200 dB (e.g., up to at least 272 dB of sound) into the ocean.<sup>162</sup> When these decibel levels are compared to the 2016 Acoustic Guidance chart below, marine mammals are indeed at risk of PTS from G&G surveying in the Atlantic. As the background noise in the Atlantic habitats increase with seismic airgun surveying, these animals will struggle to hear the sounds they need to find mates, keep track of young, and find food. Worse yet, seismic airgun surveys can potentially deafen marine mammals. Because marine mammals, such as dolphins and whales, depend heavily on sound to survive in the ocean, disruptions in hearing – whether temporary (TTS) or permanent (PTS) – can lead to serious injury and possibly death. As logic dictates, if a whale's hearing is compromised, its survival is threatened.<sup>163</sup>

### ii. Impacts from G&G Survey Ships and Gear on Marine Mammals

In addition to potentially deafening sounds, the presence of additional ships in the Atlantic for G&G surveying may cause serious injury to marine mammals. G&G surveys typically use at least two vessels: the larger source vessel that tows the airgun array and the smaller chase vessel. TGS proposes to use two seismic source vessels, at least two chase vessels, and possibly one support vessel (i.e., a total of five vessels).<sup>164</sup> Spectrum and ION each proposed using one seismic source vessel and one chase vessel (i.e., a total of two vessels each).<sup>165</sup> WesternGeco plans to use one seismic source vessel, two chase vessels, and one support vessel (i.e., a total of four vessels).<sup>166</sup> CGG plans to use one seismic source vessel, two chase vessels and one support

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<sup>158</sup> Richardson and Moulton, *Appendix C* at 29.

<sup>159</sup> *Id.* at 30.

<sup>160</sup> *Id.* at 29-30.

<sup>161</sup> *Id.*

<sup>162</sup> Spectrum IHA Application at 3 (noting decibel ranges of between 243-272 dB); ION IHA Application at 5 (noting decibel ranges of between 254-264 dB).

<sup>163</sup> At a minimum, impacts from seismic airgun noise on whales include displacement, chronic stress, avoidance, communication masking, and vocalization changes. Jonathan Gordon, et al., *A Review of the Effects of Seismic Surveys on Marine Mammals*, 37 MAR. TECHNOL. SOC. J. 16-34 (Winter 2004). The potential harm of human-made noise, including noise from seismic airgun blasting, is real and can impact the survival of whales at both individual and population levels. See, e.g., Fisheries Service, *North Atlantic Right Whales (Eubalaena glacialis)*, <http://www.nmfs.noaa.gov/pr/species/mammals/whales/north-atlantic-right-whale.html> (last updated July 20, 2017); Hannah B. Blair, et al., *Evidence for ship noise impacts on humpback whale foraging behavior*, 12 BIOLOGY LETTERS 1, 1-5 (2016).

<sup>164</sup> TGS IHA Application at 5-6 (up to 5 vessels).

<sup>165</sup> Spectrum IHA Application at 3 (2 vessels); ION IHA Application at 2 (2 vessels).

<sup>166</sup> WesternGeco IHA Application at 5 (4 vessels).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 29 of 99

vessel (i.e., a total of four vessels).<sup>167</sup> IHA applicants have proposed towing arrays of seismic airguns that range from 24 to 48 airguns.<sup>168</sup> In addition, several of the IHA applicants plan to use at least one hydrophone streamer per seismic source vessel to record the refracted and reflected acoustic signals generated by the seismic airguns.<sup>169</sup> If the five IHA applicants are allowed to conduct seismic surveys at the same time, it would mean a total of 17 vessels, with up to 176 seismic airguns, and at least five hydrophone streamers of approximately 10 -12 km in length – all in the Atlantic at the same time.

Ship strikes and entanglement in gear both cause serious injury to marine mammals in the Atlantic, and often lead to death. In the *Large Whale Ship Strike Database*, the Fisheries Service found that out of 292 reported whale ship strikes, 48 (16.4%) resulted in injury, and 198 (68.0%) were fatal.<sup>170</sup> Based on the Fisheries Service interpretation of “serious injury,” ship strikes constitute “serious injury” since over 50% of the cases reported resulted in mortality.<sup>171</sup> From 2010 to 2015, 85% of right whale deaths were caused by entanglement, predominantly by fishing gear.<sup>172</sup> Thus, under the Fisheries Service’s own definition, entanglements can also constitute a “serious injury.” And, BOEM recently recognized that there is a “risk of entanglement any time gear, particularly lines and cables, is put in the water.”<sup>173</sup>

### *North Atlantic right whale:*

With a current estimated population of only 440 remaining animals, the North Atlantic right whale is listed as “endangered” pursuant to the Endangered Species Act and considered “depleted” pursuant to the MMPA.<sup>174</sup> The North Atlantic right whale is called the urban whale because this species lives off the coast of some of the busiest port cities in the Atlantic. Collisions between whales and ships are most common along the East Coast.<sup>175</sup> North Atlantic right whales congregate seasonally in the coastal waters of the Southeast, which overlaps with much of the proposed seismic survey area.<sup>176</sup> The proposed seismic survey area spans from

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<sup>167</sup> CGG IHA Application at 11-12 (4 vessels)

<sup>168</sup> TGS IHA Application at 6 (48 airguns); ION IHA Application at 4 (36 airguns); Spectrum IHA Application at 3 (32 airguns); WesternGeco IHA Application at 6 (24 airguns); CGG IHA Application at 13 (36 airguns).

<sup>169</sup> See, e.g., TGS IHA Application at 1 (one 12 km long hydrophone streamer per seismic source vessel); WesternGeco IHA Application at 5 (one 10.5 km long hydrophone streamer to be towed from the seismic source vessel) CGG IHA Application at 12 (one hydrophone streamer approximately 10 km to 12 km in length to be towed from the seismic source vessel);

<sup>170</sup> Fisheries Service, *Large Whale Ship Strike Database 3* (2004),

<http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/lwssdata.pdf>.

<sup>171</sup> Fisheries Service, *Policy Directive PD 02-028: Process for Distinguishing Serious from Non-Serious Injury of Marine Mammals 2* (2012), [http://www.nmfs.noaa.gov/pr/pdfs/serious\\_injury\\_policy.pdf](http://www.nmfs.noaa.gov/pr/pdfs/serious_injury_policy.pdf).

<sup>172</sup> New England Aquarium, *Endangered Right Whale Population Threatened by Entanglements and Dramatically Declining Birth Rate*, SCIENCE DAILY (Sept. 1, 2016),

<https://www.sciencedaily.com/releases/2016/09/160901092829.htm>.

<sup>173</sup> Gulf Draft Programmatic EIS at 4-74.

<sup>174</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 12 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf) (“The minimum population size is 440. The maximum productivity rate is 0.04, the default value for cetaceans. PBR for the Western Atlantic stock of the North Atlantic right whale is 1.”); 82 Fed. Reg. 26,244, 26,269 at Table 4.

<sup>175</sup> Fisheries Service, *Large Whale Ship Strike Database 3* (2004),

<http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/lwssdata.pdf>.

<sup>176</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 8 (Feb. 2017),

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 30 of 99

Delaware to Florida, through much of the right whale critical habitat. The Fisheries Service designated critical habitat to protect the feeding grounds in the Gulf of Maine, and the calving grounds in the southeast from North Carolina to Florida.<sup>177</sup> For the five IHA applications, if the IHAs are granted, as many as 17 vessels would be actively conducting G&G surveying throughout the right whales' southern range, a portion of which is designated as critical habitat.<sup>178</sup>

North Atlantic right whales are particularly susceptible to injury and death from ship strikes. Because of their low abundance, the "threat of ship strikes is proportionally greater" to right whales than to other species.<sup>179</sup> Ship strikes are one of "the greatest threat[s] to the persistence of North Atlantic right whales."<sup>180</sup> From 1999 to 2006, ships struck 22 right whales and killed 13 in the Atlantic.<sup>181</sup> From 2006 to 2010, 13 right whales were struck by vessels; five were killed and one was seriously injured.<sup>182</sup> Right whales are especially susceptible to ship strikes because they are buoyant, slow swimmers, and appear to either be unable to detect approaching vessels, or ignore the visual or acoustic cues of approaching vessels when engaged in feeding, nursing, or mating.<sup>183</sup> According to the Fisheries Service's 2013 Programmatic Biological Opinion, because of these characteristics and the high density of ship traffic off the eastern seaboard, "ship strikes seem almost inevitable."<sup>184</sup>

Entanglement in fishing gear also poses a serious threat to North Atlantic right whales, and some scientists consider entanglement as more serious now than ship strikes.<sup>185</sup> From 1970 to 2009, 35% of right whales died from entanglements.<sup>186</sup> From 2010 to 2015, entanglements caused 85% of right whale deaths.<sup>187</sup> In the Atlantic from 2006 to 2010, there were 33 reports of right whales entangled in fishing gear; five right whales were injured and four died.<sup>188</sup> New research about the

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[https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf)

<sup>177</sup> Designated Critical Habitat; Northern Right Whale, 59 Fed. Reg. 28,793 (June 3, 1994) (designating critical habitat for the northern right whale, which included waters adjacent to the coasts of Georgia and the east coast of Florida); Endangered and Threatened Species; Critical Habitat for Endangered North Atlantic Right Whale, 81 Fed. Reg. 4,838, 4,838 (to be codified 50 C.F.R. § 226) (Jan. 27, 2016),

<https://www.greateratlantic.fisheries.noaa.gov/regs/2016/January/16narwchfinalrule.pdf> (expanding critical habitat areas previously designated in 1994 in the southern Atlantic).

<sup>178</sup> TGS IHA Application at 5-6 (up to 5 vessels); WesternGeco IHA Application at 5 (4 vessels); Spectrum IHA Application at 3 (2 vessels); ION IHA Application at 2 (2 vessels).

<sup>179</sup> Fisheries Service, *Large Whale Ship Strike Database 5* (2004),

<http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/lwssdata.pdf>.

<sup>180</sup> Fisheries Service 2013 Programmatic Biological Opinion at 91.

<sup>181</sup> *Id.* at 156.

<sup>182</sup> *Id.* at 91.

<sup>183</sup> *Id.* at 158.

<sup>184</sup> *Id.*

<sup>185</sup> *Id.* at 91; New England Aquarium, *Endangered Right Whale Population Threatened by Entanglements and Dramatically Declining Birth Rate*, SCIENCE DAILY (Sept. 1, 2016),

<https://www.sciencedaily.com/releases/2016/09/160901092829.htm>.

<sup>186</sup> New England Aquarium, *Endangered Right Whale Population Threatened by Entanglements and Dramatically Declining Birth Rate*, SCIENCE DAILY (Sept. 1, 2016),

<https://www.sciencedaily.com/releases/2016/09/160901092829.htm>.

<sup>187</sup> *Id.*

<sup>188</sup> Fisheries Service 2013 Programmatic Biological Opinion at 91.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 31 of 99

North Atlantic right whale shows that the species is even more vulnerable than previously thought. Not only may their population growth rate be decreasing once again, but entanglement may have a more significant impact on long-term effects on survival and reproduction than currently predicted.<sup>189</sup> North Atlantic right whales migrate through the fishing ground of the U.S. Atlantic seaboard, risking entanglement in fishing gear, and if seismic airgun arrays are present, then entanglement in this gear is possible as well.<sup>190</sup> Indeed, in a 2012 study, the annual percentage of right whales seen with rope on the body increased significantly, which can impact their ability to survive and reproduce.<sup>191</sup>

A recent scientific paper published in August 2016, reports that the North Atlantic right whale population has decreased, probably as a result of human-caused deaths combined with reduced calving rates.<sup>192</sup> And, deaths and serious injuries from gear entanglements are higher than mandated by the United States and Canada, leaving the population vulnerable to additional stressors such as seismic airgun noise, a fear echoed by scientists in a letter sent to President Obama in April 2016.<sup>193</sup>

In September 2016, two right whales were found dead off the coast of Maine – one of which was found to have died following prolonged and chronic stress brought on by entanglement in gear that was tangled around its head, mouth, flippers and body.<sup>194</sup> A team from the Centre for Coastal Studies found a third right whale entangled in gear and managed to free the individual.<sup>195</sup> Since March 2017, nine North Atlantic right whales have been discovered dead (1 in Cape Cod Bay in April<sup>196</sup> and 8 in Canada in June and July).<sup>197</sup> Preliminary findings following necropsy of three of the right whales indicate vessel collisions and entanglement may be the potential causes

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<sup>189</sup> North Atlantic Right Whale Consortium, *North Atlantic Whale Consortium 2015 Annual Report Card 2* (Nov. 2015), [www.narwc.org/pdf/2015%20Report%20Card.pdf](http://www.narwc.org/pdf/2015%20Report%20Card.pdf); Letter from Scott Kraus et al. to the National Marine Fisheries Service Office of Protected Resources (Feb. 26, 2016); Letter from Atlantic Scientific Review Group to Eileen Sobock, Assistant Administrator for Fisheries, National Marine Fisheries Service (April 4, 2016).

<sup>190</sup> Gulf Draft Programmatic EIS at 4-74.

<sup>191</sup> Amy R. Knowlton, et al., *Monitoring North Atlantic right whale Eubalaena glacialis entanglement rates: A 30-yr retrospective*, 466 MAR. ECOL. PROG. SER., 293-302 (2012).

<sup>192</sup> Scott D. Kraus, et al., *Recent Scientific Publications Cast Doubt on North Atlantic Right Whale Future*, 3 FRONTIERS IN MARINE SCIENCE 1 (Aug. 17, 2016).

<sup>193</sup> Letter from Christopher Clark, et. al. to President Barack Obama (April 14, 2016), [http://usa.oceana.org/sites/default/files/662/statement\\_seismic\\_and\\_north\\_atlantic\\_right\\_whales\\_14\\_april\\_2016.pdf](http://usa.oceana.org/sites/default/files/662/statement_seismic_and_north_atlantic_right_whales_14_april_2016.pdf).

<sup>194</sup> Connell Smith, *Deaths of 2 right whales in 2 days alarms scientist*, CBC NEWS (Sept. 27, 2016), <http://www.cbc.ca/news/canada/new-brunswick/dead-right-whales-alarm-scientists-1.3781261>.

<sup>195</sup> *Id.*

<sup>196</sup> NOAA Fisheries, *Young Right Whale Found Dead in Cape Cod Bay, Boaters Urged to Be Cautious* (April 13, 2017), [https://www.greateratlanticfisheries.noaa.gov/mediacenter/2017/04/13\\_rightwhalecalfapril2017.html](https://www.greateratlanticfisheries.noaa.gov/mediacenter/2017/04/13_rightwhalecalfapril2017.html).

<sup>197</sup> Ashifa Kassam, *Seven right whales found dead in 'devastating' blow to endangered animal*, THE GUARDIAN (July 8, 2017), <https://www.theguardian.com/environment/2017/jul/08/right-whales-dead-canada-endangered-species>; Elizabeth Fraser, *8<sup>th</sup> right whale found dead in Gulf of St. Lawrence, 1 more entangled*, CBC NEWS (July 20, 2017), <http://www.cbc.ca/news/canada/new-brunswick/right-whale-dead-gulf-st-lawrence-1.4213660>.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 32 of 99

of these deaths.<sup>198</sup> Every animal counts with populations this small. Worse yet, at least two of the right whales were females, which is devastating for the species.<sup>199</sup>

While the potential biological removal level for North Atlantic right whales has been calculated as one when the population was 440, the calculated potential biological removal level would be even further reduced as a result of the loss of 9 individuals since March 2017.<sup>200</sup> Any mortality or serious injury for this stock is significant.<sup>201</sup> As a strategic stock with average annual human-related mortality and serious injury exceeding the potential biological removal level, the North Atlantic right whale is indeed worthy of its title as a “depleted” and “endangered” species.<sup>202</sup> A precautionary approach is necessary to prevent sound, ship strikes and entanglements, including from G&G surveying, from further decimating this species.

### f. New Science and Other Developments

#### i. New Science on Cetacean Distribution in the Atlantic

In early 2016, scientists from the Marine Geospatial Ecology Laboratory at Duke University published a paper modeling habitat-based cetacean density. They drew from 23 years of data to map the annual density of bottlenose dolphins, and endangered fin, humpback and sperm whales.<sup>203</sup>

NOAA’s “*CetMap*” is a mapping tool that draws heavily from Duke University’s cetacean density results to provides cetacean density and distribution maps that are time-, region- and species-specific.<sup>204</sup> Both stock assessment reports and *CetMap* are used to estimate the number of takes in response to G&G survey technologies; however, the latter is the most up-to-date methodology. *CetMap* can be used to predict take levels for a specific species at a certain time in a certain region. In contrast, stock assessment reports estimate, but do not predict, the number of takes for a certain species within the geographical area specified for the species.

#### 1. Stock Assessment Reports (“SAR”)

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<sup>198</sup> Ashifa Kassam, *Seven right whales found dead in ‘devastating’ blow to endangered animal*, THE GUARDIAN (July 8, 2017), <https://www.theguardian.com/environment/2017/jul/08/right-whales-dead-canada-endangered-species>; Elizabeth Fraser, *8<sup>th</sup> right whale found dead in Gulf of St. Lawrence, 1 more entangled* (July 20, 2017), <http://www.cbc.ca/news/canada/new-brunswick/right-whale-dead-gulf-st-lawrence-1.4213660>.

<sup>199</sup> Jordan Gill, *Unprecedented event: 6 North Atlantic right whales found dead in June*, CBC News (June 24, 2017), <http://www.cbc.ca/news/canada/new-brunswick/six-dead-right-whales-1.4176832>.

<sup>200</sup> The potential biological removal level for the North Atlantic right whale is likely closer to .86 (440 - 9 x .02 x .1).

<sup>201</sup> Fisheries Service, *NOAA Technical Memorandum NMFS-NE-241: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016* at Table 1 (June 2017).

<sup>202</sup> *Id.* at 20.

<sup>203</sup> Jason J. Roberts et al., *Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico*, 6 SCIENTIFIC REPORTS 1, 5–7 (2016).

<sup>204</sup> NOAA, *What is CetMap?*, <http://cetsound.noaa.gov/cda-index> (last visited Nov. 16, 2016).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 33 of 99

Stock assessment reports are compiled by the Fisheries Service to estimate take levels.<sup>205</sup> As required by the MMPA, stock assessment reports for “strategic stocks” of marine mammals in waters under U.S. jurisdiction are reviewed annually by the Fisheries Service.<sup>206</sup> The stock assessment reports for non-strategic stocks are reviewed every three years or when new information is released. The Fisheries Service updates stock assessment reports to include new data that are available. Each stock assessment report includes: an overview of the stock’s geographic range; a “minimum population estimate;” present population trends; present and maximum net productivity rates; potential biological removal levels, the status of the stock; estimates of annual human-caused mortality and serious injury from the source; and overview of other variables that could negatively impact the recovery of “strategic stocks.”<sup>207</sup> As noted above, “potential biological removal level” is defined under the MMPA as “the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.”<sup>208</sup>

Stock assessment reports are prepared using data analyzed and interpreted by the marine mammal research programs at Fisheries Science Centers and other scientists. These research programs could include aerial or shipboard surveys to count marine mammals at sea. Marine mammals spend only part of their lives at the ocean’s surface, so any visual survey will capture and account for only a relatively small percentage of the population. Furthermore, animals will not be able to be counted at night or in poor weather conditions. The exact type of information required for a stock assessment report is only generally described by the MMPA. One example is that the stock assessment reports require the “minimum population estimate,” which means that scientists have *reasonable* assurance that there are at least this estimated number of marine mammals in the population.<sup>209</sup>

### 2. *CetMap*

*CetMap* is used to identify “known areas of importance for cetaceans,” such as areas important for reproduction, feeding, and migration and areas important for small or resident populations.<sup>210</sup>

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<sup>205</sup> Fisheries Service, *Marine Mammal Stock Assessment Reports (SARs) by Species/Stock*, <http://www.nmfs.noaa.gov/pr/sars/species.htm> (last updated June 27, 2017).

<sup>206</sup> 16 U.S.C. §1386(c).

<sup>207</sup> Under the MMPA, the Fisheries Service is required to prepare stock assessments based on the best scientific information available for each marine mammal species in U.S. waters, incorporating a number of elements including: (1) geographic range; (2) minimum population estimate, current and maximum net productivity rates and current population trends; (3) annual human-caused mortality and serious injury; (4) commercial fishery interactions; (5) categorization as strategic stock (as appropriate); and (6) potential biological removal level. 16 U.S.C. § 1386(a)(1)-(6). *See also* Fisheries Service, *Marine Mammal Stock Assessments*, <http://www.nmfs.noaa.gov/pr/sars/> (last updated June 20, 2017).

<sup>208</sup> 16 U.S.C. § 1362(20). The Fisheries Service must evaluate several factors to determine the “potential biological removal level”: (1) the minimum population estimate of the stock; (2) one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size; and (3) a recovery factor of between 0.1 and 1.0. *Id.*

<sup>209</sup> Fisheries Service, *Marine Mammal Stock Assessments*, <http://www.nmfs.noaa.gov/pr/sars/> (last updated June 20, 2017) (emphasis added).

<sup>210</sup> NOAA, *What is CetMap?*, <http://cetsound.noaa.gov/cda-index> (last visited Nov. 16, 2016).

*CetMap* is important because it creates maps of cetacean density and distribution that are time-, region-, and species-specific. The information created by *CetMap* is the type of data necessary for the G&G survey permits as it creates a useable and convenient data package. Another strength of *CetMap* is that it uses predictive environmental factors in addition to the survey data previously used to estimate takes.

**ii. New Oceana Maps Based on New Scientific Data Show G&G Surveys Would Occur in Areas of Highest Marine Mammal Density**

In August 2016, Oceana released animated maps based on *CetMap* data, showing that dolphins and whales are threatened by proposed G&G surveys in the Atlantic Ocean.<sup>211</sup> The maps are based on the new research from Duke University's Marine Geospatial Ecology Lab,<sup>212</sup> which, as noted above, was also used to create *CetMap*. Twenty-three years of data provides visibility as to the density of bottlenose dolphins, and endangered fin, humpback and sperm whales overlaid with the current seismic airgun permit application area, over the course of a year (i.e., a map for each of the twelve months). Oceana's maps show the density of fin, humpback and sperm whales or of dolphins per 100 square kilometers. The proposed G&G survey area is also indicated on the map. Oceana's maps clearly show the overlap between the proposed G&G survey area and the areas of highest marine mammal density. Thus, if G&G surveying is carried out as proposed in the Atlantic, high numbers of dolphins and endangered whales will be exposed to seismic airgun noise.

In addition to accessing the animated maps on Oceana's website,<sup>213</sup> static maps for each month of the year for both dolphins and whales are included as attachments.<sup>214</sup> Drawing from models released by Duke University's Marine Geospatial Ecology Lab earlier this year, these maps display the predicted average whale and dolphin population density (number of individuals per 100 km<sup>2</sup>) over twelve months. Areas in red, orange, and yellow have the highest densities of dolphins or whales, and areas of green and blue have lower densities. The maps demonstrate a large overlap between the zone proposed for seismic airgun surveying, shaded in gray, and areas where high numbers of dolphins or whales are predicted to be throughout the year. As an example, Oceana's map for the month of November showing bottlenose dolphin density in the proposed seismic airgun blast zone is included below.

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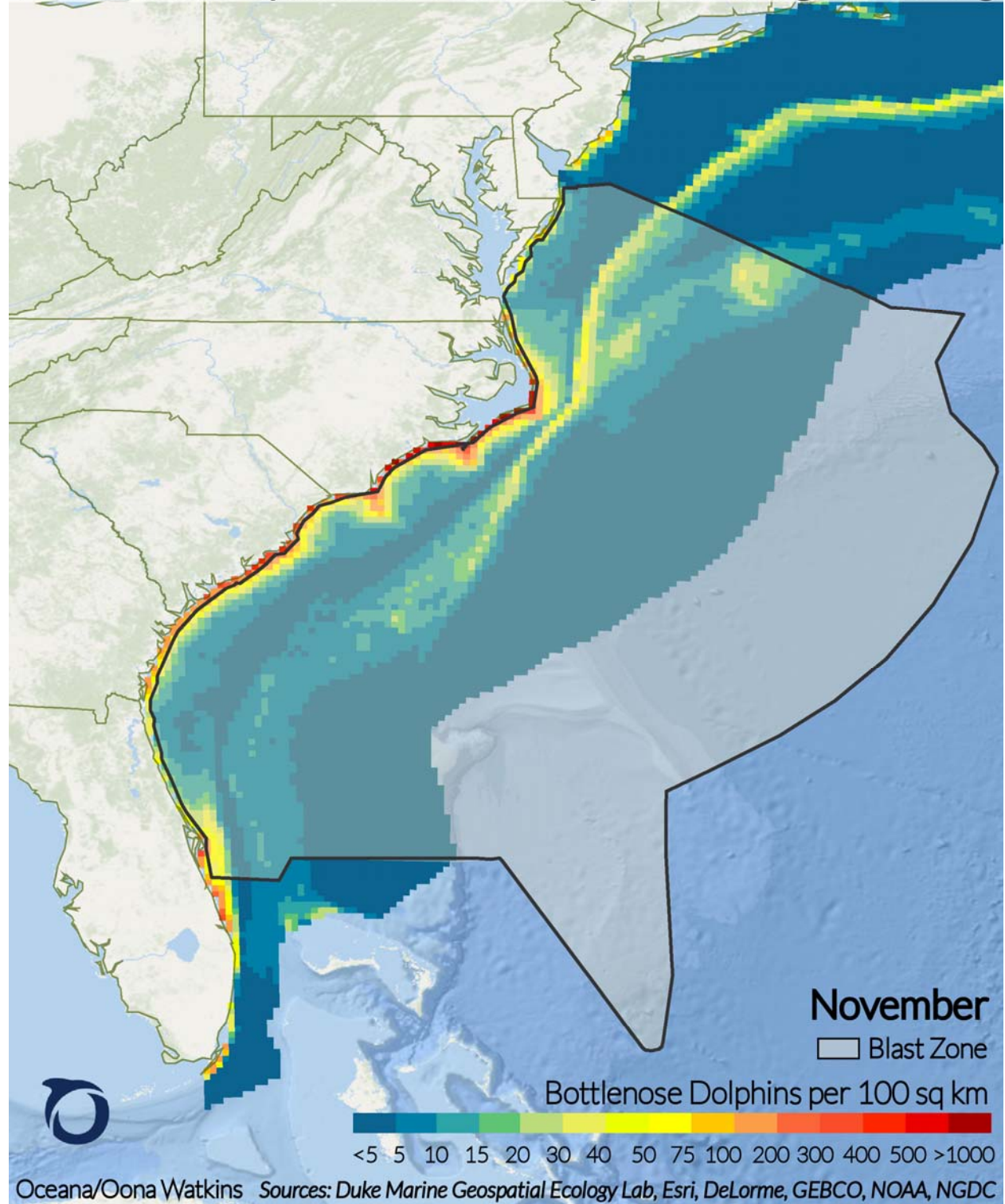
<sup>211</sup> Oceana, *Animated Maps Show Dolphins and Whales Threatened by Seismic Airgun Blasting in Atlantic Ocean* (Aug. 24, 2016), [http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?\\_ga=1.43826533.191812998.1462817124](http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?_ga=1.43826533.191812998.1462817124).

<sup>212</sup> Jason J. Roberts et al., *Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico*, 6 SCIENTIFIC REPORTS 1 (2016).

<sup>213</sup> Oceana, *Animated Maps Show Dolphins and Whales Threatened by Seismic Airgun Blasting in Atlantic Ocean* (Aug. 24, 2016), [http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?\\_ga=1.43826533.191812998.1462817124](http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?_ga=1.43826533.191812998.1462817124).

<sup>214</sup> In addition to the online animated version, individual Oceana maps for each month will be provided under separate cover to comment letter recipients.

## Bottlenose Dolphins Threatened by Seismic Airgun Blasting



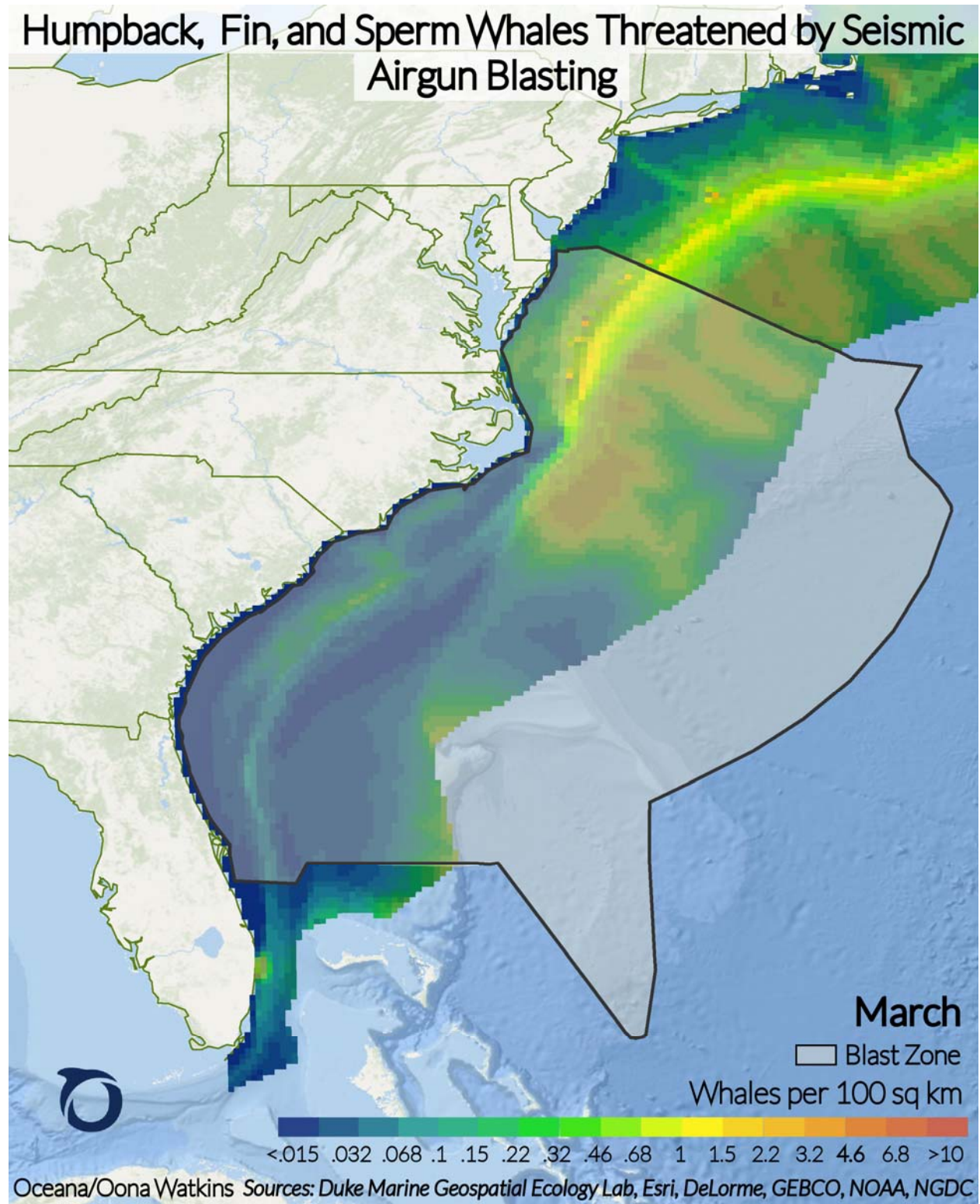


# Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 36 of 99

And, a recent map of humpback, fin and sperm whales density in the proposed seismic airgun blast zone follows:



### **iii. NOAA's Ocean Noise Strategy Roadmap**

In September 2016, NOAA released the final version of its Ocean Noise Strategy Roadmap (“Roadmap”), which outlines important policy recommendations about the effects of sound on marine mammals, especially the gaps in scientific data needed to fully predict the impact of noise on marine life.<sup>215</sup> The Roadmap recognizes the need for the Fisheries Service, including representatives from the National Marine Fisheries Science centers, National Marine Sanctuaries, and National Ocean Service, as well as federal partners to fill shared critical scientific knowledge gaps and build an understanding of noise impacts on protected species and acoustic habitats.<sup>216</sup> The scientific knowledge gaps for marine mammals include the fact that most studies about the hearing and temporary threshold shifts for marine mammals have been determined by measuring the response of a small number of captive, trained animals from a small number of odontocetes and pinniped species.<sup>217</sup> Research on the impacts of noise on each species that is being managed would be helpful to fill scientific gaps. During the comment period for the Draft Roadmap in July 2016, Oceana noted that the agency must not only finalize but also put the Roadmap into effect *before* making any determinations related to ocean noise. Thus, no decision on whether to grant IHAs for the use of G&G survey technologies to conduct oil and gas exploration in the Atlantic should be made until the Roadmap is fully implemented.<sup>218</sup>

### **iv. July 2016 Acoustic Guidance (Currently Under Review)**

The Fisheries Service applied the 2016 Acoustic Guidance in its analysis of the proposed IHAs.<sup>219</sup> The 2016 Acoustic Guidance, however, is currently subject to review and revision. As noted in our comment letter on the 2016 Acoustic Guidance, it would be reckless for the agency to proceed with IHAs while this technical guidance is under review. The Fisheries Service should deny the proposed IHAs and complete its review of the 2016 Acoustic Guidance, consistent with our comments, before proceeding with decision-making any IHAs involving sound in the ocean.<sup>220</sup>

In addition, to fully evaluate how marine mammals will respond to sound exposure, including sounds produced from G&G survey technologies, updated acoustic guidance for Level B behavioral effects is crucial. The Fisheries Service should deny the proposed IHAs and make any determinations about pending IHA applications for Atlantic G&G surveys until new guidance for Level B behavioral effects is developed and in effect.

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<sup>215</sup> NOAA, *Ocean Noise Strategy Roadmap* (Sept. 2016), [http://cetsound.noaa.gov/Assets/cetsound/documents/Roadmap/ONS\\_Roadmap\\_Final\\_Complete.pdf](http://cetsound.noaa.gov/Assets/cetsound/documents/Roadmap/ONS_Roadmap_Final_Complete.pdf).

<sup>216</sup> *See, e.g., id.* at 1, 7, 22, 24, 56, 61.

<sup>217</sup> *Id.*; Dorian S. Houser & Patrick W. Moore, REPORT ON THE CURRENT STATUS AND FUTURE OF UNDERWATER HEARING RESEARCH (Robert Burkard et al. eds., 2014).

<sup>218</sup> Oceana, *Comment Letter re Draft Ocean Noise Strategy Roadmap* (July 1, 2016) (on file with Oceana).

<sup>219</sup> *See* 82 Fed. Reg. 26,244 at 26,253, 26,254, 26,255, 26,282, Table 6, 26,292, 26,300 (June 6, 2017).

<sup>220</sup> Comments on NMFS's Technical Guidance on Auditory Impacts on Marine Mammals (July 17, 2017) (on file with Oceana).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 38 of 99

In July 2016, NOAA released its updated Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts (“2016 Acoustic Guidance”).<sup>221</sup> The document provides guidance for determining the effects of underwater human-made noise on marine mammal species managed by the Fisheries Service.<sup>222</sup> The 2016 Acoustic Guidance summarizes the Fisheries Service’s updated acoustic thresholds, the development of the thresholds and how they will be updated.<sup>223</sup> According to the Fisheries Service, the 2016 Acoustic Guidance is based on the compilation, interpretation, and synthesis of the best available information on the effects of human sound on marine mammal hearing.<sup>224</sup> The 2016 Acoustic Guidance determines the received levels, called acoustic thresholds, at which individual marine mammals are predicted to feel changes in their hearing sensitivity for acute, incidental exposure to human noise sources underwater.<sup>225</sup> The guidance focuses exclusively on hearing effects of underwater noise on marine mammals and whether such noises may cause temporary or permanent hearing loss.

According to the 2016 Acoustic Guidance, a TTS occurs when a marine mammal experiences hearing sensitivity reduction within a particular frequency range for a period of minutes to hours but then recovers its prior level of sensitivity.<sup>226</sup> A PTS is a loss of hearing within a particular frequency range, which is not reversible.<sup>227</sup>

The old, generic acoustic thresholds developed in the late 1990s assessed only the onset of PTS of auditory impacts for cetaceans (RMS SPL 180 dB) and pinnipeds (RMS SPL 190 dB).<sup>228</sup> The 2016 Acoustic Guidance states:

This is the first time NMFS has presented this information in a single, comprehensive document, which can be used by NMFS analysts/managers and other relevant action proponents/stakeholders, including other federal agencies, when seeking to determine whether and how their activities are expected to result in auditory impacts to marine mammals via acoustic exposure.<sup>229</sup>

As even the Fisheries Service concedes, however, it is not possible to compare the acoustic thresholds in the new guidance with the older acoustic guidance: “Given the specific nature of these updates, it is not possible to generally or directly compare the updated acoustic thresholds presented in this document with the thresholds they will replace because outcomes will depend on project-specific specifications.”<sup>230</sup> The 2016 Acoustic Guidance recognizes that there are many factors, including cumulative factors, that influence how a marine mammal will react to

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<sup>221</sup> 2016 Acoustic Guidance.

<sup>222</sup> *Id.* at 1.

<sup>223</sup> *Id.* at 6.

<sup>224</sup> Fisheries Service, *NOAA’s Marine Mammal Acoustic Technical Guidance*, <http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm> (last updated May 30, 2017).

<sup>225</sup> *Id.*

<sup>226</sup> 2016 Acoustic Guidance at 154 (July 2016).

<sup>227</sup> *Id.* at 153.

<sup>228</sup> *Id.* at 7.

<sup>229</sup> *Id.*

<sup>230</sup> *Id.* at 1.

# Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 39 of 99

that particular situation. These factors include sound source characteristics, environmental factors that influence sound propagation, anticipated marine mammal occurrence and behavior near activity, as well as activity-specific factors.<sup>231</sup>

According to the 2016 Acoustic Guidance, PTS occurs for marine mammals at the decibel levels delineated in the table below.<sup>232</sup>

| Hearing Group                          | PTS Onset Acoustic Thresholds*<br>(Received Level)          |                                    |
|----------------------------------------|-------------------------------------------------------------|------------------------------------|
|                                        | Impulsive                                                   | Non-impulsive                      |
| Low-Frequency (LF)<br>Cetaceans        | Cell 1<br>$L_{pk,flat}$ : 219 dB<br>$L_{E,LF,24h}$ : 183 dB | Cell 2<br>$L_{E,LF,24h}$ : 199 dB  |
| Mid-Frequency (MF)<br>Cetaceans        | Cell 3<br>$L_{pk,flat}$ : 230 dB<br>$L_{E,MF,24h}$ : 185 dB | Cell 4<br>$L_{E,MF,24h}$ : 198 dB  |
| High-Frequency (HF)<br>Cetaceans       | Cell 5<br>$L_{pk,flat}$ : 202 dB<br>$L_{E,HF,24h}$ : 155 dB | Cell 6<br>$L_{E,HF,24h}$ : 173 dB  |
| Phocid Pinnipeds (PW)<br>(Underwater)  | Cell 7<br>$L_{pk,flat}$ : 218 dB<br>$L_{E,PW,24h}$ : 185 dB | Cell 8<br>$L_{E,PW,24h}$ : 201 dB  |
| Otariid Pinnipeds (OW)<br>(Underwater) | Cell 9<br>$L_{pk,flat}$ : 232 dB<br>$L_{E,OW,24h}$ : 203 dB | Cell 10<br>$L_{E,OW,24h}$ : 219 dB |

\* Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.

Note: Peak sound pressure ( $L_{pk}$ ) has a reference value of 1  $\mu$ Pa, and cumulative sound exposure level ( $L_E$ ) has a reference value of 1  $\mu$ Pa<sup>2</sup>s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript “flat” is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (i.e., varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Source: 2016 Acoustic Guidance at Table 4.

Low frequency cetaceans are the baleen whales; mid-frequency cetaceans are dolphins, toothed whales, beaked whales, and bottlenose whales; and high-frequency cetaceans are true porpoises and pygmy and dwarf sperm whales (*Kogia* sp.).<sup>233</sup> Seismic airgun blasts are considered “impulsive” sounds.<sup>234</sup> Seismic airgun blasts can emit sounds louder than 200 dB (e.g., up to at

<sup>231</sup> *Id.* at 8.

<sup>232</sup> *Id.* at 26.

<sup>233</sup> *Id.* at 12.

<sup>234</sup> *Id.* at 1.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 40 of 99

least 272 dB of sound) into the ocean.<sup>235</sup> When these decibel levels are compared to the 2016 Acoustic Guidance chart above, marine mammals are indeed at risk of PTS from G&G surveying in the Atlantic.

As aptly recognized in the 2016 Acoustic Guidance, “[t]hese updated PTS acoustic thresholds do not represent the entirety of a comprehensive analysis of the effects of a proposed action, but rather serve as one tool (along with, e.g., behavioral impact thresholds, auditory masking assessments, evaluations to help understand the ultimate effects of any particular type of impact on an individual’s fitness, population assessments, etc.) to help evaluate the effects of a proposed action and make the relevant findings required by various statutes.”<sup>236</sup>

The 2016 Acoustic Guidance focuses on hearing effects and does not assess behavioral effects of the type that generally occur with Level B harassment of marine mammals, i.e., “any act of pursuit, torment, or annoyance which . . . has the potential to disturb a marine mammal or marine mammal stock in the wild . . . .”<sup>237</sup> Level B harassment can cause “disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.”<sup>238</sup> The Fisheries Service states that “[d]ue to the complexity and variability of marine mammal behavioral responses, [the Fisheries Service] will continue to work over the next years on developing additional guidance regarding the effects of anthropogenic sound on marine mammal behavior.”<sup>239</sup> The 1990s era acoustic guidance is still used to evaluate Level B behavioral effects. The criteria for Level B harassment remain 160 dB for impulsive sounds, such as seismic airgun surveying, and 120 dB for non-impulsive sounds.<sup>240</sup> But, this criteria is significantly outdated and no longer incorporates the best scientific evidence available.

Thus, while the 2016 Acoustic Guidance is a step in the right direction, there is much room for improvement in this Level A guidance, as noted in our comment letter.<sup>241</sup> Moreover, the 2016 Acoustic Guidance alone is insufficient to fully evaluate sound produced from G&G survey technologies on marine mammals.<sup>242</sup> Updated acoustic guidance for Level B takes is essential to incorporate “best scientific evidence available” in the review of IHAs involving sound in the ocean, especially seismic airgun surveys.

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<sup>235</sup> Spectrum IHA Application at 3 (noting decibel ranges of between 243-272 dB); ION IHA Application at 5 (noting decibel ranges of between 254-264 dB).

<sup>236</sup> *Id.* at 1-2.

<sup>237</sup> 16 U.S.C. § 1362(18)(D) (stating that “the term ‘Level B harassment’ means harassment described in subparagraph (A)(ii) . . . .”) *id.* § 1362(18)(A)(ii).

<sup>238</sup> 2016 Acoustic Guidance at 1-2.

<sup>239</sup> Fisheries Service, *NOAA’s Marine Mammal Acoustic Technical Guidance*, <http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm> (last updated May 30, 2017).

<sup>240</sup> Fisheries Service – West Coast Region, *Interim Sound Threshold Guidance*, [http://www.westcoast.fisheries.noaa.gov/protected\\_species/marine\\_mammals/threshold\\_guidance.html](http://www.westcoast.fisheries.noaa.gov/protected_species/marine_mammals/threshold_guidance.html) (last visited Nov. 16, 2016).

<sup>241</sup> Comments on NMFS’s Technical Guidance on Auditory Impacts on Marine Mammals (July 17, 2017) (on file with Oceana).

<sup>242</sup> 2016 Acoustic Guidance at 8.

**v. New Science on the Cumulative Impacts of Stressors on Marine Mammals**

As of October 2016, the Committee on the Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals within the National Academy of Sciences, Engineering and Medicine issued a final report titled “Assessment of the Cumulative Effects of Stressors on Marine Mammals.”<sup>243</sup> The Committee and this work were led by Dr. Peter L. Tyack from the University of Saint Andrews, one of the leading researchers in the world studying the impacts of noise on marine life.<sup>244</sup> The purpose of the study was to increase understanding of the population-level effects of human noise in the oceans on marine mammals.<sup>245</sup> In particular, the report focuses on sound and other stressors that have cumulative effects on marine mammals and recognizes that “[i]f cumulative effects cannot be accounted for, then unexpected adverse impacts from interactions between stressors pose a risk to marine mammal populations and the marine ecosystems on which people and marine mammals depend.”<sup>246</sup> The report includes a conceptual framework for assessing the consequences of multiple stressors on marine mammal populations and explores a variety of methods to estimate health, stressor exposure and marine mammal response to stressors.<sup>247</sup> The work is intended to “help direct the development of methods to identify when cumulative effects pose a risk of driving a marine mammal population or ecosystem into an adverse state.”<sup>248</sup> Several recommendations are made in the report, including:

- “Additional research will be necessary to establish the probabilistic relationships between exposure to sound, contextual factors, and severity of response.”<sup>249</sup>
- “Uncertainties about animal densities, sound propagation, and effects should be translated into uncertainty on take estimates . . . .”<sup>250</sup>
- “Agencies charged with monitoring and managing the effects of human activities on marine mammals should identify baselines and document exposures to stressors for high priority populations.”<sup>251</sup>

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<sup>243</sup> Committee on the Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals, *Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals*, THE NATIONAL ACADEMIES PRESS (2016).

<sup>244</sup> *Id.* at v; see also University of St. Andrews, Peter Lloyd Tyack, [https://risweb.st-andrews.ac.uk/portal/en/persons/peter-lloyd-tyack\(6fef907-a94d-4a78-9ba9-4999ab4fb5d7\).html](https://risweb.st-andrews.ac.uk/portal/en/persons/peter-lloyd-tyack(6fef907-a94d-4a78-9ba9-4999ab4fb5d7).html) (last visited Nov. 1, 2016).

<sup>245</sup> National Academies of Sciences, Engineering, and Medicine Current Projects System, *Project Title: Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals*, <https://www8.nationalacademies.org/cp/projectview.aspx?key=49715> (last visited Sept. 29, 2016).

<sup>246</sup> Committee on the Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals, *Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals* vii, THE NATIONAL ACADEMIES PRESS (2016).

<sup>247</sup> *Id.*

<sup>248</sup> *Id.* at viii.

<sup>249</sup> *Id.* at 46.

<sup>250</sup> *Id.*

<sup>251</sup> *Id.* at 147.

The work provides helpful insights on the potential impact of seismic survey noise on all marine mammals. In particular, the report states:

It is now recognized that intense sounds from human activities such as seismic air guns can have direct physiological effects on marine mammals and naval sonar triggers behavioral reactions that can lead to death by stranding. However, non-lethal behavioral disturbance is the most common effect of anthropogenic noise on marine mammals. Rather subtle behavioral changes experienced by many marine mammals may have greater population consequences than occasional lethal events.<sup>252</sup>

Another recent study suggests that offshore seismic surveying activities increased the number of long-finned pilot whales that strand.<sup>253</sup> And, researchers have also found that the mitigation strategy of minimizing marine mammal harassment by increasing seismic airgun noise levels gradually and hoping animals move away as the sound increases can have negative consequences. If animals are displaced during “ramp up” mitigation procedures, there is the possibility of increased stress and lower success feeding, which could affect survival and reproduction. Additionally, animals could be pushed into areas where they are at a higher risk of bycatch or harassment from military or industrial activities. This research suggests that the effects of displacement on marine mammal overall health and survival should be taken into account when mitigation methods for seismic airgun surveys are being considered.<sup>254</sup>

The Fisheries Service absolutely should consider an article from 2015, which provides a compilation of peer-reviewed research showing that seismic noise has negative impacts, “including habitat displacement, disruption of biologically important behaviors, masking of communication signals, chronic stress, and potential auditory damage.”<sup>255</sup> The article provides examples of research that shows that seismic airgun noise negatively impacts many species, including whales and fish (Table 1). Furthermore, the article suggests that seismic surveys impact temporal and geographic scales that are larger than usually evaluated in environmental assessments and that seismic airgun surveys could have “acute, cumulative, and chronic effects on marine mammals.”<sup>256</sup>

Marine mammals are already exposed to a number of anthropogenic stressors – chemical pollution, marine debris, introduced pathogens, changes in temperature or pH induced by climate change – as well as natural stressors – predators, pathogens, parasites, and

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<sup>252</sup> *Id.* at 15.

<sup>253</sup> Ryan McGeadey et al., *The Effects of Seismic Surveying and Environmental Variables on Deep Diving Odontocete Stranding Rates Along Ireland’s Coast*, 27 PROCEEDINGS OF MEETINGS ON ACOUSTICS 1 (2016).

<sup>254</sup> Karin Forney et al., *Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity*, 32 ENDANG. SPECIES RES. 391, 391 (May 8, 2017).

<sup>255</sup> Douglas P. Nowacek et al., *Marine Seismic Surveys and Ocean Noise: Time for Coordinated and Prudent Planning*, 13 FRONTIERS IN ECOLOGY AND THE ENVIRONMENT 378 (2015).

<sup>256</sup> *Id.*

reduced availability of prey. The effects of noise are one of many components that must be considered by federal agencies to assess “cumulative effects” on marine mammals as required under U.S. laws such as NEPA.<sup>257</sup> The report recognizes that while “noise has been considered to have cumulative effects when an animal is exposed to multiple noise sources such as shipping plus seismic,” a broader range of stressors must be evaluated to comply with the requirements of U.S. law.<sup>258</sup>

**vi. New Science on the Impacts of Seismic Surveys on Marine Life Other than Marine Mammals**

In keeping with the requirement to use “best scientific evidence available,” the Fisheries Service must closely review and consider the results of any new scientific studies regarding the effects of seismic airgun surveys on marine life, especially endangered species in the Atlantic and/or the ecosystems on which they rely. For example, a new study shows that seismic airgun surveys negatively impacts zooplankton, which form the base of global marine ecosystems.<sup>259</sup> The Fisheries Service should also consider another recent study about the effect of seismic surveys on marine turtles and the need to take a precautionary approach to mitigate impacts.<sup>260</sup> The Fisheries Service must also review a recent study, which found that during seismic surveying, reef-fish abundance declined by 78 percent.<sup>261</sup>

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<sup>257</sup> Committee on the Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals, *Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals* 15–16, THE NATIONAL ACADEMIES PRESS (2016).

<sup>258</sup> *Id.* at 15; *see also id.* at Appendix B – Relevant Law and Regulations.

<sup>259</sup> Robert McCauley et al., *Widely used marine seismic survey air gun operations negatively impact zooplankton*, NATURE ECOLOGY & EVOLUTION (June 22, 2017) (stating that “all larval krill were killed after air gun passage”); Elizabeth Ouzts, *Advocates: New study bolsters case for Trump to reverse course on offshore oil exploration*, SOUTHEASTERN ENERGY NEWS, <http://southeastenergynews.com/2017/06/28/advocates-new-study-bolsters-case-for-trump-to-reverse-course-on-offshore-oil-exploration/> (June 28, 2017) (noting that NOAA spokesperson, Jennie Lyons, encouraged comment on seismic surveys, including the study on zooplankton).

<sup>260</sup> Sarah Nelms et al., *Seismic surveys and marine turtles: An underestimated global threat?*, 193 BIOLOGICAL CONSERVATION 49 (2016).

<sup>261</sup> Avery Paxton et al., *Seismic survey noise disrupted fish use of a temperate reef*, 78 MARINE POLICY 68, 71 (2017).



### **III. LEGAL BACKGROUND**

#### **a. Marine Mammal Protection Act (“MMPA”)**

The MMPA was adopted over thirty years ago with the goal of protecting and promoting the growth of marine mammal populations “to the greatest extent feasible commensurate with sound policies of resource management” in order to “maintain the health and stability of the marine ecosystem.”<sup>262</sup> To protect marine mammals from human activities, the MMPA establishes a moratorium on the “take” of marine mammals.<sup>263</sup> The MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>264</sup> In limited circumstances, the Fisheries Service, the agency responsible for protecting most marine mammal species,<sup>265</sup> may grant exceptions to the take moratorium, such as for the incidental, but not intentional, taking of marine mammals for certain activities, which is done via an incidental take authorization.<sup>266</sup>

The Fisheries Service can only grant an incidental take authorization if the take request is for “small numbers of marine mammals of a species or stock” and will have only “negligible impact.”<sup>267</sup> The “small numbers” and “negligible impact” determinations are legally separate and distinct requirements of the MMPA.<sup>268</sup>

“Small numbers” is defined in the MMPA regulations as “a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock.”<sup>269</sup> Courts interpreting the statutory “small numbers” requirement have found that the Fisheries Service’s regulatory definition of “small numbers” disregards Congress’ intent and cannot be relied upon as it conflates “small numbers” and “negligible impact.”<sup>270</sup> In addition, when determining the meaning of the “small numbers” requirement in the MMPA, courts have tended to view a “take”

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<sup>262</sup> 16 U.S.C. § 1361(6).

<sup>263</sup> 16 U.S.C. §§ 1361(2), 1371.

<sup>264</sup> 16 U.S.C. § 1362(13).

<sup>265</sup> The Fish and Wildlife Service, within the Department of the Interior, is responsible for dugongs, manatees, polar bears, sea otters and walruses. See U.S. Fish and Wildlife Service, *Marine Mammals*, <https://www.fws.gov/international/animals/marine-mammals.html> (last visited Nov. 11, 2016).

<sup>266</sup> 16 U.S.C. § 1371(a); Fisheries Service, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental/> (last updated Sept. 2, 2016) (listing oil and gas exploration as an activity for which incidental take authorizations have been issued).

<sup>267</sup> 16 U.S.C. § 1371(a)(5)(A), (D).

<sup>268</sup> *NRDC v. Evans*, 364 F.Supp.2d 1083, 1102 (N.D. Cal. 2003).

<sup>269</sup> 50 C.F.R. § 216.103.

<sup>270</sup> *Ctr. For Biological Diversity v. Salazar*, 695 F.3d 893, 902–07 (9th Cir. 2012); *NRDC v. Evans*, 232 F. Supp.2d 1003, 1024–27 (N.D. Cal 2002). The U.S. Fish and Wildlife Service, responsible for granting IHAs for the marine mammals that the Fisheries Service does not have responsibility for, likewise has disregarded the regulatory definition as incorrect in its incidental take authorization decision-making process. See *Marine Mammals; Incidental Take During Specified Activities; Proposed Incidental Harassment Authorization for Pacific Walruses in Alaska and Associated Federal Waters*, 81 Fed. Reg. 40,902, 40,903 (June 23, 2016) (“[W]e do not rely on that [small numbers] definition here, as it conflates the terms ‘small numbers’ and ‘negligible impact,’ which we recognize as two separate and distinct requirements.”).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 45 of 99

greater than 12 percent as not meeting the “small numbers” requirement.<sup>271</sup> One court found that “a definition of small numbers that permits the potential taking of as much as 12 percent of the population of a species is *plainly* against Congress’ intent.”<sup>272</sup>

In addition to “small numbers,” the Fisheries Service must determine that there will be a “negligible impact” on the species or stock at the population level.<sup>273</sup> “Negligible impact” is defined in the MMPA regulations as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.”<sup>274</sup> The “negligible impact” standard concerns the type of harm caused by a take as compared to the extent of the take in the “small numbers” determination. In other words, while “small numbers” relates to the amount of marine mammal take as compared to the whole of the species or stock, “negligible impact” is “qualitative” and “involves harm to reproduction and survival.”<sup>275</sup> For small populations, a non-negligible impact is “harm to a few or even one member [that] can harm the population as a whole.”<sup>276</sup> “Potential biological removal level” is defined under the MMPA as “the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.”<sup>277</sup> In the context of a “negligible impact” analysis, the Fisheries Service must ensure that potential biological removal levels are not exceeded.<sup>278</sup> The “negligible impact” requirement prevents the Fisheries Service from authorizing the taking of even small numbers of a population

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<sup>271</sup> See *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); see also *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015*, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an environmental organization’s claim that 43% of a population would be taken pursuant to an IHA, violating the “small numbers” requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>272</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (emphasis added).

<sup>273</sup> *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1134 (9th Cir. 2016) (noting the required element of “negligible impact” on marine mammal populations).

<sup>274</sup> 50 C.F.R. § 216.103.

<sup>275</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1033 (N.D. Cal. 2002).

<sup>276</sup> *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 988 (N.D. Cal. 2014).

<sup>277</sup> 16 U.S.C. § 1362(20). The Fisheries Service must evaluate several factors to determine the “potential biological removal level”: (1) the minimum population estimate of the stock; (2) one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size; and (3) a recovery factor of between 0.1 and 1.0. *Id.*

<sup>278</sup> *Conservation Council for Haw. v. Nat’l Marine Fisheries Serv.*, 97 F. Supp. 3d 1210, 1228–29 (D. Haw. 2015) (noting the Fisheries Service’s past reliance on potential biological removal in the context of a “negligible impact” finding under 16 U.S.C. § 1371(a)(5)(A) and holding that a failure to make such an analysis violates the Fisheries Service’s requirement to use best available scientific evidence).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 46 of 99

if that taking might have more than a negligible impact. These two requirements work in tandem to ensure that *individuals*, as well as *populations*, of marine mammals are protected.<sup>279</sup>

Additionally, the Fisheries Service, when granting an incidental take authorization, must require mitigation measures that achieve “the least practicable impact on such [marine mammal] species or stock and its habitat.”<sup>280</sup> As a court recently clarified, the Fisheries Service cannot conflate the “least practicable adverse impact” with the required “negligible impact” finding.<sup>281</sup> To authorize an incidental take, the Fisheries Service must meet the “least practicable adverse impact” standard *in addition to* a finding of “negligible impact.”<sup>282</sup> And, “adaptive management” cannot substitute for specific mitigation measures.<sup>283</sup>

The MMPA was the first congressional act to include a “best available science” mandate.<sup>284</sup> The statute requires use of “best scientific evidence available” in determining any waiver of the moratorium on the taking and importation of marine mammals and marine mammal products.<sup>285</sup> MMPA implementing regulations require the agency to use the “best scientific information available.”<sup>286</sup> The Fisheries Service must therefore comply with the “best available science” mandate in analyzing whether or not to authorize incidental takes.

There are two types of incidental take authorizations: Letters of Authorization (“LOAs”) and Incidental Harassment Authorizations (“IHAs”).<sup>287</sup> The Fisheries Service may issue an LOA for (1) harassment that takes place for between more than one year, but less than five years, (2) a harassment that leads to “serious injury,” or (3) a harassment that leads to mortality.<sup>288</sup> The Fisheries Service’s 2012 Policy Directive defines “serious injury” as “any injury that is ‘more likely than not’ to result in mortality, or any injury that presents a greater than 50 percent chance of death to a marine mammal.”<sup>289</sup> When the Fisheries Service has data on outcomes of various injuries, injuries that are “known to result in mortality in more than 50 percent of documented cases are considered serious injuries.”<sup>290</sup> The definition of “serious injury” does not require that

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<sup>279</sup> 16 U.S.C. § 1362(18)(A) (defining “harassment” to apply to acts that affect both “a marine mammal” and a “marine mammal stock in the wild”).

<sup>280</sup> 16 U.S.C. § 1371(a)(5)(D)(ii)(I) (for IHAs); 16 U.S.C. § 1371(a)(5)(A)(i)(II)(aa) (for LOAs).

<sup>281</sup> *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1142 (9th Cir. 2016).

<sup>282</sup> *Id.* (emphasis in original)

<sup>283</sup> *Id.*

<sup>284</sup> 16 U.S.C. §§ 1361 et seq. (mandating the use of “best scientific evidence” as well as the “best scientific information available” in several provisions, including the moratorium provision at 16 U.S.C. § 1371).

<sup>285</sup> 16 U.S.C. § 1371(a)(3)(A).

<sup>286</sup> 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 216.105(c) (“[R]egulations will be established based on the best available information.”).

<sup>287</sup> 16 U.S.C. § 1371(a)(5)(A) (for LOA); 16 U.S.C. § 1371(a)(5)(D) (for IHA); *see also* Fisheries Service, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental/> (last updated Sept. 2, 2016).

<sup>288</sup> 16 U.S.C. § 1371(a)(5)(D) (for LOA); *see also* Fisheries Service, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental/> (last updated Sept. 2, 2016). Serious injury” is “any injury that will likely result in a mortality.” 50 C.F.R. § 216.3; *see also* Fisheries Service, *Protected Resources Glossary*, <http://www.nmfs.noaa.gov/pr/glossary.htm> (last updated May 7, 2014).

<sup>289</sup> Fisheries Service, *Policy Directive PD 02-028: Process for Distinguishing Serious from Non-Serious Injury of Marine Mammals 2* (2012), [http://www.nmfs.noaa.gov/pr/pdfs/serious\\_injury\\_policy.pdf](http://www.nmfs.noaa.gov/pr/pdfs/serious_injury_policy.pdf).

<sup>290</sup> *Id.* at 2.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 47 of 99

an injured marine mammal die, “but rather requires only that the animal is more likely than not to die.”<sup>291</sup> Specifically, “serious injuries can include cases where an animal initially survives, but later dies or is expected to die as a consequence of the injury.”<sup>292</sup> If the activity causes serious injury or mortality, an LOA is required.<sup>293</sup>

An IHA is limited to one year. The action authorized may only have the potential to result in “harassment”<sup>294</sup>; therefore, an IHA cannot be issued if an action leads to “serious injury” or mortality of a marine mammal; instead, an LOA is required. The MMPA classifies IHAs into two categories by the level of “harassment”: Level A harassment and Level B harassment. Level A harassment is “any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild.”<sup>295</sup> Level B harassment is “any act of pursuit, torment, or annoyance which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.”<sup>296</sup> In short, both Level A and Level B harassment can cause “disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering,”<sup>297</sup> but if the harassment “has the potential to injure a marine mammal or marine mammal stock in the wild,”<sup>298</sup> the harassment becomes a Level A harassment.

As legislative history demonstrates, the MMPA embodies the precautionary principle:

In the teeth of this lack of knowledge of certain causes, and of the certain knowledge that these animals are almost all threatened in some way, it seems elementary common sense to the Committee that legislation should be adopted to require that we act conservatively -- that no steps should be taken regarding these animals that might prove to be adverse or even irreversible in their effects until more is known. As far as could be done, we have endeavored to build such a conservative bias into the legislation here presented.<sup>299</sup>

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<sup>291</sup> *Id.* at 2.

<sup>292</sup> *Id.* at 2.

<sup>293</sup> 16 U.S.C. § 1371(a)(5)(D); *see also* Fisheries Service, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental/> (last updated Sept. 2, 2016).

<sup>294</sup> 16 U.S.C. § 1371(a)(5)(D); *see also* Fisheries Service, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental/incidental/> (last updated Sept. 2, 2016).

<sup>295</sup> 16 U.S.C. § 1362(18)(C) (stating that “the term ‘Level A harassment’ means harassment described in subparagraph (A)(i) . . . .”) *id.* § 1362(18)(A)(i).

<sup>296</sup> 16 U.S.C. § 1362(18)(D) (stating that “the term ‘Level B harassment’ means harassment described in subparagraph A(ii) . . . .”); *id.* § 1362(18)(A)(ii).

<sup>297</sup> *Id.*

<sup>298</sup> 16 U.S.C. § 1362(18)(C) (stating that “the term ‘Level A harassment’ means harassment described in subparagraph (A)(i) . . . .”) *id.* § 1362(18)(A)(i).

<sup>299</sup> H.R. Rep. No. 92-707, 1972 U.S.C.C.A.N. 4144, 4148 (Dec. 4, 1971); *see also Kanoa Inc. v. Clinton*, 1 F. Supp. 2d 1088, 1093 (D. Haw. 1998) (noting that the MMPA was enacted to ensure the protection and conservation of marine mammals).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 48 of 99

As such, “the Act was deliberately designed to permit takings of marine mammals only when it was *known* that that taking would not be to the disadvantage of the species.”<sup>300</sup>

Before issuing any permit for the taking of a marine mammal, the Secretary must first have it proven to his satisfaction that *any* taking is consistent with the purposes and policies of the act -- that is to say, that taking will not be to the disadvantage of the animals concerned. *If he cannot make that finding, he cannot issue a permit. It is that simple.*<sup>301</sup>

In short, “[t]he interest of the marine mammals come first under the statutory scheme, and the interests of the industry, important as they are, must be served only *after* protection of the animals is assured.”<sup>302</sup>

### b. National Environmental Policy Act (“NEPA”)

Under NEPA, federal agencies must conduct an environmental review of major federal actions when their impacts to the human environment are “significant.”<sup>303</sup> Significance is a function of both context and intensity.<sup>304</sup> Federal agencies must analyze the significance of the action in several contexts (e.g., society as a whole, the affected region, the affected interests, and the locality), and consider the severity of the impacts to determine intensity.<sup>305</sup> The intensity of the impact refers to its severity, and the regulations define ten factors for agencies to consider when they evaluate intensity,<sup>306</sup> including:

- the degree to which the effects on the quality of the human environment are likely to be highly controversial;<sup>307</sup>
- the degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration;<sup>308</sup>

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<sup>300</sup> *Committee for Humane Legislation, Inc. v. Richardson*, 540 F.2d 1141, 1150 (D.C. Cir. 1976) (emphasis in original).

<sup>301</sup> *Committee for Humane Legislation, Inc. v. Richardson*, 414 F. Supp. 297, 310 (D.D.C. 1976), *aff'd* 540 F.2d 1141, 1148 (1976) (citing 118 Cong. Rec. 7686 (1972)) (emphasis added).

<sup>302</sup> *Committee for Humane Legislation, Inc. v. Richardson*, 414 F. Supp. 297, 309 (D.D.C. 1976), *aff'd* 540 F.2d 1141, 1148 (1976) (emphasis added); *see also Kokechik Fishermen’s Ass’n v. Sec’y Commerce*, 839 F.2d 795, 802 (D.C. Cir. 1988).

<sup>303</sup> 42 U.S.C. § 4332(2)(C) (noting the requirement of federal agencies to draft detailed environmental impact statements for “proposals for legislation and other major Federal actions significantly affecting the quality of the environment”).

<sup>304</sup> 40 C.F.R. § 1508.27.

<sup>305</sup> 40 C.F.R. § 1508.27(a)–(b).

<sup>306</sup> 40 C.F.R. § 1508.27(b)(1)–(10).

<sup>307</sup> 40 C.F.R. § 1508.27(b)(4).

<sup>308</sup> 40 C.F.R. § 1508.27(b)(6).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 49 of 99

- whether the action is related to other actions with individually insignificant but cumulatively significant impacts;<sup>309</sup>
- the degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973,<sup>310</sup> and
- whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.<sup>311</sup>

When impacts are significant, agencies must develop an EIS analyzing the impacts of the project on the environment, as well as alternatives. In the EIS, the agency must disclose any adverse environmental effects that cannot be avoided and any irreversible and irretrievable commitments of resources that would be involved.<sup>312</sup>

When the agency does not know whether the impacts of the proposed action are significant, CEQ regulations direct the agency to prepare an Environmental Assessment (“EA”).<sup>313</sup> The EA is meant to be a “concise public document” that the agency uses to determine whether to prepare an EIS, or issue a finding of no significant impact (“FONSI”).<sup>314</sup> If the agency determines from the EA that there will be no significant impacts, then the agency issues a FONSI and proceeds with the action.<sup>315</sup> However, if the agency determines that the impacts of the proposed action will be significant, they must develop a full EIS analyzing the impacts and alternatives.

Programmatic EIS “assess the environmental impacts of proposed policies, plans, programs, or projects” that will be implemented based on later “NEPA reviews tiered to the programmatic review.”<sup>316</sup> Tiering can occur when the agency covers “general matters in broader environmental impact statements . . . with subsequent narrower statements or analyses . . . incorporating by reference the general discussion and concentrating solely on the issues specific to the [subsequent] statement.”<sup>317</sup> Tiering is appropriate from a program, plan or policy environmental impact statement to a site-specific statement or analysis.<sup>318</sup> A subsequent site-specific

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<sup>309</sup> 40 C.F.R. § 1508.27(b)(7). “Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” *Id.*

<sup>310</sup> 40 C.F.R. § 1508.27(b)(9).

<sup>311</sup> 40 C.F.R. § 1508.27(b)(10).

<sup>312</sup> 42 U.S.C. § 4332(2)(C).

<sup>313</sup> 40 C.F.R. § 1501.4(c) (“In determining whether to prepare an environmental impact statement the federal agency shall: . . . (c) Based on the environmental assessment make its determination whether to prepare an environmental impact statement”); *id.* § 1508.9.

<sup>314</sup> 40 C.F.R. § 1508.9; *id.* § 1508.13.

<sup>315</sup> 40 C.F.R. § 1501.4(e).

<sup>316</sup> Michael Boots, *Memorandum for Heads of Federal Departments and Agencies, Effective Use of Programmatic NEPA Reviews* (Dec. 18, 2014) (on file with Oceana).

<sup>317</sup> 40 C.F.R. § 1508.28.

<sup>318</sup> 40 C.F.R. § 1508.28(a).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 50 of 99

environmental impact statement is needed if the programmatic EIS does not adequately cover the environmental effects of the site-specific action.<sup>319</sup>

Federal agencies have continuing obligations pursuant to NEPA and must take a “hard look” at the environmental effects of planned actions even after a proposal has received initial approval.<sup>320</sup> Federal agencies also have an ongoing duty to obtain high-quality information, accurate scientific analysis, and “full and fair discussion” of direct and indirect environmental impacts.<sup>321</sup> Even after an EIS has been finalized, if “[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns” or “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” an EIS “shall” be supplemented.<sup>322</sup>

In August 2016, CEQ published guidance for federal agencies on how they should consider climate change in their NEPA review process.<sup>323</sup> Agencies have been instructed to consider the impacts their actions will have on climate change, as well as how climate change will affect federal projects.<sup>324</sup> To determine the project’s impact on climate change, agencies are supposed to use the direct and indirect projected greenhouse gas emissions as a proxy to assess effects on climate change.<sup>325</sup> Agencies should consider actions that have a close causal relationship to the proposed action when assessing effects,<sup>326</sup> including analysis of the reasonably foreseeable effects of the various phases of large-scale projects, like resource extraction and development.<sup>327</sup> While this guidance was rescinded in Executive Order 13783,<sup>328</sup> the guidance provides a useful way for agencies like the Fisheries Service to analyze the impacts of climate change, as is still required under NEPA.<sup>329</sup> “Environmental impact statements need to consider climate change and greenhouse gases in their environmental analysis.”<sup>330</sup>

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<sup>319</sup> See, e.g., *Blue Mts. Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214 (9th Cir. 1998) (holding that “[n]othing in the tiering regulations suggests that the existence of a programmatic EIS . . . obviates the need for any future project-specific EIS”); *Pac. Coast Fed’n. of Fishermen’s Ass’n v. United States DOI*, 929 F. Supp. 2d 1039, 1059 (E.D. Cal. 2013) (finding that a programmatic EIS did not preclude the need for site-specific evaluation of effects of renewal of irrigation).

<sup>320</sup> *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989).

<sup>321</sup> 40 C.F.R. §§ 1500.1(b), 1502.1, 1502.16(a),(b); *Friends of Clearwater v. Dombeck*, 222 F.3d 552, 557 (9th Cir. 2000) (explaining that “an agency that has prepared an EIS . . . must be alert to new information that may alter the results of its original environmental analysis”).

<sup>322</sup> 40 C.F.R. §1502.9(c)(1)(i),(ii); *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989)

<sup>323</sup> Christina Goldfuss, *Memorandum for Heads of Federal Departments and Agencies: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016), (on file with Oceana).

<sup>324</sup> *Id.* at 9.

<sup>325</sup> *Id.* at 11.

<sup>326</sup> *Id.* at 13.

<sup>327</sup> *Id.* at 14.

<sup>328</sup> Exec. Order No. 13,783 of Mar. 28, 2017, 82 Fed. Reg. 16,093, 16,094 (Mar. 31, 2017).

<sup>329</sup> See *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008) (overturning a rule establishing Corporate Fuel Economy Standards, and holding that the NHTSA violated NEPA by failing to consider the impact of the rule on greenhouse gas emissions).

<sup>330</sup> DANIEL R. MANDELKER, ET. AL, *NEPA LAW AND LITIGATION* 757 (2016 ed.)

**c. Endangered Species Act**

The Endangered Species Act “requires all Federal departments and agencies to use all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Endangered Species Act are no longer necessary.”<sup>331</sup> Section 7(a)(1) of the Endangered Species Act mandates that “[a]ll other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species . . .”<sup>332</sup> Section 7(a)(2) “requires each federal agency to consult with either the Fisheries Service or the Federal Wildlife Service (FWS) to ensure that “any action authorized, funded, or carried out” by the agency is “not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of critical habitat.<sup>333</sup> Whether the consultation required be formal or informal “depends on whether an endangered species may be present in the area affected by the agency action . . .” and if that action might affect the species.<sup>334</sup>

A formal consultation and biological opinion are required when a federal agency determines that a proposed action may affect listed species or critical habitat.<sup>335</sup> These mandates also apply to proposed agency actions for which a permit or license is required.<sup>336</sup> During the formal consultation, the FWS or the Fisheries Service is required to, among other things:

- (1) “Formulate a biological opinion as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat;”<sup>337</sup>
- (2) “Use ‘the best scientific and commercial data available’ in formulating the biological opinion . . . ;”<sup>338</sup> and
- (3) “Formulate a statement concerning ‘incidental take’ if such take may occur.”<sup>339</sup>

A biological opinion (BiOp) must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>340</sup> Among other things, the biological opinion must include the Service’s opinion on whether the

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<sup>331</sup> *Audubon Soc’y of Portland v. Nat’l Marine Fisheries Serv.*, 849 F. Supp. 2d 1017, 1019 (D. Or. 2011).

<sup>332</sup> 16 U.S.C. § 1536(a)(1).

<sup>333</sup> 16 U.S.C. § 1536(a)(2).

<sup>334</sup> 16 U.S.C. § 1536(a)(3).

<sup>335</sup> 50 C.F.R. § 402.14.

<sup>336</sup> 50 C.F.R. § 402.02.

<sup>337</sup> 50 C.F.R. § 402.14(g)(4).

<sup>338</sup> 50 C.F.R. § 402.14(g)(8).

<sup>339</sup> 50 C.F.R. § 402.14(g)(7).

<sup>340</sup> 50 C.F.R. § 402.14(g)(8), (h)(2).



action is likely or is not likely to jeopardize the endangered species' existence or its critical habitat.<sup>341</sup>

A “jeopardy” BiOp “is warranted when agency actions are likely to jeopardize an entire listed species or an entire critical habitat,”<sup>342</sup> and must include “reasonable and prudent alternatives,” if any exist.<sup>343</sup> “Jeopardize” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”<sup>344</sup> When developing its jeopardy determination, “the consulting agency evaluates the current status of the listed species or critical habitat, the effects of the action, and cumulative effects.”<sup>345</sup>

#### **d. Magnuson-Stevens Act**

The Magnuson-Stevens Act requires the Fisheries Service to consult with relevant staff within the agency regarding any adverse effects seismic airgun surveys may have on essential fish habitat.<sup>346</sup>

#### **e. Coastal Zone Management Act**

In keeping with the Coastal Zone Management Act, federal agencies undertaking any development project in the coastal zone of a state must “insure that the project is, to the maximum extent practicable, consistent with the enforceable policies of approved State management programs”<sup>347</sup>

#### **f. National Marine Sanctuaries Act**

Under the National Marine Sanctuaries Act, “it is unlawful for any person to – destroy, cause the loss of, or injure any sanctuary resources managed under law or regulations for that sanctuary.”<sup>348</sup>

#### **g. Administrative Procedures Act (“APA”)**

In an effort to ensure public participation in the informal rulemaking process, pursuant to the APA, agencies are required to provide the public with adequate notice of a proposed rule

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<sup>341</sup> 50 C.F.R. § 402.14(h)(3).

<sup>342</sup> *Audubon Soc’y of Portland v. Nat’l Marine Fisheries Serv.*, 849 F. Supp. 2d 1017, 1021 (D. Or. 2011).

<sup>343</sup> 50 C.F.R. § 402.14(h)(3).

<sup>344</sup> 50 C.F.R. § 402.2; see also *Defenders of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1101 (E.D. Wash. 2006).

<sup>345</sup> *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 481 F.3d 1224, 1230 (9th Cir. 2007) (citing 50 C.F.R. §402.14(g)(2)–(3)) (internal quotations omitted).

<sup>346</sup> 16 U.S.C. § 1855(b)(2) (stating that “[e]ach Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or *proposed to be authorized*, funding, or undertaken by such agency that may adversely affect any essential fish habitat identified under this Act.”) (emphasis added).

<sup>347</sup> 16 U.S.C. § 1456(c)(2), (3)(a).

<sup>348</sup> 16 U.S.C. § 1436(1).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 53 of 99

followed by a meaningful opportunity to comment on the rule's content.<sup>349</sup> And, “[matters] of great importance, or those where the public submission of facts will be either useful to the agency or a protection to the public, should naturally be accorded more elaborate public procedures.”<sup>350</sup> In reviewing an agency rulemaking, “courts have focused on whether the agency provided an ‘adequate’ opportunity to comment—of which the length of the comment period represents only one factor for consideration.”<sup>351</sup>

The APA delineates the standard of judicial review courts use to determine the validity of agency actions. A reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions found to be –

- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
- (B) contrary to constitutional right, power, privilege, or immunity;
- (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
- (D) without observance of procedure required by law;
- (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
- (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court. In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.”<sup>352</sup>

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<sup>349</sup> 5 U.S.C. § 553 (b)–(c).

<sup>350</sup> Todd Garvey, Cong. Research Serv., R41546, A Brief Overview of Rulemaking and Judicial Review 2 (2017).

<sup>351</sup> *Id.* (stating that “Executive Order 12866, which provides for presidential review of agency rulemaking via the Office of Management and Budget’s Office of Information and Regulatory Affairs, states that the public’s opportunity to comment, “in most cases should include a comment period of not less than 60 days.” Exec. Order No. 12866, § 6(a), 58 Fed. Reg. 51735 (Oct. 4, 1993).”).

<sup>352</sup> 5 U.S.C. § 706(2).

## **DISCUSSION**

The Fisheries Service must deny the IHA applications for the following reasons:

- Under the MMPA, the Fisheries Service must deny the IHA applications because they do not meet the statutory elements of “small numbers” or “negligible impact”;
- Under the MMPA, the Fisheries Service must use best scientific evidence available in its analysis and must require applicants to incorporate best scientific evidence available in the IHA applications; however, the IHA applications do not rely on best scientific evidence available and therefore must be rejected;
- As “injury” or “mortality” to marine mammals from both sound and ship strikes is a real possibility acknowledged in BOEM’s 2014 Atlantic Final Programmatic EIS and the Fisheries Service’s 2013 Programmatic Biological Opinion, the Fisheries Service must deny the IHAs and require each G&G survey company to apply for an LOA rather than an IHA;

In the event the Fisheries Service does not deny the five IHA applications (and it should), Oceana urges the agency to comply with NEPA, the Endangered Species Act, the Magnuson-Stevens Act, the Coastal Zone Management Act, the National Marine Sanctuaries Act, and the APA.

### **I. Marine Mammal Protect Act (“MMPA”)**

#### **a. The Fisheries Service Violates the MMPA, NEPA and the APA by Arbitrarily Choosing 30 Percent of a Stock Abundance Estimate to be a “Small Number.”**

In the Federal Register notice for the five proposed IHAs, the Fisheries Service arbitrarily chose 30 percent of a stock abundance estimate as a “small number”<sup>353</sup> No scientific basis or rationale is provided to support the selection of 30 percent, which is completely contrary to the requirement that the agency use “best scientific evidence available” in its analysis. Moreover, 30 percent is utterly contrary to legal precedent. Federal courts, when determining the meaning of the “small numbers” requirement, have *never* found an IHA that requested a percentage of take greater than 12 to be a “small number.”<sup>354</sup> One court found that an IHA “that permits the

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<sup>353</sup> 82 Fed. Reg. 26,244, 26,295, 26,307 (June 6, 2017).

<sup>354</sup> See *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); see also *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015*, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an

potential taking of as much as 12 percent of the population of a species is *plainly* against Congress' intent."<sup>355</sup> For this reason alone, the Fisheries Service's selection of 30 percent as a "small number" violates not only the MMPA for failure to follow legal precedent and the basic tenants of "best scientific evidence available," but also NEPA and the APA, and, for that matter, common sense. If each of the five IHA applicants is allowed to take up to 30 percent of a marine mammal stock abundance estimate, the cumulative impacts are staggering.

**b. Under the MMPA, the Fisheries Service Must Deny the IHA Applications Because They Do Not Meet the Statutory Requirements for "Small Numbers" or "Negligible Impact."**

The Fisheries Service must reject all five IHA applications for failure to meet the MMPA "small numbers requirement" because the Fisheries Service's arbitrary revisions to takes for the five proposed IHAs as well as the actual takes requested in the IHA applications: (1) request takes that far exceed any prior justifiable legal definition of "small numbers," and it is unlikely that any IHA application for activities of this scale that uses realistic marine mammal density modeling will meet this requirement; (2) request takes of a large percentage of a critically endangered species, namely the North Atlantic right whale; and (3) request takes of populations with no known stock estimates in the Atlantic. In addition, the Fisheries Service must reject the IHA applications and Fisheries Service's arbitrarily revised takes in the proposed IHAs for requesting takes that will have a non-negligible impact on marine mammals, especially where the takes will equal or exceed the "potential biological removal level" for the species.

**1. The "small numbers" statutory requirement of the MMPA is not met.**

**a. Proposed IHAs Allowing Up to 30 Percent Takes of a Marine Mammal Stock Abundance Estimate Categorically Violate the MMPA "Small Numbers" Requirement and Must Be Denied.**

In the Federal Register notice, the Fisheries Service states that "we propose a take authorization limit of 30 percent of a stock abundance estimate" to define "small numbers" and limiting IHA applicant takes to that level.<sup>356</sup> The agency revised the numbers of potential incidental take proposed for authorization in the IHAs at Table 11 to reach the agency proposed "small number" level of 30% or less, which in several instances means that the agency is allowing the IHA applicant to *increase* take levels. For example, Spectrum's take levels for all marine mammal

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environmental organization's claim that 43% of a population would be taken pursuant to an IHA, violating the "small numbers" requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>355</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002).

<sup>356</sup> 82 Fed. Reg. 26244, 26295 (June 6, 2017); *see also id.* at Table 10.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 56 of 99

species but one (the blue whale) were *increased* by the Fisheries Service.<sup>357</sup> The same thing occurred in some respect for each of the other four IHA applicants.<sup>358</sup>

As Federal courts, when determining the meaning of the “small numbers” requirement, have *never* found an IHA that requested a percentage of take greater than 12 to be a “small number.”<sup>359</sup> Using the federal court defined amount of 12 percent, which is still too high in Oceana’s view, four of the five proposed IHAs individually violates the MMPA requirement for “small numbers.” Looking at Table 10 at each of the IHA applicants’ percentage takes for the listed marine mammal species, one finds that: Spectrum exceeds “small numbers” for at least nine species; TGS exceeds “small numbers” for at least 12 species; Western exceeds “small numbers” for at least 12 species; and CGG exceeds “small numbers” for at least six species. And, if one looks at the cumulative impacts across all five proposed IHAs (and one most certainly must look at cumulative impacts in light of the overlapping nature of these applications in terms of timeframe and location), “small numbers” is exceeded for almost every marine mammal species listed in Table 10, including endangered species such as the North Atlantic right whale.<sup>360</sup>

**b. WesternGeco’s and TGS’s IHA applications alone show that the Fisheries Service cannot approve any of these IHA applications because they would fail to meet the “small numbers” requirement of the MMPA.**

If one looks at the actual estimated takes in the IHA applications, all five of the IHA applications should be denied for failure to meet the “small numbers” requirement of the MMPA. By way of example, considering only WesternGeco’s and TGS’s IHA applications (as they at least incorporate some *CetMap* data), it is clear that the Fisheries Service cannot approve any of the five IHA applications for large-scale seismic exploration in the Atlantic Ocean. If the IHA applications that used partial data that approaches the “best scientific evidence available,” i.e., *CetMap* data, do not meet “small numbers” requirements, it is evident that any of the five IHA applications individually, most certainly all five collectively, cannot meet the MMPA’s “small numbers” requirement.

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<sup>357</sup> See Oceana’s Table Analyzing Take Adjustments Made by the Fisheries Service (July 21, 2017) (on file with Oceana).

<sup>358</sup> *Id.*

<sup>359</sup> See *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); see also *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015*, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an environmental organization’s claim that 43% of a population would be taken pursuant to an IHA, violating the “small numbers” requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>360</sup> 82 Fed. Reg. 26244, Table 10 (June 6, 2017); see also Oceana’s Table Analyzing Take Adjustments Made by the Fisheries Service (July 21, 2017) (on file with Oceana).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 57 of 99

The MMPA does not define “small numbers.”<sup>361</sup> Federal courts, when determining the meaning of the “small numbers” requirement, have *never* found an IHA that requested a percentage of take greater than 12 to be a “small number.”<sup>362</sup> One court found that an IHA “that permits the potential taking of as much as 12 percent of the population of a species is *plainly* against Congress’ intent.”<sup>363</sup>

WesternGeco’s and TGS’s IHA applications list takes for twenty-eight species of marine mammal.<sup>364</sup> The two applications list abundances for twenty-one species stocks.<sup>365</sup> The applications give no estimates for another seven species stocks.<sup>366</sup> The table below provides calculations for every marine mammal species where the two IHA applications either exceed, or are close to exceeding, 12 percent of the total marine mammal stock:

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<sup>361</sup> The Fisheries Service’s regulations include a definition of “small numbers,” but courts interpreting the statutory “small numbers” requirement have found that the Fisheries Service’s regulatory definition of “small numbers” disregards Congress’s intent and cannot be relied upon. *CBD v. Salazar*, 695 F.3d 893, 903 (9th Cir. 2012); *NRDC v. Evans*, 232 F. Supp.2d 1003, 1025–26 (N.D. Cal. 2002). The U.S. Fish and Wildlife Service, responsible for granting IHAs all marine mammals that the Fisheries Service does not have responsibility for, likewise has disregarded the regulatory definition as incorrect in its IHA process. *See* Marine Mammals; Incidental Take During Specified Activities; Proposed Incidental Harassment Authorization for Pacific Walruses in Alaska and Associated Federal Waters, 81 Fed. Reg. 40902, 40903 (June 23, 2016) (“[W]e do not rely on that [small numbers] definition here, as it conflates the terms “small numbers” and “negligible impact,” which we recognize as two separate and distinct requirements.”).

<sup>362</sup> *See NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); *see also* Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an environmental organization’s claim that 43% of a population would be taken pursuant to an IHA, violating the “small numbers” requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>363</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002).

<sup>364</sup> TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5.

<sup>365</sup> *Id.*

<sup>366</sup> *Id.*

**Table 1 –TGS and WesternGeco IHA Take Requests In EEZ<sup>367</sup> as Percentage of Stock**

| Marine Mammal Species                  | TGS IHA Take Requests | WesternGeco IHA Take Requests |
|----------------------------------------|-----------------------|-------------------------------|
| Atlantic Spotted Dolphin               | 78.42%                | 31.88%                        |
| Beaked Whales                          | 65.90%                | 34.10%                        |
| Sperm Whale                            | 61.91%                | 33.77%                        |
| Bottlenose Dolphin                     | 45.85%                | 23.73%                        |
| Rough-Toothed Dolphin                  | 43.42%                | 23.31%                        |
| Short-Beaked Common Dolphin            | 35.87%                | 12.61%                        |
| Pantropical Spotted Dolphin            | 29.89%                | 16.02%                        |
| Fin Whale                              | 27.85%                | 14.96%                        |
| Risso's Dolphin                        | 27.13%                | 12.21%                        |
| Pilot Whale                            | 20.10%                | 9.62%                         |
| Striped Dolphin                        | 21.20%                | 7.56%                         |
| Dwarf & Pygmy Sperm Whales (Kogia App) | 13.90%                | 7.46%                         |

Sources: TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5

In these two IHA applications alone, and only considering the area inside the EEZ,<sup>368</sup> Level B take requests exceed 12 percent for 12 marine mammal species in the TGS IHA application and for nine species in the WesternGeco IHA application. For TGS alone, Level B take requests for several marine mammal species - the Atlantic spotted dolphin, the beaked whale (*Kogia* spp), and the sperm whale, *exceed 60 percent*, and the take request for the Atlantic spotted dolphin *exceeds 75 percent*. WesternGeco proposes to take almost a third of these same species. In other words, each of these two IHA applications, when individually analyzed, request Level B takes that are well more than double the 12 percent “small numbers” threshold identified by one court for several marine mammal species. In fact, the IHA applications request Level B takes over the 12 percent threshold for *more than half of the species* for which takes are requested.<sup>369</sup> These

<sup>367</sup> The numbers for takes within the EEZ are given instead of totals (both in and outside the EEZs), because *CetMap*’s creators specifically stated that the cetacean density map is designed for U.S. waters, i.e., within the EEZ. See NOAA, *What is CetMap?*, <http://cetsound.noaa.gov/cda-index> (last visited Nov. 16, 2016). In the past, the Fisheries Service has ignored the Marine Mammal Commission’s advice and divided takes between the EEZ and the non-EEZ and used only the takes within the EEZ to determine the whether those takes met the statutory requirements of the MMPA. See *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to a Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard*, August to September 2014 and April to August 2015, 79 Fed. Reg. 52122, 52,130-31 (Sept. 2, 2014).

<sup>368</sup> The Fisheries Service’s regulations include a definition of “small numbers,” but courts interpreting the statutory “small numbers” requirement have found that the Fisheries Service’s regulatory definition of “small numbers” disregards Congress’s intent and cannot be relied upon. *CBD v. Salazar*, 695 F.3d 893, 903 (9th Cir. 2012); *NRDC v. Evans*, 232 F. Supp.2d 1003, 1025–26 (N.D. Cal 2002).

<sup>369</sup> In the WesternGeco and TGS IHA applications, each applicant gave estimations of take percentages by calculating the estimated total number of *individuals* taken and comparing that to the total population, if known. See TGS IHA Application Table 6.5; WesternGeco IHA Application at Table 6.5 (giving only a “% of abundance exposed (based on individuals exposed),” and not a percentage based on total takes requested (e.g., acts of pursuit, torment or annoyance) compared to the total population of a marine mammal species). As a result, both IHA

# Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 59 of 99

IHA applications clearly exceed what would be permissible “small numbers” under the MMPA and must be denied.

- c. **The five IHA applications include takes for high percentages of exceedingly small populations, which cannot be a “small number.”**

While courts have held that a take percentage of 12 percent or more would not be a “small number,”<sup>370</sup> no court has found that a take equaling nearly nine percent of a species as critically endangered as the North Atlantic right whale is acceptable.

**Table 2 - North Atlantic Right Whale Takes**

| <b>Requested Takes By Exposures</b>                      |                                                                      |                     |
|----------------------------------------------------------|----------------------------------------------------------------------|---------------------|
|                                                          | <b>Level A Take</b>                                                  | <b>Level B Take</b> |
| <b>Spectrum</b>                                          | <b>1</b>                                                             | <b>1</b>            |
| <b>TGS</b>                                               | <b>0</b>                                                             | <b>12</b>           |
| <b>WesternGeco</b>                                       | <b>0</b>                                                             | <b>6</b>            |
| <b>ION</b>                                               | <b>2</b>                                                             | <b>14</b>           |
| <b>CGG</b>                                               | <b>0</b>                                                             | <b>2</b>            |
| <b>-Total Per Take Type-</b>                             | <b>-3-</b>                                                           | <b>-35-</b>         |
| <b>Total</b>                                             | <b>38</b>                                                            |                     |
| <b>Total divided by population<br/>440<sup>371</sup></b> | <b><u>8.63%<sup>372</sup> of the population will be harassed</u></b> |                     |

Sources: Spectrum IHA Application at Table 4; TGS IHA Application at Table 6.5, 85; WesternGeco IHA Application at Table 6.5, 83; ION IHA Application at Table 4; CGG IHA Application at Tables 4, 7.

The potential biological removal level for the North Atlantic right whale is one.<sup>373</sup> This means that the population would be significantly affected if one right whale was seriously injured or

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applicants have used an incorrect method to estimate the relevant percentage for purposes of determining a “small numbers.” See 16 U.S.C. 1371(a)(5)(A) (stating an IHA or LOA can only request “the incidental, but not intentional, taking by harassment of *small numbers* of marine mammals”). The MMPA defines “harassment,” a type of “take,” as “any *act* of pursuit, torment, or annoyance.” 16 U.S.C. § 1362(18) (emphasis added). The Fisheries Service’s website states that the agency will only authorize a take “if we find that the *taking* would be[] of small number . . . .” Fisheries Service, *Incidental Take Authorizations under the MMPA*, <http://www.nmfs.noaa.gov/pr/permits/incidental> (last updated Sept. 2, 2016) (emphasis added). Thus, the “take” itself must be “small numbers,” and to determine this, the Fisheries Service and the IHA applicants must calculate the number of takes – the number of acts of pursuit, torment or annoyance – that occur and compare that number to the total population.

<sup>370</sup> See, e.g., *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”).

<sup>371</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017) (noting a NMFS stock abundance of 440 for the endangered and depleted North Atlantic right whale and a PBR of one).

<sup>372</sup> 8.63% is derived by dividing total takes of 38 by the population of North Atlantic right whales of 440.

<sup>373</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 12 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf) (“The minimum population size is 440. The maximum productivity rate is 0.04, the default value for cetaceans. PBR for the Western Atlantic stock of



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 60 of 99

killed.<sup>374</sup> Here, the five IHA applications request permission to harass North Atlantic right whales 38 times— if they harass 38 different individuals that would amount to harassment of nearly 9 percent of the right whale population. Nearly nine percent is still a significant number of takes for such a small population of approximately 440 individuals.<sup>375</sup> Nine percent should still be considered more than a “small number,” especially in light of the potential biological removal level of one for the North Atlantic right whale species.

The requested take of 12 percent of the total population at issue in *NRDC v. Evans* involved the eastern North Pacific elephant seal.<sup>376</sup> The Fish and Wildlife Service calculated the population of the North Pacific elephant seal at just over 100,000 in 2001.<sup>377</sup> In contrast, the North Atlantic right whale population is only about 440 individuals.<sup>378</sup> If 12 percent of a relatively large population of 100,000 is not “small numbers,” then the Fisheries Service should not consider the nearly nine percent of a population of 440 – a population of less than half of one percent of North Pacific elephant seal – to be a “small number.”

### **d. The Fisheries Service cannot consider IHA applications that include takes requests for marine mammal populations without stock estimates.**

The Fisheries Service would be abrogating its responsibilities under the MMPA if it approved takes of stocks in the Atlantic with no population estimates. Courts, in interpreting the “small numbers” requirement of the MMPA, always consider the take request as a percentage of the total stock population in the region.<sup>379</sup> Thus, if the Fisheries Service does not know the

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the North Atlantic right whale is 1.”) Technically, in light of the recent North Atlantic right whale deaths, the PBR is .86, meaning that not even one right whale can be taken.

<sup>374</sup> Fisheries Service, *Protected Resources Glossary*, <http://www.nmfs.noaa.gov/pr/glossary.htm> (last updated May 7, 2014).

<sup>375</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 12 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf) (“The minimum population size is 440. The maximum productivity rate is 0.04, the default value for cetaceans. PBR for the Western Atlantic stock of the North Atlantic right whale is 1.”).

<sup>376</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1026 (N.D. Cal. 2002) (noting that more than 12 percent of the elephant seals in the eastern North Pacific will be affected by the Navy’s use of low frequency sonar system).

<sup>377</sup> Derek E. Lee, *Population Size and Reproduction Success of Northern Elephant Seals on the South Farallon Islands 2005-2006* 2, [https://www.fws.gov/uploadedFiles/2006EsealRep\(1\).pdf](https://www.fws.gov/uploadedFiles/2006EsealRep(1).pdf).

<sup>378</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 12 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf).

<sup>379</sup> See *NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); see also *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015*, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an environmental organization’s claim that 43% of a population would be taken pursuant to an IHA, violating the

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 61 of 99

population, it cannot calculate whether the take request exceeds the “small numbers” element of the MMPA. All five IHA applications request takes for seven species that have unknown populations in the Atlantic: Bryde’s whale, the pygmy killer whale, the northern bottlenose whale, Fraser’s dolphin, killer whale, the melon-headed whale, and the spinner dolphin.<sup>380</sup> In addition, neither the ION nor the Spectrum IHA application lists a population estimate for the false killer whale, and the Spectrum IHA application does not provide a population estimate for the Clymene dolphin.<sup>381</sup>

The Fisheries Service wrongly excluded “rare species” from its analysis.<sup>382</sup> Impacts to all marine mammal species occurring in the proposed survey areas should be fully considered and analyzed in the IHA analyses, including for the following species: sei whale, Bryde's whale, blue whale, killer whale, false killer whale, pygmy killer whale, melon-headed whale, northern bottlenose whale, spinner dolphin, Fraser's dolphin, Atlantic white-sided dolphin.

The Fisheries Service is obligated, under the MMPA, to authorize only takes of “small numbers” of a population. Without a population estimate, discerning whether or not the take is a “small number,” as is required by statute, is impossible. At a minimum, there is a total lack of data on populations of several marine mammal species for which takes have been requested in the IHA applications. As a result, the Fisheries Service must take a precautionary approach, in keeping with the intent of the statute,<sup>383</sup> to ensure these marine mammal species will not be harassed in violation of the MMPA by denying the IHA applications.

### **2. The “negligible impact” requirement of the MMPA is not met.**

While the MMPA does not define “negligible impact,” the term is defined in the MMPA regulations as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.”<sup>384</sup> The “negligible impact” standard concerns the type of harm

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“small numbers” requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>380</sup> WesternGeco IHA Application at Table 6.5; TGS IHA Application at Table 6.5; ION IHA Application at Table 2; Spectrum IHA Application at Table 2. Seal populations are listed in a several of the IHA applications, but no take requests have been made.

<sup>381</sup> ION IHA Application at Table 2; Spectrum IHA Application at Table 2.

<sup>382</sup> 82 Fed. Reg. 26,244, 26,292-94 (June 6, 2017).

<sup>383</sup> H.R. Rep. No. 92-707, 1972 U.S.C.C.A.N. 4144, 4148 (Dec. 4, 1971); *see also Kanoa Inc. v. Clinton*, 1 F. Supp. 2d 1088, 1093 (D. Haw. 1998)(noting that the MMPA was enacted to ensure the protection and conservation of marine mammals).

<sup>384</sup> 50 C.F.R. § 216.103. The Fisheries Service’s regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 18.27. However, both courts and Fish and Wildlife Service, which authorizes IHA applications for some marine mammals, have stated that the regulatory definition is an incorrect conflation of “small numbers” with “negligible impact” and do not rely upon it. *See Marine Mammals; Incidental Take During Specified Activities; Proposed Incidental Harassment Authorization for Pacific Walrus in Alaska and Associated Federal Waters*, 81 Fed. Reg. 40902, 40903 (June 23, 2016) (“[W]e do not rely on that [small numbers] definition here, as it conflates the terms “small numbers” and “negligible impact,” which we recognize as two separate and distinct requirements.”).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 62 of 99

caused by a take as compared to the extent of the take in the “small numbers” determination. In other words, while “small numbers” relates to a portion of take compared to the whole of the species or stock, “negligible impact” is “qualitative” and “involves reproduction and survival.”<sup>385</sup> For small populations, a non-negligible impact is “harm to a few or even one member [that] can harm the population as a whole.”<sup>386</sup> For example, the harm “of even small numbers of mammals might prevent mating or reproduction during key parts of the year, or might result in lethal take of newborn mammals.”<sup>387</sup> The Fisheries Service most certainly should not grant IHA applications if to do so would endanger the species’ survival, as the impact would be not be “negligible.”

This definition of “negligible impact” is comparable to the definition used by BOEM in its NEPA analyses for the 2014 Atlantic Final Programmatic EIS, which defines a “negligible impact” as an impact with “little or no measurable [or] detectable impact.”<sup>388</sup> When BOEM analyzed the impacts of seismic airguns under NEPA, it found the two proposed alternatives involving use of seismic in the Atlantic would have “moderate” impacts on marine mammals, meaning “[i]mpacts are detectable, short-term, extensive, and severe; or impacts are detectable, short-term or long-lasting, localized, and severe; or impacts are detectable, long-lasting, extensive or localized, but less than severe.”<sup>389</sup> In the BOEM classification scheme, this was two levels more severe than “negligible impact.”<sup>390</sup>

The Fisheries Service’s “subjective and relative” decision matrix in the Federal Register notice leads to a flawed negligible impact determination,<sup>391</sup> and one that would even allow takes in excess of the “potential biological removal level” (“PBR”) for marine mammal species in the proposed survey area.<sup>392</sup> Even, PBR is not a sufficient, however. In 1999, the Fisheries Service issued a “process for determining negligible impact” in the context of fisheries, which contains thresholds lower than PBR.<sup>393</sup> At a minimum, this same process for determining negligible impact should be considered for all activities that impact marine mammals.

The agency’s approach to negligible impact is illogical and unlawful. Potential biological removal levels are listed in Table 4 of the Federal Register notice and the estimated takes for the

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<sup>385</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1033 (N.D. Cal. 2002)

<sup>386</sup> *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 988 (N.D. Cal. 2014).

<sup>387</sup> *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 905 (9th Cir. 2012).

<sup>388</sup> BOEM 2014 Final Programmatic EIS at x. The same document describes a more detrimental “minor impact” as “impacts [that] are detectable, short-term, extensive, or localized, but less than severe.” *Id.*

<sup>389</sup> *Id.* at x, xxiii.

<sup>390</sup> *Id.* at x.

<sup>391</sup> 82 Fed. Reg. 26,244, 26,296 (June 6, 2017); *id.* at 26,296-26,308. In the Fisheries Service’s self-described “subjective and relative” decision matrix, a negligible impact rating is allegedly derived by combining “magnitude,” which is composed of measurable factors – amount of take, spatial extent and temporal extent of effect, “consequence”, which is a qualitative, and context, which includes species-specific information related to the status of the stock and mitigation.

<sup>392</sup> 16 U.S.C. § 1362(20). The Fisheries Service must evaluate several factors to determine the “potential biological removal level”: (1) the minimum population estimate of the stock; (2) one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size; and (3) a recovery factor of between 0.1 and 1.0. *Id.*

<sup>393</sup> 64 Fed. Reg. 28,800 (May 27, 1999).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 63 of 99

five proposed IHAs, which the agency arbitrarily revised, are listed in Table 11.<sup>394</sup> The actual estimated takes requested by the applicants are found in the IHA applications.<sup>395</sup>

- Humpback whale: By conducting this comparison between Table 4 and Table 11 in the Federal Register, one finds that, with respect to the humpback whale, which has an annual potential biological removal level of only 13 individuals, the serious injury (Level A) take estimates from Spectrum (16), TGS (22) and CGG (22) clearly exceed 13 individuals when looked at separately. Takes of this magnitude could harm the population growth rate of the species if looked at cumulatively (as they should be).
- Pantropical spotted dolphin: In its IHA application, CGG requested 37 serious injury (Level A) takes of the pantropical spotted dolphin.<sup>396</sup> The PBR for this species is 17.<sup>397</sup> As CGG's take request exceeds the PBR for this species, the Fisheries Service should deny the IHA application for failure to meet the "negligible impact" standard of the MMPA.
- North Atlantic right whale: The PBR for the endangered and depleted population of 440 individual North Atlantic right whales is one;<sup>398</sup> however, there have been nine mortalities of North Atlantic right whales since March 2017, including two sexually mature females<sup>399</sup> and one yearling that was a female. While the PBR for North Atlantic right whales was calculated as one when the population was 440, the calculated PBR would be even further reduced as a result of the additional loss of nine individuals since March 2017.<sup>400</sup> Here, the serious injury or mortality (Level A) take estimates for Spectrum (1) and ION (2) exceed the current PBR for the right whale; therefore, their IHA applications should be denied. In addition, take estimates found in each of the five IHA applications request permission to harass North Atlantic right whales 38 times— if they harass 38 different individuals that would amount to harassment of nearly nine percent of the right whale population. See table below. Roughly nine percent is a significant number of takes for such a small population of only 440 individuals, particularly considering that the population is

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<sup>394</sup> 82 Fed. Reg. 26,244, 26,269-70, Table 4 – Marine Mammals Potentially Present in the Vicinity of the Proposed Survey Activities (June 6, 2017); *id.* at 26,295-96 at Table 11 – Estimated Incidents of Potential Exposure for Level B Harassment. Table 10, represents the estimated incidents of exposure as devised by the Fisheries Service to allow each individual applicant to take up to 30% of a stock abundance estimate (resulting in the take of an absurdly large number of a marine mammal species when looked at from a cumulative perspective. *Id.* at Table 10 – Numbers of Potential Incidental Take Proposed for Authorization.

<sup>395</sup> Spectrum IHA Application at Table 4; TGS IHA Application at Table 6.5, 85; WesternGeco IHA Application at Table 6.5, 83; ION IHA Application at Table 4; CGG IHA Application at Tables 4, 7.

<sup>396</sup> CGG IHA Application at Table 4.

<sup>397</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017).

<sup>398</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017) (noting a NMFS stock abundance of 440 for the endangered and depleted North Atlantic right whale and a PBR of one).

<sup>399</sup> *The Guardian* online (July 8, 2017), <https://www.theguardian.com/environment/2017/jul/08/right-whales-dead-canada-endangered-species>

<sup>400</sup> The potential biological removal level for the North Atlantic right whale is likely closer to .86 (440 - 9 x .02 x 1).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 64 of 99

declining in abundance.<sup>401</sup> On this basis alone, the five proposed IHAs would not meet the “negligible impact” standard and should be denied.

A recent scientific study demonstrates that “low-frequency ship noise may be associated with chronic stress in whales, and has implications for all baleen whales in heavy ship traffic areas, and for recovery of this endangered right whale population.”<sup>402</sup> Seismic airgun noise is within the same frequency range as shipping (20-200 Hz)<sup>403</sup> and is generally louder, i.e., at a higher decibel level, than shipping noise. Thus, if ship noise stresses whales, seismic airgun surveying used by G&G survey companies will likely stress baleen whales, such as the North Atlantic right whale. Seismic airgun blasts can emit sounds louder than 200 dB (e.g., up to at least 272 dB of sound) into the ocean.<sup>404</sup> When these decibel levels are compared to the 2016 Acoustic Guidance chart above, marine mammals are indeed at risk of PTS from G&G surveying in the Atlantic. If IHA applications are granted, seismic airgun noise from G&G survey activities will likely affect the recovery of the endangered North Atlantic right whale population and adversely impact all baleen whales in the area of seismic airgun activity in the Atlantic, including humpback and minke whales as well as endangered blue, sei, and fin whales.

The 2016 U.S. Atlantic Marine Mammal Stock Assessment for the North Atlantic right whale states that “reported human-caused mortality and serious injury was a minimum of 5.6 right whales per year from 2010 through 2014. Given that the PBR has been calculated as 1, any human-caused mortality or serious injury for this stock can be considered significant.”<sup>405</sup> Several of the IHA applications request Level A takes, which would include permitting of activities that have the potential to injure marine mammals. If approved, these seismic surveys would have the potential to significantly impact the North Atlantic right whale stock, which would likely lead to a non-negligible impact. Because of the vulnerability of this stock, any modification in behavior from seismic airgun noise—such as from Level B takes, including changes in feeding, nursing, and breeding which could lower the total reproductive rate of female right whales—could lead to lower overall numbers of North Atlantic right whales in the population, which is also a non-negligible impact.<sup>406</sup>

The IHA applications ask for takes of a number of species, including the critically endangered North Atlantic right whale. The chart below focuses on the right whale as an illustration, because its population is largely known. The takes are compared across all five IHA applications. Because right whales are critically endangered, their survival should be of great concern to the Fisheries Service.

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<sup>401</sup> North Atlantic Right Whale Consortium, *North Atlantic Right Whale Consortium 2015 Annual Report Card 3* (Nov. 2015), <http://www.narwc.org/pdf/2015%20Report%20Card.pdf>

<sup>402</sup> Rosalind M. Rolland et al., *Evidence that ship noise increases stress in right whales*, 279 *PROC. OF THE ROYAL SOC'Y B* 2363-68 (June 22, 2012),.

<sup>403</sup> *Id.*

<sup>404</sup> Spectrum IHA Application at 3 (noting decibel ranges of between 243-272 dB); ION IHA Application at 5 (noting decibel ranges of between 254-264 dB).

<sup>405</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock in US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016* at 20 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf).

<sup>406</sup> Rosalind M. Rolland, et al., *Evidence That Ship Noise Increases Stress in Right Whales*, 279 *PROC. R. SOC. B* 2363-68 (June 22, 2012).

# Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 65 of 99

**Table 2 - North Atlantic Right Whale Takes**

| <b>Requested Takes By Exposures</b>                      |                                                                      |                     |
|----------------------------------------------------------|----------------------------------------------------------------------|---------------------|
|                                                          | <b>Level A Take</b>                                                  | <b>Level B Take</b> |
| <b>Spectrum</b>                                          | <b>1</b>                                                             | <b>1</b>            |
| <b>TGS</b>                                               | <b>0</b>                                                             | <b>12</b>           |
| <b>WesternGeco</b>                                       | <b>0</b>                                                             | <b>6</b>            |
| <b>ION</b>                                               | <b>2</b>                                                             | <b>14</b>           |
| <b>CGG</b>                                               | <b>0</b>                                                             | <b>2</b>            |
| <b>-Total Per Take Type-</b>                             | <b>-3-</b>                                                           | <b>-35-</b>         |
| <b>Total</b>                                             | <b>38</b>                                                            |                     |
| <b>Total divided by population<br/>440<sup>407</sup></b> | <b><u>8.63%<sup>408</sup> of the population will be harassed</u></b> |                     |

Sources: Spectrum IHA Application at Table 4; TGS IHA Application at Table 6.5, 85; WesternGeco IHA Application at Table 6.5, 83; ION IHA Application at Table 4; CGG IHA Application at Tables 4, 7.

The population of the endangered and depleted North Atlantic right whale is estimated by scientists at about 440 individuals.<sup>409</sup> Among the IHA applications, two assume several right whale individuals will be subject to multiple takes, meaning individual right whales could suffer both a Level A take and a Level B takes or multiple Level B takes.<sup>410</sup> Simply considering the Level A takes, these IHA applications would allow three actions with “the potential to injure” a right whale.<sup>411</sup> If one of those three Level A takes prevents a right whale from breeding, affects their ability to communicate, to travel, or to feed, it could cause irreversible harm to the species’ survival.<sup>412</sup> When analyzed in the context of a potential biological removal level of one, whether looking at the Level A and Level B takes alone or together, the takes would clearly exceed one. As a result, the IHA applications do not meet the “negligible impact” standard in the MMPA.

Based on the most recent marine mammal stock assessment in the Atlantic for 2016,<sup>413</sup> the requested takes in the IHA applications for several other species would also exceed the potential biological removal level for that species. The chart below notes the marine mammal species for which the sum of either Level A or Level B takes and most definitely the sum of both Level A

<sup>407</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017) (noting a NMFS stock abundance of 440 for the endangered and depleted North Atlantic right whale and a PBR of one).

<sup>408</sup> 8.63% is derived by dividing total takes of 38 by the population of North Atlantic right whales of 440.

<sup>409</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 12 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf) (“The minimum population size is 440. The maximum productivity rate is 0.04, the default value for cetaceans. PBR for the Western Atlantic stock of the North Atlantic right whale is 1.”).

<sup>410</sup> TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5.

<sup>411</sup> 16 U.S.C. § 1362(18)(C) (stating that “the term ‘Level A harassment’ means harassment described in subparagraph (A)(i) . . .”) *id.* § 1362(18)(A)(i).

<sup>412</sup> Manuel Castellote, et al., *Acoustic and Behavioural Changes by Fin Whales (Balaenoptera Physalus) in Response to Shipping and Airgun Noise*, 147 BIOLOGICAL CONSERVATION 115-22 (Mar. 2012).

<sup>413</sup> Fisheries Service, NOAA Technical Memorandum NMFS-NE-241: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016 at Table 1, [http://www.nmfs.noaa.gov/pr/sars/pdf/atlantic2015\\_final.pdf](http://www.nmfs.noaa.gov/pr/sars/pdf/atlantic2015_final.pdf).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 66 of 99

and Level B takes would exceed the potential biological removal level for several species, including whales, dolphins and porpoises.

**Table 3 – Requested Takes in IHAs v. Potential Biological Removal Level (PBR)**

| <b>Marine Mammal Species</b> | <b>Pop (N best) listed by 2016 SAR summary table</b> | <b>PBR from 2016 SAR summary table</b> | <b>Sum Level A Takes</b> | <b>Sum Level B Takes</b> |
|------------------------------|------------------------------------------------------|----------------------------------------|--------------------------|--------------------------|
| sei whale                    | 357                                                  | 0.5                                    | 3                        | 22                       |
| Bryde's whale                | 33                                                   | 0.03                                   | 10                       | 141                      |
| blue whale                   | unknown                                              | 0.9                                    | 2                        | 46                       |
| fin whale                    | 1,618                                                | 2.5                                    | 1                        | 1716                     |
| harbor porpoise              | 79,833                                               | 706                                    | 2                        | 507                      |
| rough-toothed dolphin        | 271                                                  | 1.3                                    | 6                        | 424                      |
| North Atlantic right whale   | 440                                                  | 1                                      | 3                        | 33                       |
| humpback whale               | 823                                                  | 13                                     | 2                        | 126                      |
| sperm whale                  | 2,288                                                | 3.6                                    | 2                        | 6037                     |
| bottlenose dolphin           | 77,532                                               | 561                                    | 106                      | 70755                    |

Sources: TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5; Fisheries Service, NOAA Technical Memorandum NMFS-NE-241: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016 at Table 1, <https://www.nefsc.noaa.gov/publications/tm/tm241/tm241.pdf>

In the context of a “negligible impact” analysis, the Fisheries Service must ensure that potential biological removal levels are not exceeded.<sup>414</sup> As this chart demonstrates, by way of example for how to review all five IHAs, the potential biological removal levels for at least 10 marine mammal species are exceeded by the Level A and/or Level B takes requested two of the five IHA applications (i.e., TGS and WesternGeco). While neither Level A nor Level B harassments directly equate to a mortality, these types of harassments via seismic airguns are highly likely to amount to a serious injury that could lead to marine mammal mortality. As a number of the species have very low potential biological removal levels, the Fisheries Service must carefully weigh the impacts as there is a reasonable probability that the potential biological removal level will be exceeded. For all these reasons, the IHA applications should be denied for failure to meet the “negligible impact” requirement of the MMPA.

<sup>414</sup> *Conservation Council for Haw. v. Nat'l Marine Fisheries Serv.*, 97 F. Supp. 3d 1210, 1228-29 (Mar. 31, 2015) (noting the Fisheries Service’s past reliance on potential biological removal in the context of a “negligible impact” finding under 16 U.S.C. § 1371(a)(5)(A) and holding that a failure to make such an analysis violates the Fisheries Service’s requirement to use best available scientific evidence).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 67 of 99

### c. Under the MMPA, the Fisheries Service Must Use Best Scientific Evidence Available in its Analysis and Must Require Applicants to Incorporate Best Scientific Evidence Available in IHA Applications.

The MMPA and the Fisheries Service’s implementing regulations for the MMPA require the agency to use the “best scientific evidence available,” including when it authorizes incidental takes.<sup>415</sup> The Fisheries Service failed to use “best scientific evidence available” when setting “small numbers” to 30 percent of a stock abundance estimate. In fact, the Fisheries Service’s analysis surrounding this decision is utterly lacking in any scientific rationale.<sup>416</sup>

In addition, the Fisheries Service should use *CetMap*, as the most comprehensive and current information which to fulfill the requirement to use the “best scientific evidence available.” Finalized in 2015, *CetMap*, the product of a working group of academics and government specialists convened by NOAA in 2011, is a “comprehensive and easily accessible regional cetacean density and distribution map . . . .”<sup>417</sup> The working group designed *CetMap* specifically to further the protection of cetaceans – whales, dolphins, porpoises, and other marine mammals – worldwide.<sup>418</sup> In September 2015, the Marine Mammal Commission, the government agency charged with providing science-based information to further the MMPA’s conservation goals,<sup>419</sup> and the Fisheries Service itself concluded that *CetMap* data represents “the best available information at present.”<sup>420</sup> In addition, the Marine Mammal Commission stated that, at the very least, the Fisheries Service must specify preferred data sources “[r]ather than allowing each of the [IHA] applicants to determine what data source(s) to use . . . .”<sup>421</sup>

Of the five publicly available IHA applications, only TGS, WesternGeco and CGG partially use *CetMap*, along with other methods to determine marine mammal density.<sup>422</sup> While these two IHA applications are a step in the right direction, they still do not represent the “best scientific evidence available.” In addition, once the review and update to the 2016 Acoustic Guidance is

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<sup>415</sup> 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 216.105(c) (“[R]egulations will be established based on the best available information.”).

<sup>416</sup> 82 Fed. Reg. 26,244, 26,295 (June 6, 2017).

<sup>417</sup> NOAA, *What is CetMap?*, <http://cetsound.noaa.gov/cda-index> (last visited Nov. 16, 2016); see also Duke University Marine Geospatial Ecology Laboratory, *Habitat-Based Cetacean Density Models For The U.S. Atlantic And Gulf Of Mexico (2015 Version)*, <http://seamap.env.duke.edu/models/Duke-EC-GOM-2015/> (last visited Nov. 17, 2016) (explaining the methodology and use of the *CetMap* model).

<sup>418</sup> *Id.*

<sup>419</sup> Marine Mammal Commission, *About the Commission*, <http://www.mmc.gov/about-the-commission/> (last visited Nov. 9, 2016).

<sup>420</sup> Marine Mammal Commission, Comment Letter on IHA Applications of Spectrum Geo Inc., TGS-NOPEC Geophysical Company, ION GeoVentures, and TDI-Brooks International Inc. and on 80 Fed. Reg. 45195 at 4–5 (Sept. 1, 2015), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf).

<sup>421</sup> *Id.* at 4.

<sup>422</sup> Both TGS and WesternGeco use Exposures Modeled Using Line-Transect Theory and Exposures Modeled as Mean Group Size. TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5; see also CGG IHA Application at Table 4, 39 (noting that “additional surveys may have been added or information from existing survey data may have been updated since we conducted our analysis”).



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 68 of 99

complete and incorporates the “best scientific evidence available,”<sup>423</sup> this guidance along with updated guidance on Level B takes and any new science on endangered species, including North Atlantic right whales, should be required to be incorporated from the outset into any IHA applications. Currently, the five pending IHA applications for seismic surveys rely on a variety of differing sources for marine mammal stock abundance as well as outdated acoustic guidance from the 1990s to estimate takes; this is unacceptable in light of the scientific developments on acoustics in the intervening decades. All five of the proposed IHAs should be denied for this reason alone.

By using outdated data, the number of estimated takes of endangered species in the five pending IHA applications is simply too high; for example, as of now, only about 440 right whales remain with a PBR of one; no takes of this endangered species should be allowed.<sup>424</sup> And, proposed mitigation measures are insufficient to safeguard against takes of North Atlantic right whales. All five of the proposed IHAs should be denied for this reason alone.

For example, two of the IHA applications, from Spectrum and ION, use information that is often several decades old.<sup>425</sup> For example, the ION IHA Application uses population estimates for Clymene dolphins from the late 1990s, for humpback whales from the early 1990s, and for sei whales from the mid-1970s.<sup>426</sup> For a number of species, both the Spectrum and ION IHA Applications use the 2014 stock assessment reports, which is less accurate than *CetMap* and not the most recent stock assessment (there is a 2016 stock assessment).<sup>427</sup> The 2014 stock assessment report uses data for the melon-headed whale, Fraser’s dolphin, white-beaked dolphin and other species that dates from 2007. For several seal species, the data is from the early-to-mid 2000s.<sup>428</sup>

The IHA applications did not use the “best scientific evidence available.” For this reason, the Fisheries Service should reject all five IHA applications. The agency should not reconsider them unless the IHA applications are resubmitted calculating takes and marine mammal stock abundance using either *CetMap* or newer, up-to-date science. As the Marine Mammal Commission advised in September 2015, the Fisheries Service should specify preferred data sources, i.e., *CetMap* or other up-to-date science that fulfills the “best available science” requirement for each species; the agency should not consider any IHA applications unless the applications include that specified information.

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<sup>423</sup> Comments on NMFS’s Technical Guidance on Auditory Impacts on Marine Mammals (July 17, 2017) (on file with Oceana).

<sup>424</sup> Fisheries Service, *NOAA Technical Memorandum NMFS-NE-241: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016* at Table 1 (June 2017), <https://www.nefsc.noaa.gov/publications/tm/tm241/tm241.pdf>.

<sup>425</sup> Fisheries Service, *Marine Mammal Stock Assessment Report (SARs) by Region*, <http://www.nmfs.noaa.gov/pr/sars/region.htm> (listing a 2016 stock assessment) (last updated June 28, 2017).

<sup>426</sup> ION IHA Application at 11-13.

<sup>427</sup> Fisheries Service, *NOAA Technical Memorandum NMFS-NE-241: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016* at Table 1 (June 2017).

<sup>428</sup> *Id.*

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 69 of 99

In order to comply with legal requirements under the MMPA to base determinations on “the best scientific evidence available,”<sup>429</sup> the Fisheries Service must consider the latest scientific studies in any decision-making involving noise impacts on marine life and habitat, including *CetMap* data rather than out-dated stock assessment reports. In addition, new scientific research about the North Atlantic right whale shows that the species is even more vulnerable than previously thought. Not only may their population growth rate be decreasing once again, but entanglement may have a more significant impact on long-term effects on survival and reproduction than currently accounted for.<sup>430</sup> A recent scientific paper published in August 2016, reports that the North Atlantic right whale population has decreased, probably as a result of human-caused deaths combined with reduced calving rates.<sup>431</sup>

The Fisheries Service should also review Oceana’s new maps, showing that dolphins and whales are threatened by proposed G&G surveys in the Atlantic Ocean.<sup>432</sup> These maps incorporate the latest data from Duke University to show the density of fin, humpback and sperm whales or of dolphins per 100 square kilometers. Oceana’s maps demonstrate that if G&G surveying is carried out as proposed, large numbers of dolphins and endangered whales will be exposed to seismic airgun noise.<sup>433</sup>

Compliance with the MMPA requirement to use the best scientific evidence available includes ensuring that the Ocean Noise Strategy Roadmap is not only finalized but also implemented *before* making any determinations related to ocean noise, including whether to grant IHAs for the use of G&G survey technologies to conduct oil and gas exploration in the Atlantic.<sup>434</sup> The Roadmap outlines important policy recommendations about the effects of sound on marine mammals, especially the gaps in scientific data needed to fully predict the impact of noise on marine life.<sup>435</sup> The Fisheries Service must work with federal partners to fill shared critical scientific knowledge gaps and build an understanding of noise impacts on protected species and acoustic habitats *before* approving any IHA applications for G&G surveying in the Atlantic.<sup>436</sup>

Once updated in accordance with comments providing “best scientific evidence available,”<sup>437</sup> 2016 Acoustic Guidance will be an important tool for analyzing hearing effects of human made

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<sup>429</sup> 50 CFR §§ 216.02(a), 216.04(c).

<sup>430</sup> North Atlantic Right Whale Consortium, *North Atlantic Whale Consortium 2015 Annual Report Card* (Nov. 2015), [www.narwc.org/pdf/2015%20Report%20Card.pdf](http://www.narwc.org/pdf/2015%20Report%20Card.pdf); Letter from Scott Kraus et al., to the National Marine Fisheries Service Office of Protected Resources (Feb. 26, 2016); Letter from Atlantic Scientific Review Group, to Eileen Sobeck, Assistant Administrator for Fisheries, National Marine Fisheries Service (April 4, 2016).

<sup>431</sup> Scott Kraus et al., *Recent Scientific Publications Cast Doubt on North Atlantic Right Whale Future*, 3 FRONTIERS IN MARINE SCI. 137 (2016).

<sup>432</sup> Oceana, *Animated Maps Show Dolphins and Whales Threatened by Seismic Airgun Blasting in Atlantic Ocean* (Aug. 24, 2016), <http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean? ga=1.43826533.191812998.1462817124>.

<sup>433</sup> *Id.*

<sup>434</sup> Oceana, *Comment Letter re Draft Ocean Noise Strategy Roadmap* (July 1, 2016) (on file with Oceana).

<sup>435</sup> NOAA, *Ocean Noise Strategy Roadmap* (Sept. 2016),

[http://cetsound.noaa.gov/Assets/cetsound/documents/Roadmap/ONS\\_Roadmap\\_Final\\_Complete.pdf](http://cetsound.noaa.gov/Assets/cetsound/documents/Roadmap/ONS_Roadmap_Final_Complete.pdf).

<sup>436</sup> *See, e.g., id.* at 1, 7, 22, 24, 56, 61.

<sup>437</sup> Comments on NMFS’s Technical Guidance on Auditory Impacts on Marine Mammals (July 17, 2017) (on file with Oceana).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 70 of 99

sound on marine mammals, especially TTS and PTS hearing effects.<sup>438</sup> But, the 2016 Acoustic Guidance focuses on Level A takes and does not assess behavioral effects of the type that generally occur with Level B harassment of marine mammals, i.e., “any act of pursuit, torment, or annoyance which . . . has the potential to disturb a marine mammal or marine mammal stock in the wild . . . .”<sup>439</sup> Level B harassment can cause “disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.”<sup>440</sup> The Fisheries Service states that “[d]ue to the complexity and variability of marine mammal behavioral responses, [the Fisheries Service] will continue to work over the next years on developing additional guidance regarding the effects of anthropogenic sound on marine mammal behavior.”<sup>441</sup> The 1990s era acoustic guidance is still in use, however, to evaluate Level B behavioral effects. It is significantly outdated and no longer incorporates the best scientific evidence available. Once updated pursuant to the ongoing review, the 2016 Acoustic Guidance should be recognized as merely one tool that the agency can and should use to assess and quantify “takes” under the MMPA.<sup>442</sup> To fully evaluate how marine mammals will respond to sound exposure, including sounds produced from G&G survey technologies, updated acoustic guidance for Level B behavioral effects is crucial. The Fisheries Service should deny the proposed IHAs and wait to make any determinations about pending IHA applications for Atlantic G&G surveys until new guidance for both Level A and Level B is developed.

The Fisheries Service should carefully consider the recommendations in the new scientific report, entitled “Assessment of the Cumulative Effects of Stressors on Marine Mammals.”<sup>443</sup> The work, chaired by Dr. Peter L. Tyack from the University of Saint Andrews, one of the leading researchers in the world studying the impacts of noise on marine life, provides crucial insights on the complex requirements for analyzing cumulative effects of noise, including seismic airgun surveys, and other stressors on marine mammals.

In conclusion, to comply with the “best available science” mandate found in the MMPA, the Fisheries Service must, at a minimum, consider the latest scientific studies and marine mammal density maps to make its decision regarding the IHA applications. Moreover, the Fisheries Service must require that IHA applicants incorporate the “best available science” in their applications. Three of the five IHA applicants – TGS, WesternGeco and CGG – used *CetMap* data for only some of their take estimates; however, Spectrum and ION did not use *CetMap* data at all. All five IHA applications used outdated information to estimate takes and stock abundance and should be rejected on this basis alone. The five IHA applications should be denied in light of the failure to use “best scientific evidence available.” All five of the IHA

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<sup>438</sup> 2016 Acoustic Guidance.

<sup>439</sup> 16 U.S.C. § 1362(18)(D) (stating that “the term ‘Level B harassment’ means harassment described in subparagraph (A)(ii) . . . .”) *id.* § 1362(18)(A)(ii).

<sup>440</sup> *Id.*

<sup>441</sup> Fisheries Service, *NOAA’s Marine Mammal Acoustic Technical Guidance*, <http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm> (last updated Aug. 30, 2016).

<sup>442</sup> 2016 Acoustic Guidance at 8.

<sup>443</sup> Committee on the Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals, *Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals* vii, THE NATIONAL ACADEMIES PRESS (2016); *see also* National Academies of Sciences, Engineering, and Medicine Current Projects System, *Project Title: Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals*, <https://www8.nationalacademies.org/cp/projectview.aspx?key=49715> (last visited Sept. 29, 2016).

applications rely on the outdated acoustic guidance from the 1990s to estimate takes; this is unacceptable in light of scientific developments on acoustics in the intervening decades. In short, in addition to ensuring that the agency itself is using the “best scientific evidence available” to analyze the IHA applications, the agency must reject IHA applications that use outdated science for take and stock abundance estimates.

**d. As “Serious Injury” or “Mortality” to Marine Mammals from Both Sound and Ship Strikes is a Real Possibility Acknowledged in BOEM’s 2014 Programmatic EIS and the Fishery Service’s 2013 Programmatic Biological Opinion, the Fisheries Service Must Require Each G&G Survey Company to Apply for a Letter of Authorization (“LOA”) Rather than an IHA.**

Under the MMPA, the Fisheries Service may issue an IHA only if a proposed activity takes a “small number” of marine mammals and will have only a “negligible impact on the species or stock.”<sup>444</sup> If a proposed activity could cause serious injury or mortality to marine mammals, then the Fisheries Service must require a LOA based on rule-making.<sup>445</sup> Given the risks of serious injury or mortality from direct and indirect effects of the proposed activities, recognized by both BOEM and the Fisheries Service, G&G surveying companies must obtain an LOA rather than an IHA.

In the 2014 Atlantic Final Programmatic EIS, BOEM acknowledged that “mitigation measures would not be 100 percent effective, and therefore there is the potential to expose some animals to sound levels exceeding the 180-dB criterion, which would constitute Level A harassment and could result in injury.”<sup>446</sup> In addition, BOEM stated that “[d]ue to the spatial and temporal extent of the surveys in the proposed action, the total number of Level B harassments predicted, and the likelihood that some degree of Level A harassment may not be prevented, overall impacts on marine mammals from seismic airgun surveys are expected to be moderate.”<sup>447</sup>

In the 2013 Programmatic Biological Opinion, the Fisheries Service also recognized the potential for G&G survey boats to strike whales, including the critically endangered North Atlantic right whale: “When the vulnerability of right whales to ship strikes is combined with the density of ship traffic within the distribution of right whales, ship strikes seem almost inevitable.”<sup>448</sup> And, while not an absolute outcome in the context of seismic airgun surveying, North Atlantic right whales are particularly prone to ship strikes.<sup>449</sup>

North Atlantic right whales appear to be either unable to detect approaching vessels or, while right whales are engaged in behavioral activities — for example,

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<sup>444</sup> 16 U.S.C. § 1371(a)(5)(A), (D).

<sup>445</sup> 50 C.F.R. § 216.106.

<sup>446</sup> BOEM 2014 Final Programmatic EIS at 2-20.

<sup>447</sup> *Id.*

<sup>448</sup> Fisheries Service, Programmatic Geological and Geophysical Activities in the Mid- and South Atlantic Planning Areas from 2013 to 2020 at 158, 187-88 (July 19, 2013), <http://www.boem.gov/Final-Biological-Opinion-19-July-2013>.

<sup>449</sup> *Id.* at 158.

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 72 of 99

feeding, nursing, or mating — they ignore the visual or acoustic cues those vessels produce. Because right whales are buoyant and are slow swimmers, they may not be able to avoid oncoming vessels even if they are aware of its approach.<sup>450</sup>

Based on the potential biological removal level for the species, even one right whale death caused by humans would have adverse population-level effects, jeopardizing the survival of the species.<sup>451</sup> In keeping with the precautionary approach of the MMPA, the IHA applications should be denied to protect North Atlantic right whale from ship strikes.

As noted above, among the IHA applications, two assume several right whale individuals will be subject to multiple takes, meaning individual right whales could suffer both a Level A take and a Level B takes or multiple Level B takes.<sup>452</sup> Simply considering the Level A takes, these IHA applications would allow three actions with “the potential to injure” a right whale.<sup>453</sup> If one of those three Level A takes prevents a right whale from breeding, affects their ability to communicate, to travel, or to feed, it could cause irreversible harm to the species’ survival.<sup>454</sup> For these reasons, the Fisheries Service must reject the IHA applications and require G&G survey applicants to apply for LOAs.

As the Fisheries Service recognized in the 2016 Acoustic Guidance, anthropogenic sources of noise, like those from seismic surveying, present a threat to marine mammals if they are loud enough to impair their hearing.<sup>455</sup> When hearing impairments potentially caused by seismic airgun surveys are taken into account, while TTS is not a physical injury and would only need Level B authorization, a PTS is indeed a physical injury that would require at least a Level A harassment authorization. Because hearing is critical to whales, any injury to their hearing should be construed as a “serious injury” under the MMPA as it is more likely than not that a whale would die from injury to their hearing as they could no longer forage for food, or communicate with other whales. In light of this, a PTS should instead be classified as a “serious injury” under the MMPA, requiring an LOA instead of an IHA.

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<sup>450</sup> *Id.*

<sup>451</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock in US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2016* at 20 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf). (stating that “[t]he North Atlantic right whale is considered one of the most critically endangered populations of large whales in the world” and that “[g]iven that PBR has been calculated as 1, any mortality or serious injury for this stock can be considered significant”).

<sup>452</sup> TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5.

<sup>453</sup> 16 U.S.C. § 1362(18)(C) (stating that “the term ‘Level A harassment’ means harassment described in subparagraph (A)(i) . . .”) *id.* § 1362(18)(A)(i).

<sup>454</sup> At a minimum, impacts from seismic airgun noise on whales include displacement, chronic stress, avoidance, communication masking, and vocalization changes. Jonathan Gordon, et al., *A Review of the Effects of Seismic Surveys on Marine Mammals*, 37 MAR. TECHNOL. SOC. J. 16-34 (Winter 2004). The potential harm of human-made noise, including noise from seismic airgun blasting, is real and can impact the survival of whales at both individual and population levels. See, e.g., Fisheries Service, *North Atlantic Right Whales (Eubalaena glacialis)*, <http://www.nmfs.noaa.gov/pr/species/mammals/whales/north-atlantic-right-whale.html> (last updated July 20, 2017).

<sup>455</sup> 2016 Acoustic Guidance at Table 4.

## **II. National Environmental Policy Act (“NEPA”)**

### **a. Compliance with NEPA Prevents the Fisheries Service from Tiering to BOEM’s 2014 Atlantic Final Programmatic PEIS.**

In the event the Fisheries Service does not deny the IHA applications (and it should), Oceana urges the agency to comply with NEPA. Because of the fundamental flaws in BOEM’s 2014 Atlantic Final Programmatic EIS, the Fisheries Service should not tier to it. Moreover, BOEM should undertake a new programmatic NEPA analysis before moving forward with its review of seismic permit applications. “NEPA procedures must insure that environmental information is *available to public officials and citizens before decisions are made and before actions are taken.*”<sup>456</sup> However, as explained extensively in prior comments,<sup>457</sup> the 2014 Atlantic Final Programmatic EIS does not comply with the requirements of NEPA and does not provide the essential environmental information for the public.

#### **1. The 2014 Atlantic Final Programmatic PEIS is Fundamentally Flawed.**

The flaws in the 2014 Atlantic Final Programmatic PEIS are numerous. Among these flaws are the following:

- BOEM failed to consider a full range of alternatives, and, as a result, the preferred alternative mitigation measure will not adequately protect right whales;
- BOEM had, but did not consider, information on acoustic thresholds for marine mammals that shows that marine mammals suffer harm at much lower decibel levels than assumed in the Final Programmatic EIS;
- BOEM had, but did not consider, information on the possible indirect impacts of Level B takes, including the possibility that Level B takes resulting in mass mortality events;
- The baseline against which BOEM measured environmental impacts is inaccurate, resulting in inadequate consideration of the impacts of the proposed action; and
- BOEM failed to take a hard look at environmental impacts on essential fish habitat.<sup>458</sup>

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<sup>456</sup> 40 C.F.R. § 1500.1(b) (emphasis added).

<sup>457</sup> Oceana Comment Letter re: PEIS for G&G Activities in the Atlantic OCS at 162-170 of .pdf (May 7, 2014), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf); NGO Comment Letter re Notice of Receipt of Applications for Incidental Harassment Authorization (“IHA”) for Geophysical Surveys in the Atlantic Ocean at 44-46 of .pdf (Aug. 28, 2015), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf).

<sup>458</sup> Oceana Comment Letter re: PEIS for G&G Activities in the Atlantic OCS at 162-170 of .pdf (May 7, 2014), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 74 of 99

The 2014 Atlantic Final Programmatic EIS also fails to accurately capture the spatial and temporal extent of airgun noise propagation, which does not represent best available science.<sup>459</sup> Marine mammal density modeling in the 2014 Atlantic Final Programmatic EIS was based on the U.S. Navy's Navy Operating Area (OPAREA) Density Estimates (NODE) database, which in turn was based on density estimates from Southeast Fisheries Science Center shipboard surveys conducted between 1994 and 2006 and derived using a model-based approach and statistical analysis.<sup>460</sup> As discussed above and recognized by BOEM, *CetMap* is currently the best available science for marine mammal density modeling; however, the 2014 Atlantic Final Programmatic EIS does not incorporate *CetMap* and merely suggests that BOEM will use it for future G&G permits.<sup>461</sup>

To remedy the extensive shortcomings of BOEM's 2014 Atlantic Final Programmatic EIS, the agency must undertake a new programmatic analysis. And, because of the significant flaws in the existing programmatic EIS, the Fisheries Service should not tier any project-specific NEPA documents to it. When an agency completes a programmatic EIS and proposes an action anticipated in, consistent with, and sufficiently explored in the programmatic document, the agency can "tier" the subsequent proposal to that analysis.<sup>462</sup> However, here, the proposed actions are not all anticipated in and sufficiently explored in the 2014 Atlantic Final Programmatic EIS.

First, the flaws of the 2014 Atlantic Final Programmatic EIS are too extensive to be remedied at the project-specific level. Second, new information and circumstances demand analysis at the programmatic level, but were not explored in the 2014 Atlantic Final Programmatic EIS. For example, all of the new science and developments noted above, especially the predictive habitat data prepared by Duke University under the NOAA's *CetMap* program, are crucial to analysis of critical habitat designations and biologically important areas and create a different picture of the environmental landscape than what was available during the preparation of the programmatic EIS. Third, the IHA applicants proposed to conduct seismic airgun testing in environmentally sensitive areas outside of the area that BOEM analyzed in the 2014 Atlantic Final Programmatic EIS.<sup>463</sup> BOEM did not analyze effects on these sensitive areas at the programmatic level, and conducting this analysis at the project-specific level is insufficient. Therefore, the Fisheries

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<sup>459</sup> NGO Comment Letter re Notice of Receipt of Applications for Incidental Harassment Authorization ("IHA") for Geophysical Surveys in the Atlantic Ocean at 44-46 of .pdf, (Aug. 28, 2015), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf).

<sup>460</sup> BOEM 2014 Final Programmatic EIS at E-26.

<sup>461</sup> BOEM 2014 Final Programmatic EIS at E-27.

<sup>462</sup> Memorandum from Michael Boots, Council on Env'tl Quality, on Effective Use of Programmatic NEPA Reviews to the Exec. Office of the President 7-8, 42 (Dec. 18, 2014) (on file with Oceana).

<sup>463</sup> For example, Permit E15-001, now withdrawn, proposed to conduct seismic activities in the waters off the southern coast of Florida and into the Straits of Florida. BOEM, *Currently submitted Atlantic OCS Permits*, <https://www.boem.gov/Currently-submitted-Atlantic-OCS-Region-Permits/> (last visited Nov. 17, 2016) (noting that Permit Number E15-001 has been withdrawn). The 2014 Final Programmatic EIS only analyzed the environmental impacts of seismic activities in the Mid- and South Atlantic Planning Areas; it did not analyze any impacts in the Strait of Florida Planning Area. BOEM 2014 Final Programmatic EIS at vii; *see also id.* at 3-19 ("[A] project . . . in the Straits of Florida Planning Area [is] outside the scope of this Programmatic EIS."). Thus, the activities proposed in Permit E15-001 were outside the scope of the federal action analyzed in the 2014 Final Programmatic EIS.

Service should not tier project-specific NEPA documents to the 2014 Atlantic Final Programmatic EIS, because the proposed actions were not all anticipated in, consistent with, or sufficiently explored in BOEM's programmatic analysis.

**2. Compared to the 2016 Gulf Draft Programmatic EIS, the 2014 Atlantic Final Programmatic PEIS is Insufficient.**

In September 2016, BOEM issued the Gulf of Mexico Draft Programmatic EIS on Proposed Geological and Geophysical Activities ("2016 Gulf Draft Programmatic EIS"). The 2016 Gulf Draft Programmatic EIS analyzes several impacts of G&G surveying that the 2014 Atlantic Final Programmatic EIS did not, including entanglement of marine mammals in G&G survey gear. The analysis in the 2016 Gulf Draft Programmatic EIS recognizes that there is a "risk of entanglement any time gear, particularly lines and cables, is put in the water."<sup>464</sup> BOEM completely failed to analyze the possibility of entanglements from G&G activities in the 2014 Atlantic Final Programmatic EIS. In addition, the 2016 Gulf Draft Programmatic EIS includes reduced levels of seismic activities,<sup>465</sup> while the 2014 Atlantic Final Programmatic EIS does not. The 2016 Gulf Draft Programmatic EIS includes large area closures, whereas the area closures in the 2014 Atlantic Final Programmatic EIS are quite small.<sup>466</sup> The 2016 Gulf Draft Programmatic EIS includes a report at Appendix K that analyzes cumulative effects of G&G surveying on marine mammals,<sup>467</sup> while the analysis of cumulative effects in the 2014 Atlantic Final Programmatic EIS was lacking at best. Appendix L of the 2016 Gulf Draft Programmatic EIS analyzed the need to avoid duplicative G&G surveys in the same area,<sup>468</sup> however, this was not done for the 2014 Atlantic Final Programmatic EIS. As several G&G survey companies have applied for permits to conduct seismic airgun surveying in approximately the same area at approximately the same time in the Atlantic, a report similar to Appendix L is essential in a revised Atlantic programmatic EIS.

**3. The 2014 Atlantic Final Programmatic EIS Relied on a Now Out-Dated Biological Opinion.**

BOEM and the Bureau of Safety and Environmental Enforcement ("BSEE") have reinitiated Section 7 consultation and requested conference with the Fisheries Service in the Atlantic for G&G activities in light of the following:

- Final rule designating critical habitat for the Northwest Atlantic distinct population segment (DPS) of loggerhead sea turtles (79 FR 39855);
- Final rule listing the Northwest Atlantic and Gulf of Mexico DPS of scalloped hammerhead shark as endangered (79 FR 38213);

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<sup>464</sup> 2016 Gulf Draft Programmatic EIS at 4-74.

<sup>465</sup> 2016 Gulf Draft Programmatic EIS at Chapter 2.

<sup>466</sup> Compare 2016 Gulf Draft Programmatic EIS at Table ES-1 with 2014 Atlantic Final Programmatic EIS at Table 2-6.

<sup>467</sup> 2016 Gulf Draft Programmatic EIS at Appendix K at 485.

<sup>468</sup> 2016 Gulf Draft Programmatic EIS at Appendix L at 541.



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 76 of 99

- Proposed rule to expand designated critical habitat for the North Atlantic Right Whale (80 FR 9314);
- Proposed listing of the following species under the ESA: (i) Caribbean electric ray (79 FR 4877); (ii) dwarf seahorse (77 FR 25687); (iii) bigeye thresher shark (80 FR 48061); (iv) common thresher shark (80 FR 11379); (v) porbeagle shark (80 FR 16356); (vi) smooth hammerhead shark (80 FR 48053); (vii) humpback whale (80 FR 22304); (viii) and green sea turtle (80 FR 51763); and
- New information available since the issuance of the 2013 Programmatic Biological Opinion.<sup>469</sup>

The 2014 Atlantic Final Programmatic EIS relied upon the prior programmatic biological opinion in its analysis of impacts on marine mammals. Once the new biological opinion is released, BOEM should update the Atlantic programmatic EIS and address all the aforementioned deficiencies. The update of the Atlantic programmatic EIS must happen *before* the Fisheries Service can consider tiering its NEPA analysis for the IHA applications.

BOEM must remedy these failures and undertake a new programmatic analysis for the Atlantic G&G survey activities before the Fisheries Service can move forward with review of IHA applications. And, the Fisheries Service most certainly cannot use the deficient 2014 Atlantic Final Programmatic EIS for purposes of tiering to IHA-specific NEPA analyses.

**b. NEPA Compliance Requires Review of the Significant and Cumulative Impacts of All IHA Applications Due to the Similar Timeframes and Locations Proposed for G&G Surveys; Therefore, Not Only is an EIS for Each IHA Application Required but also a New Programmatic EIS, which Considers Cumulative Impacts and Incorporates Analysis of Climate Change.**

In the event the Fisheries Service does not deny the IHA applications (and it should), Oceana urges the agency to comply with NEPA. Federal agencies must conduct an environmental review of major federal actions when their impacts to the human environment are “significant.”<sup>470</sup> Significance is a function of both context and intensity. Federal agencies must analyze the significance of the action in several contexts (e.g., society as a whole, the affected region, the affected interests, and the locality), and consider the severity of the impacts to determine intensity.<sup>471</sup> The intensity of the impact refers to its severity, and the regulations define ten factors for agencies to consider when they evaluate intensity,<sup>472</sup> including . . .

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<sup>469</sup> BOEM, *Atlantic G&G Permitting*, <http://www.boem.gov/Atlantic-G-and-G-Permitting/#Section-7> (last visited July 20, 2017).

<sup>470</sup> 42 U.S.C. § 4332.

<sup>471</sup> 40 C.F.R. § 1508.27(a)–(b).

<sup>472</sup> 40 C.F.R. § 1508.27(b)(1)–(10).

- the degree to which the effects on the quality of the human environment are likely to be highly controversial;<sup>473</sup>
- the degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration;<sup>474</sup>
- whether the action is related to other actions with individually insignificant but cumulatively significant impacts;<sup>475</sup>
- the degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973;<sup>476</sup> and
- whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.<sup>477</sup>

When impacts are significant, agencies must develop an EIS analyzing the impacts of the project on the environment, as well as alternatives, and disclose any adverse environmental effects that cannot be avoided and any irreversible and irretrievable commitments of resources that would be involved.<sup>478</sup> As discussed below, the impacts of G&G surveys in the Atlantic will indeed be significant and meet these factors. In light of this, if the Fisheries Service does not deny the IHA applications (and it should), it must conduct full EIS for each IHA application and also a programmatic EIS for all IHA applications in the Atlantic survey area.

## **1. The Fisheries Service Should Conduct an Environmental Impact Statement, and not an Environmental Assessment, Because Granting the IHAs Would Have Significant Impacts on the Environment.**

Granting an IHA under the MMPA constitutes a major federal action, so the Fisheries Service must comply with NEPA and analyze the effects of the IHA on the human environment to determine whether they are significant. The NEPA Handbook developed by NOAA guides the agency on the NEPA process, and outlines how the agency should determine whether to do an EA or EIS.<sup>479</sup> The agency must determine the level of NEPA review based on significance. If the action will have a significant impact on the environment, the agency must do a full EIS. If the

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<sup>473</sup> 40 C.F.R. § 1508.27(b)(4).

<sup>474</sup> 40 C.F.R. § 1508.27(b)(6).

<sup>475</sup> 40 C.F.R. § 1508.27(b)(7). “Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” *Id.*

<sup>476</sup> 40 C.F.R. § 1508.27(b)(9).

<sup>477</sup> 40 C.F.R. § 1508.27(b)(10).

<sup>478</sup> 42 U.S.C. § 4332(2)(c).

<sup>479</sup> NOAA, *National Environmental Policy Act Handbook* 15 (May 2009),

[http://www.nepa.noaa.gov/NEPA\\_HANDBOOK.pdf](http://www.nepa.noaa.gov/NEPA_HANDBOOK.pdf).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 78 of 99

agency is not sure whether the impacts will be significant, then the agency should do an EA to determine the significance.

If the potential for significant impacts is apparent at the outset of the project, the Fisheries Service can begin the EIS process without first doing an EA. An EA should be done only if the significance of the impacts is unclear. CEQ regulations direct agencies to analyze the context of the action and the intensity of impacts in order to determine significance.<sup>480</sup> The significance of an action must be analyzed in several different contexts, which includes the society as a whole, the affected region and interests, and the locality.<sup>481</sup>

When viewed in context of society and the affected region, the pending IHAs are significant. They affect a large portion of the Atlantic, stretching from Delaware to Florida. Many of the coastal communities along the Atlantic shoreline are opposed to seismic exploration for offshore oil.<sup>482</sup> In the global context, nations are facing severe threats from climate change, and granting IHAs in the Atlantic is the first step of many that could open up the Atlantic to offshore drilling, thereby thwarting the United States' efforts to reduce its reliance on fossil fuels in keeping with reducing greenhouse gases. The Atlantic is currently not included in BOEM's five-year leasing program for 2017-2022, but the new administration has begun the process for new five-year leasing program for 2019-2024. In this broad context, the significance of these IHA applications is clear.

Agencies must also consider the intensity of the impact when determining significance. The intensity of the impact refers to its severity, and the regulations define ten factors for agencies to consider when they evaluate intensity.<sup>483</sup> Most relevant, agencies are supposed to consider "whether the action is related to other actions with individually insignificant, but cumulatively significant impacts."<sup>484</sup> They should also consider whether the effects on the quality of the environment are likely to be highly controversial,<sup>485</sup> as well as the precedential effects of the action, and whether the action represents a decision in principle about a future consideration.<sup>486</sup> Agencies should also consider the degree to which the action may adversely affect an endangered or threatened species and their critical habitat designated under the Endangered Species Act.<sup>487</sup> While no one factor is dispositive for significance, the number of applicable factors in the present IHA scheme leans toward a finding of significance and the requirement to conduct a full EIS and not just an EA.

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<sup>480</sup> 40 C.F.R. § 1508.27; *see also* DANIEL R. MANDELKER, ET. AL, NEPA LAW AND LITIGATION 533 (2016 ed.).

<sup>481</sup> 40 C.F.R. § 1508.27(a).

<sup>482</sup> Oceana, *Grassroots Opposition to Offshore Drilling and Exploration in the Atlantic Ocean and Eastern Gulf of Mexico*, <http://usa.oceana.org/climate-and-energy/grassroots-opposition-offshore-drilling-and-exploration-atlantic-ocean-and> (last visited July 21, 2017).

<sup>483</sup> 40 C.F.R. § 1508.27(b).

<sup>484</sup> 40 C.F.R. § 1508.27(b)(7).

<sup>485</sup> 40 C.F.R. § 1508.27(4).

<sup>486</sup> 40 C.F.R. § 1508.27(b)(6).

<sup>487</sup> 40 C.F.R. § 1508.27(b)(9).

**a. The degree to which the effects on the quality of the human environment are likely to be highly controversial**

Granting the IHA applications and the subsequent effects is highly controversial. A proposed action is highly controversial when there is “a substantial dispute [about] the size, nature, or effect of the major Federal action rather than the existence of opposition to a use.”<sup>488</sup> A substantial dispute about the effects of G&G surveying on marine mammals exists between the scientific community and others. In the 2014 Atlantic Final Programmatic EIS, BOEM concluded that the effects to marine mammals would be moderate (in NEPA terms).<sup>489</sup> But, in 2015, 75 scientists sent a letter to President Obama arguing that seismic surveying may have significant, long-term effects on marine mammals.<sup>490</sup> In addition, as the Fisheries Service recognized in the Ocean Noise Strategy Roadmap, there is a need for the Fisheries Service, including representatives from the National Marine Fisheries Science centers, National Marine Sanctuaries, and National Ocean Service, as well as federal partners to fill shared critical scientific knowledge gaps and build an understanding of noise impacts on protected species and acoustic habitats.<sup>491</sup> The lack of updated Level B acoustic guidance is another indication of the controversial nature of this area of science. Another example can be found simply by reviewing the IHA applications, which are confounding at best, as each one uses different data sets and none of the applications use the best scientific evidence available in all instances to determine marine mammal take or abundance estimates. *CetMap* data is currently the best scientific evidence available and yet all the IHA applicants still use stock assessment data, at least in part. These substantial disputes about the effect of G&G surveying on marine mammals make the action controversial; therefore, an EIS is warranted for each IHA application.<sup>492</sup>

**b. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration**

Agencies should also evaluate the precedential effect of their decisions when determining significance, and granting IHAs in the Atlantic for G&G surveying would have a precedential effect. The decision not to prepare an impact statement is precedential if the agency could rely on that decision to make the same decision in future actions.<sup>493</sup> Since the Atlantic has not been open to oil and gas activities since the 1980s, granting one or more of the IHAs would set a precedent for future activities in this region. If the Fisheries Service concluded that the proposed IHAs would not have significant impacts on the marine environment, specifically on marine mammals,

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<sup>488</sup> *Anderson v. Evans*, 371 F.3d 475, 489 (9th Cir. 2004).

<sup>489</sup> BOEM 2014 Final Programmatic EIS at 4-64.

<sup>490</sup> Letter from Christopher Clark, et al., to President Barack Obama (Mar. 5, 2015), [http://docs.nrdc.org/wildlife/files/wil\\_15030401a.pdf](http://docs.nrdc.org/wildlife/files/wil_15030401a.pdf).

<sup>491</sup> NOAA, *Ocean Noise Strategy Roadmap* at 1, 7, 22, 24, 56, 61 (Sept. 2016), [http://cetsound.noaa.gov/Assets/cetsound/documents/Roadmap/ONS\\_Roadmap\\_Final\\_Complete.pdf](http://cetsound.noaa.gov/Assets/cetsound/documents/Roadmap/ONS_Roadmap_Final_Complete.pdf).

<sup>492</sup> See *Sierra Club v. United States Forest Service*, 843 F.2d 1190, 1193 (9th Cir. 1988) (holding that the dispute between conservationists, biologists, and other experts over the Forest Service’s conclusion that there would be no significant effects on sequoias from logging was “precisely the type of ‘controversial’ action for which an EIS must be prepared.”).

<sup>493</sup> DANIEL R. MANDELKER, ET. AL, *NEPA LAW AND LITIGATION* 536 (2016 ed.).

then the agency may “feel bound” to make the same decision for future IHA applications in the same region for the same activities.<sup>494</sup>

**c. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.**

The severity of the impact is likely significant when the five IHAs are analyzed cumulatively, which the regulations guide the agency to do. Individually, one IHA may not have a significant impact (though, query whether this is true in light of the small numbers / negligible impact discussion above). Collectively, however, G&G surveying in the Atlantic does have an impact on marine mammals that the agency should deem significant. The agency cannot avoid the significance of the G&G surveying by breaking down the action into small component parts, or segmenting environmental review.<sup>495</sup> As discussed more below, the five pending IHA applications should be reviewed collectively, because the cumulative impacts of five simultaneous surveying activities do have a significant impact on the human environment.

**d. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

Agencies must also consider the impact the action will have on an endangered or threatened species or its critical habitat listed under the Endangered Species Act when determining significance. There are six species in the action area that are listed under the Endangered Species Act: North Atlantic right whales, blue whales, fin whales, sei whales, sperm whales, and West Indian manatees.<sup>496</sup> Arguably, the most critical species is the North Atlantic right whale. The North Atlantic right whale is particularly susceptible to seismic surveying, because the sounds from the airguns create a masking effect, making it difficult for the whales to perceive calls.<sup>497</sup> The 2016 Stock Assessment Report stated that the potential biological removal rate of the species is one,<sup>498</sup> which is the maximum number of individuals that can be removed from the population without affecting the stocks ability to reach or maintain its optimum sustainable population.<sup>499</sup> This means that the population numbers are so low that even one whale death will

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<sup>494</sup> See *Friends of the Earth v. United States Army Corps of Eng'rs*, 109 F. Supp. 2d 30, 43 (D.D.C. 2000) (discussing the precedential effect of permitting a casino along the Mississippi coast, noting that “[w]ith the proliferation of casinos along the Mississippi coast, the Corps may feel bound to the conclusions reached in the FONSI s issued in these cases, thereby allowing the FONSI s to serve as precedent for future casino projects.”).

<sup>495</sup> 40 C.F.R. §1508.27(7).

<sup>496</sup> BOEM Final Programmatic EIS at 4-27.

<sup>497</sup> Oceana Comment Letter re Atlantic G&G Permit Applications for Oil and Gas Development (Apr. 29, 2015) (on file with Oceana).

<sup>498</sup> Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western Atlantic Stock* at 12 (Feb. 2017), [https://www.nefsc.noaa.gov/publications/tm/tm241/8\\_F2016\\_rightwhale.pdf](https://www.nefsc.noaa.gov/publications/tm/tm241/8_F2016_rightwhale.pdf) (“The minimum population size is 440. The maximum productivity rate is 0.04, the default value for cetaceans. PBR for the Western Atlantic stock of the North Atlantic right whale is 1.”).

<sup>499</sup> Fisheries Service, *Protected Resources Glossary*, <http://www.nmfs.noaa.gov/pr/glossary.htm> (last updated May 7, 2014).

significantly harm the population.<sup>500</sup> The Fisheries Service must consider how the IHA applications will adversely affect these species, and there is ample scientific evidence explaining how seismic surveying negatively affects marine mammals. These effects on endangered marine mammals likely constitute a significant impact, which the Fisheries Service should thoroughly review in an EIS.

**e. Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.**

As discussed in detail above, issuance of IHA applications threatens a violation of the MMPA for several reasons. The IHA applicants have not used best available science in their applications to determine take estimates. The Fisheries Service, if it were to grant IHAs based on such deficient IHA applications, would also be in contradiction of the “best scientific evidence available” mandate in the MMPA. And, were the Fisheries Service to ignore the latest science and marine mammal maps, this, too, would constitute a violation of the MMPA’s best scientific evidence available” mandate. In addition, the IHA applicants are requesting takes that would neither be “small numbers” nor constitute a non-negligible impact in light of the potential biological removal levels of several marine mammal species proposed for taking – another violation of the MMPA. Finally, issuance of IHAs when LOAs should be required due to the “serious injury” and possible mortality to marine mammals is yet another violation of federal law.

The IHA applications have a significant impact on the human environment based on the factors laid out by CEQ. Substantial disputes about the effect of G&G surveying on marine mammals make the action controversial. As the Atlantic has not been open to seismic surveying since the 1980s, the Fisheries Service decision on these IHA applications could have a precedential effect and set a very low standard for IHA applications for G&G activities in the Atlantic. As noted above, the five currently pending IHA applications will have significant, cumulative impacts. Seismic surveying will have significant impacts on critically endangered species in the proposed project area. And, granting IHAs to take marine mammals threatens a violation of the MMPA. The agency should therefore do a full EIS for each IHA to ensure that the significant impacts of the pending IHA applications are thoroughly reviewed, as well as the alternatives. Ultimately, the Fisheries Service should designate the “No Action” alternative as its preferred alternative to protect marine mammals as required under the MMPA.

**2. The Fisheries Service Should Conduct a Programmatic Environmental Impact Assessment for IHA Applications in the Atlantic Because of the Cumulative and Similar Impacts of the Proposed Actions.**

The Fisheries Service should conduct a programmatic EIS for the five IHA applications in the Atlantic based on the CEQ scope regulations. Agencies must consider the range of actions and

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<sup>500</sup> Oceana Comment Letter re Atlantic G&G Permit Applications for Oil and Gas Development (Apr. 29, 2015) (on file with Oceana).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 82 of 99

impacts when determining the scope of their impact statements, i.e., when deciding whether to do a programmatic statement or individual statements. When an agency determines the scope of the impact statement, it must consider connected, cumulative, and similar actions.<sup>501</sup> Connected actions are actions that are closely related, which can occur if the actions automatically trigger other action that may require an EIS, cannot proceed unless other actions are taken previously or simultaneously, or if the actions are interdependent parts of a larger action.<sup>502</sup> Actions are cumulative if, when viewed with other proposed actions, they have cumulatively significant impacts that warrant discussing all the actions in the same impact statement.<sup>503</sup> Similar actions are actions that, when viewed with other reasonably foreseeable or proposed agency action, have similarities, such as common timing or geography, that the agency should analyze their environmental consequences together.<sup>504</sup> CEQ guidance also counsels agencies to conduct programmatic reviews when deciding to “proceed with multiple projects that are temporally or spatially connected and that will have a series of associated concurrent or subsequent decisions.”<sup>505</sup>

Ideally, the Fisheries Service would first conduct a programmatic EIS on the pending IHA applications, and then conduct a site-specific review for any subsequent IHA applications if needed. The pending IHA applications likely constitute both cumulative and similar actions based on the CEQ definitions. CEQ regulations define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions... Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”<sup>506</sup> In each EIS, the agency must consider the cumulative impact of the individual action on the surrounding environment. But, when multiple individual actions will have a cumulative impact on the same region, the agency should address the multiple actions in one programmatic EIS. For example, the Ninth Circuit requires agencies to prepare a single NEPA document when “the record raises ‘substantial questions’ about whether there will be ‘significant environmental impacts’ from the collection of anticipated projects.”<sup>507</sup> Following this reasoning, the Fisheries Service should review the five IHA applications in one EIS, because there are substantial questions about the significant impacts of the five G&G surveying projects. The 2014 Atlantic Final Programmatic EIS only discussed the impacts of seismic surveying in broad terms and did not analyze cumulative impacts from the five (and possibly more) G&G surveys currently proposed for the same region at approximately the same time. The 2014 Atlantic Final Programmatic EIS only discussed the cumulative impacts of other foreseeable activities in the area of interest, not the cumulative impacts of the five surveying projects occurring simultaneously. The Fisheries Service should therefore analyze the five IHA applications in one EIS, because they involve cumulative actions with cumulatively significant impacts.

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<sup>501</sup> 40 C.F.R. § 1508.25.

<sup>502</sup> 40 C.F.R. § 1508.25(a)(1)(i)–(iii).

<sup>503</sup> 40 C.F.R. § 1508.25(a)(2).

<sup>504</sup> 40 C.F.R. § 1508.25(a)(3).

<sup>505</sup> Michael Boots, Memorandum for Heads of Federal Departments and Agencies, Effective Use of Programmatic NEPA Reviews (Dec. 18, 2014) (on file with Oceana).

<sup>506</sup> 40 C.F.R. § 1508.7.

<sup>507</sup> *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 999 (9th Cir. 2004).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 83 of 99

Along with being cumulative, the actions are clearly similar. As the information below demonstrates, the pending IHA applications have proposed to conduct seismic surveys in approximately the same geographic location at overlapping, albeit now lapsed, timeframes:

- ION
  - Timeframe: July – December 2016<sup>508</sup>
  - Location: proposed survey area is off the U.S. east coast from ~38.5°N off Delaware to ~27.9°N off Florida, and from 20 km from the coast to >600 km from the coast.<sup>509</sup>
- Spectrum
  - Timeframe: February – July 2016<sup>510</sup>
  - Location: offshore of portions of the U.S. Atlantic coast within the Mid- and South Atlantic Planning Areas from Delaware to northern Florida as shown in Figure 1. Water depths in the survey grid range from approximately 30 to 5,410 m (98 to 17,749 ft). There will be no survey activity data collection performed in state waters with only survey tie-in lines that are perpendicular to the shore that approach the state-federal line and the eastern most survey lines extending out to the extended continental shelf boundary, located 350 nm from shore. The closest parallel line to shore is located approximately 35.7 km (19.3 nmi) from Hatteras Beach North Carolina's Eastern Shore and the furthest planned survey line located approximately 280 km (175 miles) offshore Hatteras Beach, North Carolina<sup>511</sup>
- TGS
  - Timeframe: February 2016 – January 2017<sup>512</sup>
  - Location: within and beyond the U.S. Exclusive Economic Zone (EEZ) (offshore to the extended continental shelf [200 nm limit]) waters of the northwestern Atlantic Ocean between the northern limit of 38.5°North (N) and the southern limit of 28°N<sup>513</sup>
- WesternGeco LLC
  - Timeframe: April 2016 – March 2017<sup>514</sup>

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<sup>508</sup> ION IHA Application at 10.

<sup>509</sup> *Id.*

<sup>510</sup> Spectrum IHA Application at 5.

<sup>511</sup> *Id.*

<sup>512</sup> TGS IHA Application at 10-11.

<sup>513</sup> *Id.*

<sup>514</sup> WesternGeco IHA Application at 10-11.



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 84 of 99

- Location: within and beyond the U.S. Exclusive Economic Zone (EEZ) (offshore to the extended continental shelf [200 nm limit]) waters of the northwestern Atlantic Ocean between the northern limit of 38°North (N) and the southern limit of 30°N<sup>515</sup>
- CGG
  - Timeframe: July 2016-December 2016<sup>516</sup>
  - Location: federal waters of the Mid- and South Atlantic region extending from Georgia and Virginia, which seismic activities occurring a minimum of 80 km (50 mi) from shore in water depths ranging between 100 m (328 ft) to over 5,000 m (16,404 ft).<sup>517</sup>

All the IHA applications propose to conduct surveys in the same geographic location; a stretch of the mid-Atlantic from Delaware to Florida.<sup>518</sup> And while the requested timeframes have now passed, they overlapped during the relevant year, and will likely overlap in the future if the IHA applications are allowed to be updated. These IHA applications involve multiple projects that are temporally and spatially connected, which makes a programmatic EIS the appropriate NEPA review level. The agency may prepare one NEPA document to support both programmatic and site-specific review, meaning that the agency could conduct a broader programmatic review of IHAs in the Atlantic (similar to its review in the Arctic and Gulf) and within that document address the five pending IHA applications.

### **3. Pursuant to CEQ guidance, the Fisheries Service should consider climate change in its NEPA review for the IHA applications.**

In August 2016, the CEQ published guidance for federal agencies on how they should consider climate change in their NEPA review process.<sup>519</sup> While this guidance was rescinded in Executive Order 13783,<sup>520</sup> the guidance provides a useful way for the Fisheries Service to analyze the impacts of climate change, as is still required under NEPA.<sup>521</sup> In its NEPA analysis for the IHA applications, the Fisheries Service must consider both the direct effect the IHAs will have on

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<sup>515</sup> *Id.*

<sup>516</sup> CGG IHA Application at 16.

<sup>517</sup> *Id.*

<sup>518</sup> Oceana, *Animated Maps Show Dolphins and Whales Threatened by Seismic Airgun Blasting in Atlantic Ocean* (Aug. 24, 2016), [http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?\\_ga=1.43826533.191812998.1462817124](http://usa.oceana.org/animated-maps-show-dolphins-and-whales-threatened-seismic-airgun-blasting-atlantic-ocean?_ga=1.43826533.191812998.1462817124).

<sup>519</sup> Christina Goldfuss, Memorandum for Heads of Federal Departments and Agencies: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews (Aug. 1, 2016) (on file with Oceana).

<sup>520</sup> Exec. Order No. 13,783 of Mar. 28, 2017, 82 Fed. Reg. 16,093, 16,094 (Mar. 31, 2017).

<sup>521</sup> *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9<sup>th</sup> Cir. 2008) (overturning a rule establishing Corporate Fuel Economy Standards, and holding that the NHTSA violated NEPA by failing to consider the impact of the rule on greenhouse gas emissions). “Environmental impact statements need to consider climate change and greenhouse gases in their environmental analysis.” DANIEL R. MANDELKER, ET. AL., *NEPA LAW AND LITIGATION* 757 (2016 ed.)

climate change, and how the result of granting the IHAs will impact climate change. While granting the IHA might not have attributable greenhouse gas emissions, if the G&G survey companies are granted the IHAs, and BOEM then grants the G&G permits, the subsequent exploration activities will have an effect on climate change, which the Fisheries Service can quantify. The fuel used by the ships will emit greenhouse gases, which can be directly quantified. And if the exploration leads to the discovery of large deposits of oil and gas, which is unlikely based on BOEM's own data,<sup>522</sup> the future impacts on climate change would be far greater. The Fisheries Service should be contemplating these impacts now, as well as how climate change may impact the project. BOEM already discussed some of the ways climate change could impact G&G activities in the 2014 Programmatic EIS.<sup>523</sup> Notably, the agency states that altered migratory routes of marine mammals are a reasonably foreseeable marine environmental change resulting from climate change.<sup>524</sup> The Fisheries Service must thoroughly consider how climate change could change marine mammal migratory routes, since changing migratory routes could impact seismic surveying.

### III. Endangered Species Act

*Prior* to making any decisions regarding the proposed IHAs, the Fisheries Service must update the 2013 Programmatic BiOp pursuant to Endangered Species Act Section 7(a)(2) to analyze the effect of seismic survey activities in the Mid- and South Atlantic planning areas.<sup>525</sup> BOEM and the Fisheries Service reinitiated consultations in 2015 to consider, among other changes, an expansion of critical habitat for the North Atlantic right whale.<sup>526</sup> We propose that the following issues be considered in any updated BiOp:

- Final rule designating critical habitat for the Northwest Atlantic distinct population segment (DPS) of loggerhead sea turtles (79 FR 39855);
- Final rule listing the Northwest Atlantic and Gulf of Mexico DPS of scalloped hammerhead shark as endangered (79 FR 38213);
- Proposed rule to expand designated critical habitat for the North Atlantic Right Whale (80 FR 9314); and
- Proposed listing of the following species under the ESA: (i) Caribbean electric ray (79 FR 4877); (ii) dwarf seahorse (77 FR 25687); (iii) bigeye thresher shark (80 FR 48061); (iv) common thresher shark (80 FR 11379); (v) porbeagle shark (80 FR 16356); (vi) smooth

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<sup>522</sup> BOEM, Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, 2016.

<sup>523</sup> BOEM 2014 Final Programmatic EIS at 3-50.

<sup>524</sup> *Id.*

<sup>525</sup> Fisheries Service 2013 Programmatic Biological Opinion.

<sup>526</sup> NGO Letter to BOEM and Fisheries Service (May 26, 2016), <https://www.nrdc.org/sites/default/files/atlantic-seismic-letter-narw-20160526.pdf> (requesting renewed environmental impact review of proposed G&G activities in the Mid- and South Atlantic and Endangered Species Act review to account for significant new information regarding the status of North Atlantic right whales).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 86 of 99

hammerhead shark (80 FR 48053); (vii) humpback whale (80 FR 22304); (vii) and green sea turtle (80 FR 51763).

In addition, in keeping with the requirement to use “best scientific evidence available,” the Fisheries Service must closely review and consider the results of any new scientific studies regarding the effects of seismic airgun surveys on endangered species in the Atlantic and/or the ecosystems on which they rely, including a new study showing that seismic airgun surveys negatively impacts zooplankton, which form the base of global marine ecosystems.<sup>527</sup> Before finalizing updates to the BiOp, the Fisheries Service should also consider another recent study about the effect of seismic surveys on marine turtles.<sup>528</sup> Once the new BiOp is released, BOEM should update the Atlantic PEIS and address all deficiencies noted above. The update of the Atlantic PEIS must happen *before* the Fisheries Service can consider tiering its NEPA analysis for the IHA applications.

### IV. Magnuson-Stevens Act

*Prior* to making any decisions regarding the five proposed IHAs, in accordance with the Magnuson-Stevens Act, the Fisheries Service must consult with relevant staff in the agency regarding the adverse effects seismic airgun surveys may have on essential fish habitat.<sup>529</sup> In the context of these consultations and in compliance with the requirement to use the “best scientific evidence available,” the Fisheries Service must review the latest scientific studies including a recent study, which found that during seismic surveying, reef-fish abundance declined by 78 percent.<sup>530</sup> In addition, the Fisheries Service should heavily weigh the concerns expressed in recent letters from each of the three regional fishery management councils about the adverse effects of oil and gas exploration and development on recreational and commercial fisheries and the regional economies that depend on these fisheries in the Atlantic.<sup>531</sup>

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<sup>527</sup> Robert McCauley et al., *Widely used marine seismic survey air gun operations negatively impact zooplankton*, NATURE ECOLOGY & EVOLUTION (June 22, 2017) (stating that “all larval krill were killed after air gun passage”); Elizabeth Ouzts, *Advocates: New study bolsters case for Trump to reverse course on offshore oil exploration*, SOUTHEASTERN ENERGY NEWS, <http://southeastenergynews.com/2017/06/28/advocates-new-study-bolsters-case-for-trump-to-reverse-course-on-offshore-oil-exploration/> (June 28, 2017) (noting that NOAA spokesperson, Jennie Lyons, encouraged comment on seismic surveys, including the study on zooplankton).

<sup>528</sup> Sarah Nelms et al., *Seismic surveys and marine turtles: An underestimated global threat?*, 193 BIOLOGICAL CONSERVATION 49-65 (2016).

<sup>529</sup> 16 U.S.C. § 1855(b)(2) (stating that “[e]ach Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or *proposed to be authorized*, funding, or undertaken by such agency that may adversely affect any essential fish habitat identified under this Act.”)(emphasis added).

<sup>530</sup> Avery Paxton et al., *Seismic survey noise disrupted fish use of a temperate reef*, 78 MARINE POLICY 68, 71 (2017).

<sup>531</sup> Letter from the New England Fishery Management Council to Secretary Zinke, cc’ing Assistant Administrator for NOAA Fisheries, Chris Oliver; Director of NOAA Office of Protected Resources, Donna Wieting; Director of NOAA Office of Habitat Conservation, Patricia Montanio (June 29, 2017), [http://usa.oceana.org/sites/default/files/662/nefmc\\_letter\\_2017-06-29.pdf](http://usa.oceana.org/sites/default/files/662/nefmc_letter_2017-06-29.pdf); Letter from the Mid-Atlantic Fishery Management Council to Secretary Zinke, cc’ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/mafmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/mafmc_letter_2017-04-25.pdf); Letter from the South Atlantic Fishery Management Council to Secretary Zinke, cc’ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/safmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/safmc_letter_2017-04-25.pdf).

## **V. Coastal Zone Management Act**

*Prior* to issuing any decision on the proposed IHAs, pursuant to the Coastal Zone Management Act, the Fisheries Service must complete all coordination and consistency reviews with coastal zone management programs of Atlantic coastal states, including Maryland and Delaware.<sup>532</sup>

## **VI. National Marine Sanctuaries Act**

As the National Marine Sanctuaries Act makes it unlawful for any person to “destroy, cause the loss of, or injure any sanctuary resource,” the Fisheries Service’s proposed 15 km buffer around the boundaries of Gray’s Reef and Monitor National Marine Sanctuaries, located along the Atlantic coast, is insufficient to adequately safeguard these marine protected areas.<sup>533</sup> Seismic airgun blasts are loud, repetitive, explosive sounds. Because sound travels so efficiently underwater, seismic airgun blasts can be heard far from their sources – sometimes more than 2,500 miles away.<sup>534</sup> The IHA applications currently under consideration by the Fisheries Service would allow for temporally and spatially overlapping seismic surveys along the Atlantic coast that would result in harmful cumulative impacts to marine life. The proposed seismic airgun surveys would occur in an area twice the size of California, 330,032 square miles, spanning from Delaware south to central Florida.<sup>535</sup> Considering the size of the proposed survey area and the distance that seismic airgun blasts travel, the Fisheries Service should also coordinate with sanctuary managers for and arrange for mitigation measures to protect the Stellwagen Bank National Marine Sanctuary, and the Florida Keys National Marine Sanctuary.<sup>536</sup>

## **VII. Administrative Procedure Act**

In accordance with the Administrative Procedures Act as well as the Marine Mammal Protection Act regulations, the Fisheries Service should provide a separate 30-day comment period for each of the proposed IHAs.<sup>537</sup> While Oceana appreciates the opportunity to comment on the five proposed IHAs (860 pages), the BOEM 2014 PEIS (2,158 pages), and the Federal Register notice itself (91 pages) as well as numerous referenced sources, the 30-day comment period, extended by 15 days, is entirely too short to allow the public sufficient time to review over 3,500 pages of technical materials and comment in a meaningful manner. In light of the requirements of the Administrative Procedure Act and the Marine Mammal Protection Act, the Fisheries

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<sup>532</sup> 16 U.S.C. § 1456(c)(2), (3) (requiring Federal agencies undertaking any development project in the coastal zone of a state to “insure that the project is, to the maximum extent practicable, consistent with the enforceable policies of approved State management programs”).

<sup>533</sup> 82 Fed. Reg. 26,244, 26,266 (June 6, 2017); 16 U.S.C. § 1436(1) (stating that “it is unlawful for any person to – destroy, cause the loss of, or injure any sanctuary resources managed under law or regulations for that sanctuary”).

<sup>534</sup> Sharon Nieuwkerk, et al., *Sounds from airguns and fins whales recorded in the mid-Atlantic Ocean, 1999-2009*, 131 J. ACOUSTIC. SOC’Y. AM. 1102, 1102 (Feb. 2012),

<sup>535</sup> BOEM 2014 Final PEIS at Section 4.2 (noting that “the area covered by the Programmatic EIS (‘Area of Interest’ or ‘AOI’) extends from the mouth of the Delaware Bay to just south of Cape Canaveral, Florida and from the shoreline (excluding estuaries) to 648 kilometers (km) (403 miles [mi]) from shore,” with the total AOI of 854,779 km<sup>2</sup> (330,032 mi<sup>2</sup>)).

<sup>536</sup> NOAA, Office of National Marine Sanctuaries, *National Marine Sanctuaries: Visit*, <http://sanctuaries.noaa.gov/visit/#locations> (last visited July 20, 2017).

<sup>537</sup> 5 U.S.C. § 553; 50 C.F.R. § 216.104(b)(1), (2) (stating that for “a” proposed IHA (i.e., singular), the Fisheries Service “will invite information, suggestions, and comments for a period not to exceed 30 days”).

Service should provide 30 days for *each* of the five proposed IHAs, and this timeframe should not overlap to allow the public sufficient time to comment on each proposed IHA. Oceana urges the Fisheries Service to further extend the comment period to allow for five consecutive 30-day comment periods (one for each proposed IHA). To comply with the curtailed 45-day comment period, however, Oceana submits this comment letter.

### **VIII. Recommendations Related to Mitigation Measures**

Finally, in the event the Fisheries Service does not deny the IHA applications (and, again, the agency should deny them), Oceana believes the proposed mitigation measures are entirely inadequate. Oceana's recommendations for improving mitigation measures include:

- Permit only one seismic survey covering the proposed survey area;
  - The proposed mitigation strategy does not account for cumulative impacts. Five seismic companies have applied for IHAs and could be conducting seismic airgun surveys simultaneously in the Atlantic. The mitigation measures do not specify that the multiple vessels coordinate in space or time. Estimated takes for each of the five permits, as listed in the proposed IHAs already violate the “small numbers” and “negligible impacts” provisions of the MMPA, and the number of marine mammal takes will much larger when summed across all five permits. For this reason, only one seismic survey should be done for the proposed survey area. As was done for the Gulf of Mexico Draft PEIS, IHA applicants should be required to demonstrate that a proposed seismic airgun survey will not lead to duplicative seismic data acquisition.<sup>538</sup>
- Make the seismic survey data available to industry, government (federal, tribal, state and local), and the public so that all stakeholders can make an informed cost-benefit analysis and decide whether offshore drilling should be allowed off the Atlantic coast;
- Do not consider “practicability for the applicant” to be a driving factor in setting mitigation requirements.<sup>539</sup>
- Hire visual and passive acoustic observers via an independent third-party observer provider and require scientifically-founded and standardized training and performance;
  - Use a third-party observer provider to employ independent, dedicated, trained visual and passive acoustic monitoring protected species observers that have passed an approved training program. The third-party observer program should be provided through a third-party contractor, the Fisheries Service, BOEM, or a designated nongovernmental organization and funded by the seismic permit applicants. The standards of the approved training program should be determined by the Fisheries Service or another qualified third-party organization.

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<sup>538</sup> 2016 Gulf Draft PEIS at 2-39–2-40, Appendix L at L-11.

<sup>539</sup> 82 Fed. Reg. 26,244, 26,250 (June 6, 2017).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 89 of 99

- Require at least three visual protected species observers per watch on a survey vessel to maximize the probability of sighting all marine mammals in the seismic survey area and to fully meet scientifically-based data collection requirements;
- Require at least three passive acoustic monitoring protected species observers per watch on a survey vessel to maximize the probability of acoustically detecting all marine mammals in the survey area via properly deployed and operated acoustic recording equipment that fully meets scientifically-based data collection requirements;
  - All passive acoustic monitoring operators should be required to meet standards set by marine mammal acoustics experts in the Fisheries Service, BOEM, or the Bureau of Safety and Environmental Enforcement, including deploying and operating passive acoustic monitoring equipment, using software to detect vocalizations, and identifying marine mammal species and proximity.
  - Passive acoustic monitoring equipment should be monitored to confirm that it meets the standards required in the IHAs for “the use of calibrated hydrophone arrays with full system redundancy to detect, identify and estimate distance and bearing to vocalizing cetaceans, to the extent possible.”<sup>540</sup> Formal standards for PAM use should be developed and required by NMFS or BOEM, including “that vessel self-noise assessments are undertaken during mobilization in order to optimize PAM array configuration according to the specific noise characteristics of the vessel and equipment involved, and to refine expectations for distance/bearing estimations for cetacean species during the survey.”<sup>541</sup>
- Monitor visual and passive acoustic observer efforts on a weekly, if not daily, basis by reviewing interim observer reports, paying close attention to the number of marine mammals “taken.”
  - If there are any violations of required mitigation and/or if the allowable take is exceeded, the seismic survey company should be required to immediately cease seismic survey activity, and the IHA and seismic permit should be permanently revoked.
- Ensure visual monitoring and passive acoustic monitoring are always occurring simultaneously;
  - Visual monitoring should be used but should never be the only mitigation strategy because whales do not always surface.

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<sup>540</sup> 82 Fed. Reg. 26,244, 26,310 (June 6, 2017).

<sup>541</sup> *Id.*

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 90 of 99

- Seismic survey activities should not proceed when visual monitoring cannot detect marine mammals in the survey area visually, including at night or under any other conditions with poor visibility.
  - Visual monitoring should be included as one of the required mitigation strategies, but it should never be relied upon as the only mitigation strategy, because whales will not always surface predictably within view of the protected species observers.
  - If seismic airgun surveys are conducted during the night or in poor visibility conditions (e.g. fog), visual observers may not see marine mammals even if they are at the surface. Therefore, passive acoustic monitoring should always be conducted simultaneously with visual monitoring.
- Passive acoustic monitoring should be used but should never be the only mitigation strategy because whales do not always vocalize.
    - Marine mammals may be within acoustic range of the seismic airgun surveys, but if they are not vocalizing, they will not be detected by passive acoustic monitoring. Therefore, visual monitoring should always be conducted simultaneously with passive acoustic monitoring.
    - Another weakness with the proposed passive acoustic monitoring strategy is that the seismic airgun noise could mask whale vocalizations making it unlikely that passive acoustic monitoring operators would be able to hear whale vocalizations in real time while the airguns were firing. If the passive acoustic monitoring recordings were archived, it is possible that whale sounds could be filtered out later. Any filtering software, such as the filtering techniques recommended in the proposed IHAs,<sup>542</sup> that would allow passive acoustic monitoring operators to detect whale vocalizations in real-time should be vetted by acoustics experts and a standardized data processing protocol should be implemented to analyze acoustic data in real time to detect whale calls.
  - Stop all seismic survey activities when visual protected species observers cannot detect marine mammals in the survey area, including at night and under any other conditions with poor visibility;
  - Formulate federal standards for passive acoustic monitoring and software that ensures quality recording and detection of marine mammals;

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<sup>542</sup> 82 Fed. Reg. 26,244, 26,310 (June 6, 2017).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 91 of 99

- Require exclusion and buffer zones that are much larger than the 500m exclusion zone and 1000m buffer zone currently proposed, ideally based on an updated version of the Fisheries Service's 2016 Acoustic Guidance;
  - The distance of the buffer zone should be at least a range which includes protections for all hearing groups, including high-frequency cetaceans, based on the Fisheries Service's 2016 Acoustic Guidance (currently under review), which recommends a distance of at least 1,585 meters to protect all hearing levels among marine mammal species, including high-frequency cetaceans. This distance, at a minimum, should be used for a buffer zone.
  - The buffer zone should not be based on the distance that the protected species observer can see with the naked eye. Protected species observer viewing platforms should be elevated and the necessary equipment provided to allow observers to see at a range.
  - The exclusion zone should be created at a distance where cetaceans are most fully protected from seismic airgun noise.
- Implement a 60-minute shutdown following observation of a marine mammal in the survey area;
  - After implementation of a shutdown, the source should not be reactivated until 60 minutes after the animal(s) has been observed exiting the exclusion zone or following a 60-minute clearance period with no further observation of the animal(s).
  - Where there is no relevant zone (*e.g.*, shutdowns at any distance), a 60-minute clearance period should be observed following the last observation of the animal(s).
- Expand time-area closures to adequately account for presence of marine mammals over the course of a year, including calving and migration patterns;
  - The proposed time-area closures should be expanded, because the closures do not sufficiently account for the presence and behavior of marine mammals over the course of a year. The Fisheries Service should review individual life histories and use those as the first priority for creating these zones.
  - Seismic surveying should not be allowed within critical habitat areas or areas under special protection for endangered species.
  - Seismic surveying should not be allowed in biologically important areas and/or during seasons when animals are present in higher numbers than other times of the year and/or when animals are focused on important life activities such as calving or eating.



## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 92 of 99

- Create a year-round exclusion in the area off Cape Hatteras;
- Expand protection of North Atlantic right whale migratory habitat (the 37 km width based on SMA radii around ports does not reflect biology)
- Expand protections for other species, especially other endangered baleen whale species.
- Recognize and revise reliance on core areas derived from the Roberts et al. (2016) models as the Fisheries Service is omitting other important data.
- Recognize that a standard 25% core area is likely not generalizable across species in terms of meaningful protection.
- Reconsider ramp-up procedures as recent studies show that these procedures may displace marine mammals, potentially causing harm by interrupting foraging, causing stress, which can adversely affect reproduction and survival, or even push animals into areas where the risk of being caught as bycatch increases;<sup>543</sup>
  - Research does not demonstrate that ramping up causes marine mammals to leave the range of seismic airgun surveys, and even if it did, the animals would not be able to swim far enough in the 30/60 minutes allowed for the ramp-up procedure to escape the impacts of seismic noise.
  - In addition, if animals do move away from the seismic source as a result of ramping up, those behaviors should be counted as takes.
  - As the Fisheries Service concedes, ramp-up remains unproven as a mitigation measure,<sup>544</sup> and, indeed, a number of commenters have raised questions about the environmental costs and benefits, including the introduction of additional noise into the environment.
  - The Fisheries Service should give greater consideration to the requirements that apply after shutdown periods, such as when survey vessels have completed a line turn.
    - Under the Fisheries Service's proposal, applicants may recommence operations without first undergoing a ramp-up procedure after a shutdown of one half-hour or less, provided the shutdown is not due to marine mammal exclusion, as the agency believes that continuous visual and

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<sup>543</sup> Karin Forney et al., *Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity*, 32 ENDANG. SPECIES RES. 391-413 (May 8, 2017).

<sup>544</sup> 82 Fed. Reg. 26,244, 26,252 (June 6, 2017).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 93 of 99

passive acoustic monitoring is sufficient to maintain a cleared injury zone.<sup>545</sup>

- It is difficult to appreciate how visual monitoring could possibly be sufficient for that purpose at night, or in low-visibility conditions, and with a moving boat.
  - Passive acoustic monitoring, though beneficial, has, as the Fisheries Service recognizes, “significant limitations.”<sup>546</sup> Moreover, the use of a half-hour cut-off perversely incentivizes the continuous firing of the seismic airgun array during such events as line changes, so that operators may avoid the delay of ramp-up and pre-operational clearance.
  - The Fisheries Service should give careful consideration to the requirements that apply to the resumption of operations.
- Provide transparency by sharing AIS data, all seismic survey activities, and data recorded by visual and passive acoustic monitoring protected species observers with the public daily and live stream data as often as possible as well as archive the passive acoustic monitoring feed;
    - Upon issuance of the IHAs and BOEM seismic permits, the seismic companies must agree to release:
      - the name of the seismic survey vessel and any other chase or support vessels being used for the seismic airgun survey;
      - the starting date of the seismic airgun survey;
      - the location/port from which the seismic survey vessel will depart;
      - the overall survey track and route of the survey vessel;
      - daily notice of updates to the seismic survey track and route (e.g. updates by midnight the night before the survey route for the following day);
      - daily reports of visual observers;
      - daily reports of passive acoustic monitoring; and
      - simultaneous public transmission of the acoustic monitoring.
  - Require (not merely encourage) seismic survey companies to follow the objectives listed in the proposed IHAs for designing, turning, and operating acoustic sources:
    - Use the minimum amount of energy necessary to achieve operational objectives (*i.e.*, lowest practicable source level);
    - Minimize horizontal propagation of sound energy; and

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<sup>545</sup> 82 Fed. Reg. 26,244, 26,255 (June 6, 2017).

<sup>546</sup> 82 Fed. Reg. 26,244, 26,251 (June 6, 2017).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 94 of 99

- Minimize the amount of energy at frequencies above those necessary for the purpose of the survey.<sup>547</sup>
- Conduct independent third-party acoustic monitoring, funded by seismic survey applicants, before, during and after the surveys to collect data on the impacts of these activities on marine life.
  - Research could be carried about by academic scientists, the Fisheries Service or BOEM
  - To minimize takes of marine mammals at levels allowable under the MMPA, seismic airgun surveys must be prohibited. However, if seismic airgun surveys are approved in the Atlantic, then passive acoustic monitoring should be required so that the behavior of marine mammals in the presence of seismic airgun surveys can be documented.
  - Additionally, seismic survey operators should communicate when and where seismic surveys were conducted so that marine mammal behavior and seismic survey activity can be compared.
  - A proposal for passive acoustic monitoring follows:
    - Use passive acoustic technology (marine autonomous recording units (MARUs) and digital tags) to record marine mammal acoustic activity before, during, and after seismic airgun surveys.
    - Use marine autonomous recording units (MARUs): Cornell University (Chris Clark, Aaron Rice), Duke University (Doug Nowacek, Andy Read, and students) and the Northeast Fisheries Science Center (Sofie Van Parijs and staff) have an extensive array of underwater recording units deployed from New York to Florida, recording the sounds of whales and the marine environment.
    - The Fisheries Service and/or BOEM should coordinate with federal agencies and academic scientists currently or recently performing long-term passive acoustic monitoring within the areas that will be affected by the proposed seismic airgun surveys. By coordinating research efforts, the Fisheries Service and BOEM could ensure that there is continuous underwater recording in the areas proposed for seismic airgun surveys beginning as far before seismic surveys begin as possible and continuing for multiple years (ideally ten years) after completion of the seismic airgun surveys.

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<sup>547</sup> 82 Fed. Reg. 26,244, 26,256 (June 6, 2017).

## Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean

July 21, 2017

Page 95 of 99

- Funding for collecting and analyzing data would be funded by the seismic survey companies as a condition of receiving the IHAs from the Fisheries Service or the seismic permits from BOEM.
- Whale tagging: Scientists would tag whales (with digital tags that record ocean noise and track whale movement, depth, and location) before seismic airgun surveys begin so that individual whale behavior, movement, and vocalizations can be observed before, during, and after seismic activity.
- Rather than move forward with technology, which even its inventor deems outdated<sup>548</sup> – seismic airguns – work toward implementation of new, less harmful technologies, such as marine vibroseis.<sup>549</sup>

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<sup>548</sup> Geophysicist Stephen Chelminski invented seismic airguns in the mid-1960s to replace the use of dynamite for oil and gas exploration. Nowadays, he not only advocates against the use of seismic airguns but is also working on new technology to replace it called marine vibroseis. Chelminski stated that the “noise level is much, much less” and “[t]here’s no doubt that it will be better for marine life.” Brad Badelt, *The Inventor of the Seismic Air Gun Is Trying to Supplant His Controversial Creation*, HAKAI MAGAZINE: COASTAL SCIENCE AND STUDIES (Dec. 3, 2015), <https://www.hakaimagazine.com/article-short/inventor-seismic-air-gun-trying-supplant-his-controversial-creation>

<sup>549</sup> Alec J. Duncan et al., *A modelling comparison between received sound levels produced by marine Vibroseis array and those from an airgun array for some typical seismic survey scenarios*, 119 MARINE POLLUTION BULLETIN 277-288 (June 2017).

## CONCLUSION

Over 125 municipalities along the East Coast and 1,200 elected officials, as well as representation for over 41,000 businesses and 500,000 fishing families have publicly opposed seismic airgun surveys and/or offshore drilling, citing threats to marine life, commercial fisheries and coastal economies.<sup>550</sup> All three regional fishery management councils – New England, Mid- and South Atlantic – have sent letters to the Secretary of the Interior (cc'ing relevant leadership at the Fisheries Service) to express their concerns about the effects oil and gas exploration may have on recreational and commercial fisheries as well as the coastal economies that depend on these fisheries in the Atlantic.<sup>551</sup> On June 28, 2017, over 100 Congressional representatives, including representatives from each of the Atlantic coastal states, sent a letter to Secretary Zinke opposing the issuance of IHAs as well as seismic permits.<sup>552</sup>

The public voices opposing seismic airgun surveys must be heeded as should the law, which clearly requires the Fisheries Service to deny the proposed IHAs. Otherwise, the Fisheries Service will be in violation of the MMPA's statutory requirements that all takes be a "small number" and have a "negligible impact" on marine mammals. And by conducting a review of IHA applications that rely on outdated information, the Fisheries Service has failed to meet the MMPA's "best scientific evidence available" requirement. Moreover, as both BOEM and the Fisheries Service have already recognized, "injury" or "mortality" to marine mammals from sound, ship strikes and potentially even entanglements is a real possibility, so, if any incidental take authorization is to be issued at all, it must be an LOA, not an IHA.

In the event the Fisheries Service does not deny the proposed IHAs (and it should), Oceana urges the agency to fully comply with NEPA, the Endangered Species Act, the Magnuson-Stevens Act the Coastal Zone Management Act, the National Marine Sanctuaries Act, and the Administrative Procedures Act. As noted above, based on the Federal Register notice and documents relied upon therein (e.g., 2014 Atlantic Final Programmatic EIS), the agency is potentially in violation of every one of these statutes. Oceana also urges the Fisheries Service to implement our recommended mitigation measures in the manner described above.

We appreciate the opportunity to comment and thank you for your time. We will continue to be engaged in this process.

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<sup>550</sup> Oceana, *Grassroots Opposition to Offshore Drilling and Exploration in the Atlantic Ocean and Eastern Gulf of Mexico*, <http://usa.oceana.org/climate-and-energy/grassroots-opposition-offshore-drilling-and-exploration-atlantic-ocean-and> (last visited July 20, 2017).

<sup>551</sup> Letter from the New England Fishery Management Council to Secretary Zinke, cc'ing Assistant Administrator for NOAA Fisheries, Chris Oliver; Director of NOAA Office of Protected Resources, Donna Wieting; Director of NOAA Office of Habitat Conservation, Patricia Montanio (June 29, 2017), [http://usa.oceana.org/sites/default/files/662/nefmc\\_letter\\_2017-06-29.pdf](http://usa.oceana.org/sites/default/files/662/nefmc_letter_2017-06-29.pdf); Letter from the Mid-Atlantic Fishery Management Council to Secretary Zinke, cc'ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/mafmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/mafmc_letter_2017-04-25.pdf); Letter from the South Atlantic Fishery Management Council to Secretary Zinke, cc'ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/safmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/safmc_letter_2017-04-25.pdf).

<sup>552</sup> Letter from 103 Congressional Representatives to Secretary Ryan Zinke (June 28, 2017), [http://usa.oceana.org/sites/default/files/662/final\\_signed\\_-\\_zinke\\_-\\_atlantic\\_seismic\\_testing\\_-\\_june\\_28\\_2017.pdf](http://usa.oceana.org/sites/default/files/662/final_signed_-_zinke_-_atlantic_seismic_testing_-_june_28_2017.pdf) (last visited July 14, 2017); Letter from 103 Congressional Representatives to Secretary Ross (July 20, 2017) (on file with Oceana).

**Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

July 21, 2017

Page 97 of 99

Sincerely,

\_\_\_\_\_/s/\_\_\_\_\_

Nancy Pyne  
Acting Campaign Director, Climate and Energy

\_\_\_\_\_/s/\_\_\_\_\_

Beth Allgood  
US Country Director, International Fund for Animal Welfare

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

July 21, 2017

Page 98 of 99

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**Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

July 21, 2017

Page 99 of 99

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with maritime industry groups and local harbor safety committees and through public surveys. Information gathered indicates that the maritime public finds the new mobile and web access valuable and worthwhile. Mariners also told the Coast Guard that they did not find the existing routine VHF broadcasts to be very valuable; rather, the broadcasts, which are typically announced on VHF channel 16 and then switched to channel 22, were frequently noted as bothersome, because they tended to crowd out more valuable marine radio traffic on both VHF channels, creating “radio clutter.”

The Coast Guard is now considering phasing out routine VHF broadcasts in locations where digital mobile and web access is made available, and is seeking public comment. Before broadcasts in any particular location are phased out, mariners can anticipate that the Coast Guard will thoroughly announce and remind mariners about how to access the information by the new web and mobile methods. Only routine broadcasts are being considered for phase out; the Coast Guard will continue to choose to broadcast urgent and safety broadcasts on VHF as necessary.

This notice is issued under the authority of 14 U.S.C. 504(a)(16) and 5 U.S.C. 552(a).

Dated: July 6, 2021.

**Michael D. Emerson,**  
*Director, Marine Transportation Systems.*  
 [FR Doc. 2021-15059 Filed 7-14-21; 8:45 am]  
**BILLING CODE 9110-04-P**

**DEPARTMENT OF HOMELAND SECURITY**

**Coast Guard**

[Docket No. USCG-2020-0278]

**Port Access Route Study: Northern New York Bight**

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of availability of draft report and public meeting; request for comments.

**SUMMARY:** From June 29, 2020, through June 28, 2021, the Coast Guard conducted the Northern New York Bight Port Access Route Study (NNYBPARS) and is now requesting your comments on a draft version of the study report. The goal of the study is to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to New York and New Jersey and international

and domestic transit areas in the First District area of responsibility. To accomplish this goal, the Coast Guard has undertaken measures to determine whether existing or additional routing measures are necessary to improve navigation safety due to factors such as planned or potential offshore development, current port capabilities and planned improvements, increased vessel traffic, existing and potential anchorage areas, changing vessel traffic patterns, effects of weather, or navigational difficulty. We seek your comments on the content and development of the report.

**DATES:** Your comments and related material must reach the Coast Guard on or before August 30, 2021.

Although the Coast Guard prefers and highly encourages all comments and related material be submitted directly to the electronic docket, a public meeting will be held via webinar and teleconference to provide an opportunity for oral comments about the NNYBPARS draft report on Friday, July 30, 2020, beginning at 9 a.m. EST.

Additional public meetings dates may be added. Information as to the date, time, and location of these in person public meetings will be posted at <https://www.navcen.uscg.gov/?pageName=PARS> by July 23, 2021.

**ADDRESSES:** You may submit comments identified by docket number USCG-2020-0278 using the Federal portal at <https://www.regulations.gov>. See the “Public Participation and Request for Comments” portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

A virtual public meeting on Friday, July 30, 2020, beginning at 9 a.m. EST, will be held via webinar and teleconference.

Access information for this virtual public meeting will be posted at <https://www.navcen.uscg.gov/?pageName=PARS> by July 23, 2021.

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this notice, contact Mr. Craig Lapiejko, Waterways Management at First Coast Guard District, telephone (617) 223-8351, email [craig.d.lapiejko@uscg.mil](mailto:craig.d.lapiejko@uscg.mil).

**SUPPLEMENTARY INFORMATION:**

**I. Table of Abbreviations**

- ACPARS Atlantic Coast Port Access Route Study
- AIS Automatic Identification System
- COMDTINST Commandant Instruction
- DHS Department of Homeland Security
- EEZ Exclusive Economic Zone
- IMO International Maritime Organization
- MTS Marine Transportation System
- NAD83 North American Datum of 1983

- NNYB Northern New York Bight
- PARS Port Access Route Study
- PWSA Ports and Waterways Safety Act
- TSS Traffic Separation Scheme
- USCG United States Coast Guard

**II. Background and Purpose**

The Ports and Waterways Safety Act (46 U.S.C. 70003(c)) requires the Coast Guard to conduct a Port Access Route Study (PARS), *i.e.*, a study of potential traffic density and the need for safe access routes for vessels. Through the study process, the Coast Guard coordinates with Federal, State, local, tribal and foreign state agencies (as appropriate) to consider the views of maritime community representatives, environmental groups, and other interested stakeholders. The primary purpose of this coordination is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as construction and operation of renewable energy facilities and other uses of the Atlantic Ocean in the study area.

In 2019, the Coast Guard announced a new study of routes used by ships to access ports on the Atlantic Coast of the United States in the **Federal Register** (84 FR 9541; March 15, 2019). This new study supplements and builds upon the ACPARS by conducting a series of PARS to examine ports along the Atlantic Coast that are economically significant or support military or critical national defense operations and related international entry and departure transit areas that are integral to the safe and efficient and unimpeded flow of commerce to/from major international shipping lanes. The NNYBPARS is one of several studies being conducted.

On June 29, 2020, the First Coast Guard District published a notice of study and public meetings; request for comments entitled “Port Access Route Study (PARS): Northern New York Bight” in the **Federal Register** (85 FR 38907) to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to New York and New Jersey and international and domestic transit areas in the First District area of responsibility.

The public was afforded a 60-day comment period, and two virtual public meetings were held via teleconference and webinar to receive public input. The Coast Guard received 25 comments to this document in response to our **Federal Register Notice**, public meetings and other outreach efforts. All comments and supporting documents to this document are available in a public

docket and can be viewed at <http://www.regulations.gov>.

On April 12, 2021, we published a supplemental notice of study; request for comments entitled “Port Access Route Study (PARS): Northern New York Bight” in the **Federal Register** (86 FR 18996) seeking additional information.

The public was afforded a 30-day comment period. The Coast Guard received five comments to this document in response to our **Federal Register** Notice, and other outreach efforts. All comments and supporting documents to this document are available in a public docket and can be viewed at <http://www.regulations.gov>.

During both comment periods a total of 30 comments were submitted by representatives of the maritime community, wind energy developers, non-governmental organizations, Federal and State governmental agencies, and private citizens.

Of the thirty comments, fourteen requested additional routing measures be established, twelve expressed concerns that wind farm installations will negatively affect vessel’s marine radar performance, eight requested setback/buffer zones, six requested anchorages be designated, six requested additional meetings, three requested alteration of existing routing measures, and three requested expanding Vessel Traffic Services.

A synopsis of the comments and copies of the Coast Guard’s Public outreach can be found in the report. The Coast Guard is opening this third and final NNYBPARS comment period to facilitate transparent public discussions on the information above as well as the draft report findings to date.

### III. Information Requested

Do you agree or disagree with the draft report’s recommendations, propose actions, or continued actions, and if so, why?

### V. Public Participation and Request for Comments

We encourage you to comment on the content and development of the report through the Federal eRulemaking Portal at <https://www.regulations.gov>.

*A. Viewing the draft version of the report:* To view the draft version of the NNYBPARS report in the docket, go to <http://www.regulations.gov>, and insert “USCG–2020–0278” in the “search box.” Click “Search”. Then scroll down looking of the document entitled “DRAFT REPORT Northern New York Bight PARS June 29, 2021” under the document type “Supporting & Related Material.”

*B. Submitting Comments:* To submit your comment online, go to <http://www.regulations.gov>, and insert “USCG–2020–0278” in the “search box.” Click “Search”. Then click “Comment.” The “Comment” button can be found on the following pages:

- Docket Details page when a document within the docket is open for comment,
- Document Details page when the document is open for comment, and
- Document Search Tab with all search results open for comment displaying a “Comment” button.

Clicking “Comment” on any of the above pages will display the comment form. You can enter your comment on the form, attach files (maximum of 20 files up to 10MB each), and choose whether to identify yourself as an individual, an organization, or anonymously. Be sure to complete all required fields depending on which identity you have chosen. Once you have completed all required fields and chosen an identity, the “Submit Comment” button is enabled. Upon completion, you will receive a Comment Tracking Number for your comment. For additional step by step instructions, please see the Frequently Asked Questions page on <http://www.regulations.gov> or by clicking <https://www.regulations.gov/faq>.

We accept anonymous comments. Comments we post to <http://www.regulations.gov> and will include any personal information you have provided. For more about privacy and submissions to the docket in response to this document, see DHS’s eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

We review all comments and materials received during the comment period, but we may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

*C. How do I find and browse for posted comments on Regulations.gov.* On the previous version of *Regulations.gov*, users browse for comments on the Docket Details page. However, since comments are made on individual documents, not dockets, new *Regulations.gov* organizes comments under their corresponding document. To access comments and documents submitted to this draft version of the study report go to <http://www.regulations.gov>, and insert “USCG–2020–0278” in the “search box.” Click “Search”. Then scroll down to and click on the “notice” entitled “Port Access Route Study: Notice of availability of draft report and public information session; request for comments.” This will open to the

“Document Details” page. Then click on the “Browse Comments” tab. On the comment tab, you can search and filter comments. *Note:* If no comments have been posted to a document, the “Comments” tab will not appear on the Document Details page.

*D. If you need additional help navigating the new Regulations.gov.* For additional step by step instructions to submit a comment or to view submitted comments or other documents please see the Frequently Asked Questions (FAQs) at <http://www.regulations.gov/faq> or call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

*E. Privacy Act:* Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, *etc.*). You may review a Privacy Act, system of records notice regarding DHS’s eRulemaking in the March 11, 2020, issue of the **Federal Register** (85 FR 14226).

### VI. Future Actions

Any comments received will be reviewed and considered before a final version of the NNYBPARS is announced in the **Federal Register**.

This notice is published under the authority of 46 U.S.C. 70004 and 5 U.S.C. 552(a).

Dated: June 28, 2021.

**T.G. Allan Jr.**,  
Rear Admiral, U.S. Coast Guard, Commander,  
First Coast Guard District.

[FR Doc. 2021–14757 Filed 7–13–21; 4:15 pm]

**BILLING CODE P**

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–7037–N–03]

### 60-Day Notice of Proposed Information Collection: Comment Request; Implementation of the Housing for Older Persons Act of 1995 (HOPA), OMB Control No: 2529–0046

**AGENCY:** Office of the Assistant Secretary for Fair Housing and Equal Opportunity, HUD.

**ACTION:** Notice.

**SUMMARY:** The proposed reinstatement, without change, of an expired, previously approved information collection requirement established under the Housing for Older Persons Act of 1995 (HOPA) will be submitted to the Office of Management and Budget

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF SOUTH CAROLINA**

SOUTH CAROLINA COASTAL CONSERVATION LEAGUE;  
CENTER FOR BIOLOGICAL DIVERSITY; DEFENDERS OF  
WILDLIFE; NATURAL RESOURCES DEFENSE COUNCIL,  
INC.; NORTH CAROLINA COASTAL FEDERATION;  
OCEANA; ONE HUNDRED MILES; SIERRA CLUB; AND  
SURFRIDER FOUNDATION,

Plaintiffs,

v.

NATIONAL MARINE FISHERIES SERVICE; WILBUR ROSS,  
in his official capacity as the Secretary of Commerce;  
and CHRIS OLIVER, in his official capacity as the  
Assistant Administrator for Fisheries,

Defendants.

Civ. No. 2:18-cv-3326-RMG  
(Consolidated with 2:18-cv-3327-RMG)

**MEMORANDUM IN SUPPORT OF  
PLAINTIFFS' MOTION FOR A  
PRELIMINARY INJUNCTION**

**TABLE OF CONTENTS**

TABLE OF AUTHORITIES ..... iv

TABLE OF EXHIBITS ..... xi

TABLE OF ACRONYMS ..... xiii

INTRODUCTION .....1

BACKGROUND .....3

I. Factual Background .....3

II. Statutory and Regulatory Framework.....6

III. Procedural Background.....7

STANDARD OF REVIEW .....8

ARGUMENT .....9

I. Plaintiffs Are Likely to Succeed on the Merits of Their Claims .....9

A. NMFS’s Harassment Authorizations Violate the MMPA .....9

1. NMFS’s Interpretation of “Small Numbers” Is Unlawful .....10

2. NMFS’s Negligible Impact Analyses Irrationally Considered the Impacts of Each Survey in Isolation .....13

B. The Biological Opinion Violates the ESA.....16

1. NMFS Relied on Unfounded Assumptions and Violated Its Statutory Obligation to Rely on the Best Available Science.....17

a. NMFS Violated the ESA and Significantly Underestimated the Harm from Seismic Surveys by Relying on an Outdated Threshold that the Agency Itself Has Rejected.....17

b. NMFS Violated the ESA by Failing Adequately to Address the Risk of Repeated Harassment from Overlapping or Continuous Surveying .20

c. NMFS Failed to Consider the Effects of the Action Added to Other Present and Future Noise-Generating Activities.....21

|      |                                                                                                                                             |    |
|------|---------------------------------------------------------------------------------------------------------------------------------------------|----|
| 2.   | NMFS Violated the ESA by Authorizing an Agency Action It Did<br>Not Analyze .....                                                           | 23 |
| C.   | NMFS’s Failure to Prepare an EIS Violates NEPA.....                                                                                         | 25 |
| II.  | Absent Preliminary Injunctive Relief, Plaintiffs Will Suffer Irreparable Harm.....                                                          | 28 |
| A.   | Seismic Blasting Will Harass and Seriously Injure or Kill Marine Mammals .....                                                              | 29 |
| B.   | Harassing, Injuring, or Killing Marine Wildlife Will Irreparably Harm<br>Plaintiffs’ Members’ Ability to Enjoy and Study that Wildlife..... | 33 |
| III. | The Balance of Equities and the Public Interest Favor Injunctive Relief.....                                                                | 34 |
|      | CONCLUSION.....                                                                                                                             | 35 |

**TABLE OF AUTHORITIES**

**CASES**

*Amoco Prod. Co. v. Vill. of Gambell*,  
480 U.S. 531 (1987).....29

*Bennett v. Spear*,  
520 U.S. 154 (1997).....20

*Blue Mts. Biodiversity Project v. Blackwood*,  
161 F.3d 1208 (9th Cir. 1998) .....28

*CBD v. Nat’l Sci. Found.*,  
No. C 02-5065 JL, 2002 WL 31548073 (N.D. Cal. Oct. 30, 2002).....30

*CBD v. Rumsfeld*,  
198 F. Supp. 2d 1139 (D. Ariz. 2002) .....23

*CBD v. Salazar*,  
695 F.3d 893 (9th Cir. 2012) .....11

*Chevron U.S.A., Inc. v. NRDC*,  
468 U.S. 837 (1984).....10

*Concerned Friends of the Winema v. U.S. Forest Serv.*,  
No. 1:14-CV-737-CL, 2016 WL 10637010 (D. Or. Sept. 12, 2016),  
*adopted sub nom.* 2017 WL 5957811 (D. Or. Jan. 18, 2017).....14

*Conner v. Burford*,  
848 F.2d 1441 (9th Cir. 1988) .....23

*Conservation Council for Haw. v. NMFS*,  
97 F. Supp. 3d 1210 (D. Haw. 2015).....16, 24

*Dep’t of Transp. v. Pub. Citizen*,  
541 U.S. 752 (2004).....29

*Di Biase v. SPX Corp.*,  
872 F.3d 224 (4th Cir. 2017) .....8

*Dow AgroSciences LLC v. NMFS*,  
707 F.3d 462 (4th Cir. 2013) .....18

*Found. for N. Am. Wild Sheep v. U.S. Dep’t of Agric.*,  
681 F.2d 1172 (9th Cir. 1982) .....27

*Friends of Back Bay v. U.S. Army Corps of Eng’rs*,  
681 F.3d 581 (4th Cir. 2012) .....9, 25, 26, 28

*Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*,  
204 F.3d 149 (4th Cir. 2000) .....9

*Greenpeace v. NMFS*,  
80 F. Supp. 2d 1137 (W.D. Wash. 2000).....23

*Healthkeepers, Inc. v. Richmond Ambulance Auth.*,  
642 F.3d 466 (4th Cir. 2011) .....12

*Helvering v. Stockholms Enskilda Bank*,  
293 U.S. 84 (1934).....12

*High Sierra Hikers Ass’n v. Blackwell*,  
390 F.3d 630 (9th Cir. 2004) .....10

*Hill v. Coggins*,  
867 F.3d 499 (4th Cir. 2017) .....9

*Intertribal Sinkyone Wilderness Council v. NMFS*,  
970 F. Supp. 2d 988 (N.D. Cal. 2013) .....18, 19

*Klamath-Siskiyou Wildlands Ctr. v. BLM*,  
387 F.3d 989 (9th Cir. 2004) .....28

*Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*,  
463 U.S. 29 (1983).....8, 13, 19

*Nat’l Audubon Soc’y v. Dep’t of Navy*,  
422 F.3d 174 (4th Cir. 2005) .....29

*N.C. Wildlife Fed’n v. N.C. Dep’t of Transp.*,  
677 F.3d 596 (4th Cir. 2012) .....8

*NEC Corp. v. Intel Corp.*,  
No. C-84-20799-WPG, 1989 WL 67434 (N.D. Cal. Feb. 6, 1989).....12

*NRDC v. Evans*,  
279 F. Supp. 2d 1129 (N.D. Cal. 2003) .....11, 29, 30, 33, 34, 35

*NRDC v. Gutierrez*,  
No. C-07-04771 EDL, 2008 WL 360852 (N.D. Cal. Feb. 6, 2008) ..... 29-30, 34

*NRDC v. Rodgers*,  
381 F. Supp. 2d 1212 (E.D. Cal. 2005).....24

*NRDC v. Winter*,  
518 F.3d 658 (9th Cir.),  
*rev’d on other grounds*, 555 U.S. 7 (2008).....26, 27

*NWF v. NMFS*,  
886 F.3d 803 (9th Cir. 2018) .....29, 34

*NWF v. NMFS*,  
524 F.3d. 917 (9th Cir. 2008) .....21

*NWF v. NMFS*,  
254 F. Supp. 2d 1196 (D. Or. 2003) .....21

*Ocean Advocates v. U.S. Army Corps of Eng’rs*,  
402 F.3d 846 (9th Cir. 2005) .....26

*Ocean Mammal Inst. v. Gates*,  
546 F. Supp. 2d 960 (D. Haw. 2008),  
*modified in part*, No. CIV. 07-00254DAELEK,  
2008 WL 2020406 (D. Haw. May 9, 2008).....18, 26, 27, 34

*Ohio River Valley Env’tl. Coal., Inc. v. Kempthorne*,  
473 F.3d 94 (4th Cir. 2006) .....20



*Ohio Valley Envtl. Coal. v. U.S. Army Corps of Eng’rs*,  
528 F. Supp. 2d 625 (S.D.W. Va. 2007).....35

*Pac. Coast Fed’n of Fishermen’s Ass’n v. NMFS*,  
265 F.3d 1028 (9th Cir. 2001) .....22

*Red Wolf Coal. v. N.C. Wildlife Res. Comm’n*,  
No. 2:13-CV-60-BO, 2014 WL 1922234 (E.D.N.C. May 13, 2014) .....34

*Red Wolf Coal. v. U.S. Fish & Wildlife Serv.*,  
210 F. Supp. 3d 796 (E.D.N.C. 2016).....32, 34

*Robertson v. Methow Valley Citizens Council*,  
490 U.S. 332 (1989).....25, 35

*Rucker v. Willis*,  
484 F.2d 158 (4th Cir. 1973) .....26

*S.C. Dep’t of Wildlife & Marine Res. v. Marsh*,  
866 F.2d 97 (4th Cir. 1989) .....34

*Sierra Club v. U.S. Dep’t of Interior*,  
899 F.3d 260 (4th Cir. 2018) .....18

*Sierra Club v. Von Kolnitz*,  
No. 2:16-CV-03815-DCN, 2017 WL 3480777 (D.S.C. Aug. 14, 2017).....32

*Taniguchi v. Kan Pac. Saipan, Ltd.*,  
566 U.S. 560 (2012).....11

*Tenn. Valley Auth. v. Hill*,  
437 U.S. 153 (1978).....6, 29, 34, 35

*United States v. South Carolina*,  
720 F.3d 518 (4th Cir. 2013) .....8

*U.S. Air Tour Ass’n v. FAA*,  
298 F.3d 997 (D.C. Cir. 2002).....14

*Univ. of Tex. v. Camenisch*,  
 451 U.S. 390 (1981).....8

*Winter v. NRDC*,  
 555 U.S. 7 (2008).....8, 30

*Wild Fish Conservancy v. Salazar*,  
 628 F.3d 513 (9th Cir. 2010) .....23

STATUTES

5 U.S.C. §§ 701-06 .....8

5 U.S.C. § 705.....8

Marine Mammal Protection Act  
 16 U.S.C. § 1361.....6, 12, 15, 16

16 U.S.C. § 1362(18)(A).....6

16 U.S.C. § 1371(a) .....2, 6, 10, 12, 13

16 U.S.C. § 1372(a) .....6

Endangered Species Act  
 16 U.S.C. § 1536(a)(2).....2, 6, 16, 17

16 U.S.C. § 1536(b)(3)-(4) .....7

16 U.S.C. § 1536(b)(3)(A).....16

17 U.S.C. § 405(a)(1).....12

National Environmental Policy Act  
 42 U.S.C. § 4321.....7

42 U.S.C. § 4332(2)(C).....2, 7, 25, 28

REGULATIONS

40 C.F.R. § 1501.2 .....7

40 C.F.R. § 1502.5 .....7

40 C.F.R. § 1502.9(c)(1).....28

40 C.F.R. § 1506.3(a).....28

40 C.F.R. § 1508.7 .....28

40 C.F.R. § 1508.27 .....25, 26, 28

50 C.F.R. § 216.103 .....13

50 C.F.R. § 216.107(a).....12

50 C.F.R. § 402.02 .....6, 16

50 C.F.R. § 402.14(g) .....7, 16, 17

50 C.F.R. § 402.14(h) .....7, 16

50 C.F.R. § 402.16(c).....24

54 Fed. Reg. 40,338 (Sept. 29, 1989) .....15

82 Fed. Reg. 26,244 (June 6, 2017) .....14, 15

83 Fed. Reg. 29,212 (June 22, 2018) .....18, 19

83 Fed. Reg. 63,268 (Dec. 7, 2018) ..... *passim*

LEGISLATIVE HISTORY

H.R. Rep. 97-228 (1981).....16

## TABLE OF EXHIBITS

- Ex. 1 2018 Seismic Biological Opinion (Seismic BiOp)
- Ex. 2 2018 Annual Report Card, North Atlantic Right Whale Consortium (2018 North Atlantic Right Whale Report Card)
- Ex. 3 *With an unprecedented number of right whale deaths since 2017, watching for migrating right whales is more important than ever*, NOAA Press Release (Nov. 15, 2018) (NOAA Press Release)
- Ex. 4 *Lucky number 7: Seventh endangered right whale calf spotted off Atlantic Coast*, Panama City News Herald (Feb. 17, 2019)
- Ex. 5 *North Atlantic right whales could become extinct, U.S. officials say*, The Guardian (Dec. 10, 2017)
- Ex. 6 Atlantic Programmatic EIS (excerpted)
- Ex. 7 Environmental Assessment (excerpted)
- Ex. 8 NOAA Ocean Noise Strategy Roadmap (excerpted)
- Ex. 9 2013 Atlantic Programmatic BiOp (excerpted)
- Ex. 10 Jan. 5, 2017 BOEM Decision Memorandum re: Airgun Seismic Survey Permit Applications
- Ex. 11 Jan 13, 2017 NMFS Letters re: Status of Incidental Harassment Authorization Applications
- Ex. 12 Executive Order 13,795
- Ex. 13 2018 Biological Opinion on U.S. Navy Atlantic Fleet Training and Testing (Navy Atlantic Biological Opinion) (excerpted)
- Ex. 14 NRDC et al. Comments on Proposed Incidental Harassment Authorizations (July 21, 2017)
- Ex. 15 Marine Mammal Commission Comments on Proposed Incidental Harassment Authorizations (July 6, 2017)
- Ex. 16 Comments of Attorneys General of MD, CT, DE, DC, MA, NY, NC, PA, and RI on Proposed Incidental Harassment Authorizations (July 21, 2017)

- Ex. 17        Comments of Eight Prominent Marine Scientists on Proposed Incidental Harassment Authorizations (July 21, 2017)
  
- Ex. 18        Comments of Scientists from UNC Wilmington on Proposed Incidental Harassment Authorizations (July 5, 2017)
  
- Ex. 19        Mid-Atlantic Fishery Management Council Comments on Proposed Incidental Harassment Authorizations (July 5, 2017)

## TABLE OF ACRONYMS

|       |                                                 |
|-------|-------------------------------------------------|
| APA   | Administrative Procedure Act                    |
| BiOp  | Biological Opinion                              |
| BOEM  | Bureau of Ocean Energy Management               |
| CBD   | Center for Biological Diversity                 |
| EA    | Environmental Assessment                        |
| EIS   | Environmental Impact Statement                  |
| ESA   | Endangered Species Act                          |
| MMPA  | Marine Mammal Protection Act                    |
| NEPA  | National Environmental Policy Act               |
| NMFS  | National Marine Fisheries Service               |
| NOAA  | National Oceanic and Atmospheric Administration |
| NRDC  | Natural Resources Defense Council               |
| OCSLA | Outer Continental Shelf Lands Act               |

## INTRODUCTION

For over 30 years, bipartisan support has prevented oil and gas exploration and development off the Atlantic Coast. As a result, marine species, including the critically endangered right whale, have avoided harm from seismic airgun blasting, an exploration method that locates undersea oil and gas deposits by firing dozens of pressurized airguns into the ocean at once. Unless this Court intervenes, that is about to change. On November 30, 2018, the National Marine Fisheries Service (NMFS), following the President's directive to expedite offshore drilling, issued permits allowing five oil and gas exploration companies to blast seismic airguns up and down the Atlantic coastline. Seismic airguns create an underwater blast louder than all but military-grade explosives. Survey vessels fire these airguns as often as every ten seconds, twenty-four hours a day, for months and months on end. In total, the companies plan to fire airguns more than five million times. And they will begin firing as soon as next month.

For many marine species, seismic blasting will interfere with the ability to find food, care for their young, and communicate—behaviors critical to survival. NMFS concedes that marine mammals will suffer harms like these hundreds of thousands of times. For North Atlantic right whales and beaked whales, the consequences may be the most dire. Only a few hundred North Atlantic right whales remain; just over 100 are breeding females. Each year, right whales migrate south to the waters from South Carolina to Florida—the species' only known calving grounds—to give birth to their young. Given the species' precarious state, the loss of even one female right whale or calf could be disastrous. Despite acknowledging the risk that seismic blasting poses to right whales, including the potential for mother-calf separation, NMFS authorized surveys in the species' migration route and adjacent to their calving grounds. NMFS also authorized surveys in the waters off North Carolina's Outer Banks, home to beaked whales, some of the most acoustically sensitive marine mammals on Earth. These whales can react to loud sounds by

diving erratically, a behavior that can cause serious injury and death. Even so, NMFS authorized surveys that will repeatedly blast some of the world's densest beaked whale populations.

Plaintiffs seek to prevent seismic blasting from causing irreparable harm to marine wildlife, and are likely to prevail on their claims under three federal statutes. First, under the Marine Mammal Protection Act (MMPA), NMFS may authorize the harassment of only “small numbers” of marine mammals, and only if it has a “negligible impact” on marine mammal populations. 16 U.S.C. § 1371(a)(5)(D). Yet NMFS authorized each survey to harass up to 33 percent of many populations—in some cases tens of thousands of animals. NMFS then evaded the negligible-impact requirement by analyzing each survey's impact in isolation, ignoring the other four surveys. Second, the Endangered Species Act (ESA) protects endangered species like right whales against actions likely to jeopardize their survival and recovery. 16 U.S.C. § 1536(a)(2). To dodge that restriction, NMFS minimized the harm to right whales by using a scientific standard that the agency itself has rejected to define the number of animals that will be harmed and by ignoring the potential for surveys to overlap in time and space or be continuous in an area. Third, NMFS bypassed the National Environmental Policy Act's (NEPA) review process by asserting that opening these biologically rich waters to more than five million airgun blasts—harming marine mammals, sea turtles, and other marine life hundreds of thousands of times—was insignificant. *See* 42 U.S.C. § 4332(2)(C).

NMFS embraced these flawed legal interpretations—and repeatedly downplayed the widespread impacts of seismic blasting—to accommodate the administration's offshore drilling policy. Its decision to authorize seismic blasting cannot be reconciled with the protections embodied in the MMPA and ESA, nor with NEPA's mandate to fully consider significant environmental impacts like those here. Plaintiffs respectfully urge the Court to grant preliminary



relief enjoining seismic airgun blasting until NMFS complies with its statutory obligations.

## **BACKGROUND**

### **I. Factual Background**

*The Mid- and South Atlantic Ecosystem.* NMFS has authorized seismic surveys throughout the Mid- and South Atlantic Outer Continental Shelf planning areas, a coastal region that stretches from Delaware to Florida and provides unique habitat for marine life. *E.g.*, Notice of Issuance of Five Incidental Harassment Authorizations, 83 Fed. Reg. 63,268, 63,270 (Dec. 7, 2018); Ex. 1, Seismic Biological Opinion at 96-113 (hereafter Seismic BiOp).<sup>1</sup> At least 34 marine mammal species swim these waters. *See* 83 Fed. Reg. at 63,316. They include one of the most imperiled marine mammals in the world—the North Atlantic right whale. *Id.* Approximately 411 of these whales remain, including just over 100 breeding females. Ex. 2, 2018 North Atlantic Right Whale Report Card; Ex. 3, NOAA Press Release (Nov. 15, 2018). At least 20 have died since April 2017—an unprecedented number in modern times. *See* 83 Fed. Reg. at 63,319. New births have slowed, with no new calves sighted during the 2017–18 calving season, *see id.*, and only seven calves spotted so far this season, Ex. 4. In the words of one NMFS official, “[y]ou do have to use the extinction word, because that’s where the trend lines say they are.” *See* Ex. 5. Coastal waters from South Carolina to Florida provide the species’ only known calving grounds, and much of its migratory route lies within the survey area. *See* Seismic BiOp at 84. Right whales are present in the region year-round. *Id.*; 83 Fed. Reg. at 63,303, 63,321-23.

The region also includes an area near Cape Hatteras where the Labrador Current and Gulf Stream converge to form one of the most biologically productive marine ecosystems in the

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<sup>1</sup> Unless otherwise specified, all exhibits are attached to the Fort Declaration.

western North Atlantic. *See* 83 Fed. Reg. at 63,354; Read Decl. ¶ 24. This area is home to one of the densest populations of beaked whales ever observed. Read Decl. ¶¶ 13, 23. These whales live and feed in the area year-round. *See, e.g.*, 83 Fed. Reg. at 63,302.

***The Seismic Surveys.*** NMFS granted incidental harassment authorizations to five companies: Spectrum Geo Inc., TGS-NOPEC Geophysical Company (TGS), Ion GeoVentures, WesternGeco, LLC (Western), and CGG. *Id.* at 63,268, 63,381. Seismic survey ships each tow dozens of airguns charged with high-pressure air. Every ten seconds or so, each ship's airguns fire together, generating one of the loudest sounds in the ocean—effectively registering at up to 260 decibels, and powerful enough to penetrate thousands of meters below the ocean floor to identify potential subsurface oil and gas deposits. *See id.* at 63,269, 63,272 tbl. 1; Ex. 6, Atlantic Programmatic Environmental Impact Statement (EIS) at 4-133. The ships' paths will overlap, repeatedly blasting the region with a total of more than 5 million blasts in the coming months. *See* Bernard Decl. ¶¶ 12-18 (citing data from Ex. 7, Environmental Assessment (EA) at 26).

The intense, unceasing noise from seismic surveying will transform the Atlantic marine ecosystem. For marine life exposed at close range, it can cause death or permanent injury. Atlantic Programmatic EIS at H-8 to -9; 83 Fed. Reg. at 63,280, 63,338; Rice Decl. ¶¶ 24, 28. Seismic airgun blasting reduces the presence of certain fish species and may kill over 50 percent of zooplankton—the foundation of the marine food web—in the airguns' vicinity. 83 Fed. Reg. at 63,279-80; Rice Decl. ¶¶ 29-30.

Moreover, seismic surveys threaten the most important sense that marine species like whales and dolphins possess: their hearing. *E.g.*, 83 Fed. Reg. at 63,324. In the depths of the ocean, virtually every essential life function depends on the ability to hear. *See* Ex. 8, NOAA *Ocean Noise Strategy Roadmap* at 27. Seismic blasts will overwhelm marine animals' ability to

hear the world around them, interfering with their ability to find food and communicate with their young calves; the blasts will displace them from migration routes and prime habitat, and drive some to erratic behaviors that risk serious injury or death. *See* 83 Fed. Reg. at 63,276; Seismic BiOp at 172-84; Nowacek Decl. ¶¶ 7, 14-15; Rice Decl. ¶ 36; Tyack Decl. ¶¶ 9, 13-14. By NMFS’s own estimate, whales and dolphins will suffer these disturbances over 375,000 times. *See* 83 Fed. Reg. at 63,376 tbls. 15, 17. Because marine animals hear seismic airgun noise at biologically meaningful levels at distances of tens, hundreds, or even thousands of miles, Nowacek Decl. ¶ 11; Rice Decl. ¶¶ 11, 20, these effects will be felt across vast areas of ocean. Effects will be most severe when they happen repeatedly, as is likely with five surveys crisscrossing the area. *E.g.*, Watkins Decl., Fig. 1 (showing density and overlap of survey tracklines); Ex. 9, 2013 Atlantic Programmatic BiOp at 229; 83 Fed. Reg. at 63,278.

Right whales and beaked whales will suffer particularly severe harm. Seismic blasting “represents an existential threat” to right whales. Kraus Decl. ¶ 5. It will subject the most vulnerable right whales—reproductive females and calves—to a significant additional stressor, lowering the likelihood of reproduction in a population for which every calf is critical to the species’ survival and recovery. *Id.* ¶ 30; Nowacek Decl. ¶ 16. Seismic blasting will also interfere with communication between right whale calves and mothers, risking a premature separation that would be fatal for the calf. Kraus Decl. ¶ 27; Nowacek Decl. ¶ 32. Likewise, beaked whales are among the most acoustically sensitive marine mammals in the world. *See* 83 Fed. Reg. at 63,328, 63,365; Tyack Decl. ¶¶ 10, 14, 16. Because blasting will concentrate near Cape Hatteras, home to many beaked whales, its disruption of whales’ behavior—like interrupting their search for food by causing them to flee and avoid areas of seismic blasting—may injure or kill individual whales and harm entire populations. Read Decl. ¶¶ 13, 36, 39-40, 49.

## II. Statutory and Regulatory Framework

Seismic companies must receive two distinct approvals to begin blasting: a geological and geophysical permit from the Bureau of Ocean Energy Management (BOEM) authorizing the surveys, and a harassment authorization from NMFS authorizing the marine mammal harassment that seismic airgun blasting will cause. BOEM's permits are issued under the Outer Continental Shelf Lands Act (OCSLA). NMFS's harassment authorizations are issued under the MMPA. Both approvals are also governed by the ESA and NEPA.

**MMPA.** Congress enacted the MMPA to protect marine mammal populations “in danger of extinction or depletion as a result of man’s activities.” 16 U.S.C. § 1361(1). The heart of the MMPA is a prohibition on the “taking”—including the harassment—of marine mammals. *Id.* §§ 1371(a), 1372(a). Prohibited harassment includes any act that has the potential to injure a marine mammal or disrupt behavioral patterns like migration, breeding, and feeding. *Id.* § 1362(18)(A). Incidental harassment authorizations are a limited exception to this prohibition under which NMFS may allow activities that will harass marine mammals, so long as the harassment affects only “small numbers of marine mammals of a species or population stock” and will have only “a negligible impact on such species or stock.” *Id.* § 1371(a)(5)(D)(i)(I).

**ESA.** The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978) (“*TVA v. Hill*”). ESA section 7(a)(2) prohibits federal agencies from authorizing any action “likely to jeopardize the continued existence” of endangered or threatened species. 16 U.S.C. § 1536(a)(2). “Jeopardy” results when an action “reduce[s] appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02. When NMFS authorizes private actions that may affect threatened or endangered marine species, it must prepare a biological opinion that determines

whether the action, in the context of the existing status of the species, added to the environmental baseline, and “taken together with cumulative effects, is likely to jeopardize the continued existence of a species.” 50 C.F.R. § 402.14(g)(4), (h)(3); *see* 16 U.S.C. § 1536(b)(3)-(4). NMFS must use the best available scientific data to formulate this opinion. 50 C.F.R. § 402.14(g)(8).

**NEPA.** NEPA ensures that federal agencies take a hard look at the environmental consequences of their actions before they act. *See* 42 U.S.C. §§ 4321, 4332(2)(C); 40 C.F.R. §§ 1501.2, 1502.5. Federal agencies must prepare an EIS, a thorough environmental review document, for all “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). Only for insignificant actions may the agency rely on a less demanding EA.

### **III. Procedural Background**

Until recently, the Atlantic was closed to oil and gas production and exploration, including seismic surveys. *See* Seismic BiOp at 9. In 2014, BOEM prepared a Programmatic EIS that looked at the potential effects of a variety of exploration activities in the Atlantic from 2012-2020. *See* Atlantic Programmatic EIS at v. Shortly thereafter, the five survey companies in this case applied to BOEM and NMFS for permits to begin seismic surveying in the Atlantic. *See* 83 Fed. Reg. at 63,268. After careful review, in January 2017, BOEM denied those companies’ applications, concluding that “[d]eep penetration seismic airgun surveys come with an environmental burden,” and that the “value” of “the information from the surveys does not outweigh the risks,” including the “potential disadvantage to [the] small, critically endangered, and declining population [of North Atlantic right whales].” Ex. 10 at 1, 5-6. NMFS then halted consideration of the companies’ pending harassment authorization requests. Ex. 11.

Shortly after taking office, President Trump issued an Executive Order aimed at opening the nation’s oceans, including the Atlantic, to offshore drilling. *See* Ex. 12. At the President’s

direction, NMFS changed course, first proposing and then issuing harassment authorizations to all five companies. 83 Fed. Reg. at 63,273. NMFS also issued a biological opinion under the ESA, concluding that the five companies' surveys would not jeopardize any endangered or threatened species. *See* Seismic BiOp. Finally, NMFS prepared an EA, concluding that a site-specific EIS was not required because the five surveys would not have a "significant" impact. *See* EA. Once BOEM issues its own permits, seismic companies can begin airgun blasting in as little as 30 days. Cruickshank Decl. ¶ 9, ECF No. 72-1.

### STANDARD OF REVIEW

A preliminary injunction "preserve[s] the relative positions of the parties until a trial on the merits can be held." *United States v. South Carolina*, 720 F.3d 518, 524 (4th Cir. 2013) (quoting *Univ. of Tex. v. Camenisch*, 451 U.S. 390, 395 (1981)); *see* 5 U.S.C. § 705. A plaintiff is entitled to that remedy upon showing "that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Di Biase v. SPX Corp.*, 872 F.3d 224, 230 (4th Cir. 2017) (quoting *Winter v. NRDC*, 555 U.S. 7, 20 (2008)).

Plaintiffs' claims are reviewable under the Administrative Procedure Act (APA), which empowers courts to set aside agency actions that are "arbitrary and capricious" or "otherwise not in accordance with law." 5 U.S.C. §§ 701-706. Under the APA, a reviewing court "must not reduce itself to a 'rubber stamp' of agency action." *N.C. Wildlife Fed'n v. N.C. Dep't of Transp.*, 677 F.3d 596, 601 (4th Cir. 2012). The APA requires an agency to "articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotation marks omitted). An agency may not "entirely fail[] to consider an important aspect of the problem," or "offer[] an explanation for its decision that runs counter to

the evidence before the agency, or is . . . implausible.” *Id.* If an agency’s decision is “unreasonable as a matter of law, it is likely to have been arbitrary and capricious.” *Friends of Back Bay v. U.S. Army Corps of Eng’rs*, 681 F.3d 581, 587 (4th Cir. 2012).

## **ARGUMENT**

### **I. Plaintiffs Are Likely to Succeed on the Merits of Their Claims.<sup>2</sup>**

In issuing harassment authorizations, NMFS violated the MMPA, the ESA, and NEPA.<sup>3</sup> Time after time, the agency elevated the current administration’s offshore drilling policy over both common sense and the protections of the statutes it was entrusted to implement. NMFS used flawed legal interpretations to avoid the strict requirements of the MMPA. It downplayed the magnitude of harm by artificially segmenting its analysis, considering each survey in isolation even as it greenlighted all five. It conceded the potential for profound impacts to critically endangered species like right whales, then assumed those impacts away. And it short-circuited the review process that would have forced it to grapple with the true effects of seismic blasting by summarily concluding that opening the Atlantic to oil and gas exploration for the first time in decades would be insignificant. NMFS’s many shortcuts and its flawed legal analyses ignore basic principles of administrative law and violate the MMPA, the ESA, and NEPA.

#### **A. NMFS’s Harassment Authorizations Violate the MMPA.**

Plaintiffs are likely to show that NMFS violated the MMPA in two ways. First, NMFS

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<sup>2</sup> Plaintiffs have standing, as demonstrated by their attached declarations. First, their members have standing: NMFS’s actions, and the resulting harm to marine species, injure Plaintiffs’ members by interfering with their use, enjoyment, and research of the ocean and marine life. *See infra* 33-34; *Hill v. Coggins*, 867 F.3d 499, 505 (4th Cir. 2017). The relief Plaintiffs seek will redress these injuries by halting seismic surveys. Second, this suit is germane to Plaintiffs’ organizational purposes, *see, e.g.*, Cantral Decl.; Keyes Decl.; T. Miller Decl. Third, neither the claims asserted nor the relief sought requires the participation of individual members. *See Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 155 (4th Cir. 2000).

<sup>3</sup> For purposes of preliminary relief, Plaintiffs focus here on a subset of the agency’s errors.

violated the MMPA’s “small numbers” requirement by allowing each company to harass up to 33 percent of many marine mammal populations, a percentage that is not “small” under any reasonable definition. Second, NMFS violated the MMPA’s “negligible impact” requirement by evaluating each survey’s impact in isolation, irrationally refusing to analyze whether each survey’s impact would be negligible when added to the other four surveys.<sup>4</sup>

### 1. NMFS’s Interpretation of “Small Numbers” Is Unlawful.

The MMPA permits NMFS to authorize the harassment of only “small numbers of marine mammals of a species or population stock.” 16 U.S.C. § 1371(a)(5)(D)(i). NMFS interpreted this requirement to allow each company to harass up to 33 percent of many affected marine mammal populations—in some cases, tens of thousands of whales and dolphins. NMFS theorized that Congress’s use of “small numbers” implies there “also could be ‘medium’ or ‘large’ numbers.” 83 Fed. Reg. at 63,375. Based on that assumption, NMFS decided that all numbers must fall into one of three “equal bins,” with “small numbers” those from 0-33 percent, “medium” numbers those from 34-66 percent, and “large” numbers those from 67-100 percent. *Id.* NMFS did not purport to derive its three-equal-bins explanation from the statute’s text, structure, or conservation purpose. NMFS’s explanation certainly does not comport with the way we ordinarily talk or think about numbers. To the contrary, the plain meaning of the phrase “small numbers,” precedent, and the phrase’s use elsewhere in the MMPA all foreclose the agency’s assertion that 33 percent of an entire population is a small number.

The statutory phrase “small numbers of marine mammals” is not defined in the MMPA.

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<sup>4</sup> To the extent NMFS interpreted the MMPA in issuing its harassment authorizations, its interpretations are only entitled to “respect” based on the “persuasiveness” of the agency’s reasoning. *See, e.g., High Sierra Hikers Ass’n v. Blackwell*, 390 F.3d 630, 648 (9th Cir. 2004) (denying deference under *Chevron U.S.A., Inc. v. NRDC*, 468 U.S. 837 (1984), “because [the agency] was granting permits, not acting in a way that would have precedential value”).



“When a term goes undefined in a statute, we give the term its ordinary meaning.” *Taniguchi v. Kan Pac. Saipan, Ltd.*, 566 U.S. 560, 566 (2012). Here, the ordinary meaning forecloses NMFS’s interpretation. A number is small if it is “few in number,” “little,” Webster’s Third New International Dictionary 2149 (1986), or “close to zero,” Merriam-Webster Online Dictionary (2018), <https://www.merriam-webster.com/dictionary/small> (accessed Feb. 19, 2019).<sup>5</sup> Thirty-three percent of a population is not a “few” members of the population or a “little” number. Common usage makes clear that a “small number of marine mammals” cannot mean one out of every three animals. If one-third of Charleston residents lost power after a storm, no reasonable person would say a “small number” of residents were affected.

Precedent confirms as much. No court has upheld an interpretation of “small numbers” that even approaches the one NMFS advances here. In the only decision to squarely grapple with the meaning of “small numbers” under the MMPA, a federal court concluded that “[a] definition of ‘small number’ that permits the potential taking of as much as 12% of the population of a species is plainly against Congress’ intent.” *NRDC v. Evans*, 279 F. Supp. 2d 1129, 1152 (N.D. Cal. 2003). The sole case NMFS cited to justify its threshold, *CBD v. Salazar*, 695 F.3d 893, 907 (9th Cir. 2012) (cited in 83 Fed. Reg. at 63,375), involved a number of takes “an order of magnitude” lower than the population size—meaning takes of ten percent or less. *Id.*

Moreover, the court in *CBD* merely confirmed that NMFS may adopt a proportional definition of

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<sup>5</sup> NMFS claims a different dictionary definition of “small”—“having comparatively little size”—supports its 33-percent interpretation. 83 Fed. Reg. at 63,301. Not so. The dictionary NMFS cites is clear that when “small” refers to “an objectively measurable aspect (*such as quantity*),” the definitions cited in the main text (“little or close to zero”) control. *See* Merriam-Webster Online Dictionary (emphasis added). In any event, the definition NMFS cites would only support *some* proportional definition of “small.” It does not speak to what proportion is “small.”

“small numbers”; it did not state what proportion is lawful.<sup>6</sup>

When interpreting nearly identical language in the Copyright Act of 1976, courts have unanimously concluded that the statutory phrase “a relatively small number,” 17 U.S.C. § 405(a)(1), excludes proportions over ten percent. *See, e.g., NEC Corp. v. Intel Corp.*, No. C-84-20799-WPG, 1989 WL 67434, at \*4 (N.D. Cal. Feb. 6, 1989) (“An examination of twenty federal court decisions that have considered the matter discloses none in which 10.6% was held to be a relatively small number. The highest percentage found to have been within the exception is 9% . . . .”). These decisions relied on the plain meaning of “relatively small number,” not any consideration unique to the Copyright Act.

That “small numbers” cannot mean 33 percent is confirmed by that phrase’s use elsewhere in the MMPA. Congress imposed an identical “small numbers of marine mammals” requirement on authorizing activities that may seriously injure or kill marine mammals. 16 U.S.C. § 1371(a)(5)(A)(i); 50 C.F.R. § 216.107(a). In general, “identical words used in different parts of the same act are intended to have the same meaning.” *Healthkeepers, Inc. v. Richmond Ambulance Auth.*, 642 F.3d 466, 472 (4th Cir. 2011) (quoting *Helvering v. Stockholms Enskilda Bank*, 293 U.S. 84, 87 (1934)). If NMFS is right that 33 percent is a “small number,” that would mean Congress intended to allow *each* permittee to injure or kill one out of every three animals in each affected marine mammal population. Yet allowing such extensive harm would directly conflict with the MMPA’s protective purpose, as it could quickly lead to the extinction of the species. *See* 16 U.S.C. § 1361(1), (2), (6) (describing the purposes of the MMPA).

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<sup>6</sup> NMFS’s 33-percent threshold results in takes that are, as an absolute matter, not “small.” For example, NMFS authorized TGS to harass 52,000 short-beaked common dolphins and Western to harass 20,000 bottlenose dolphins. 83 Fed. Reg. at 63,376 tbl. 15. Plaintiffs focus here on the flaws in NMFS’s proportional limit, but the authorized takes are also not small as an absolute matter.

In short, NMFS’s 33-percent threshold was not drawn from the statute’s text, precedent, or purpose. Instead, it was a transparent attempt to squeeze the enormous number of marine mammals harassed by these surveys into the statute’s narrow “small numbers” exception. Plaintiffs are likely to show that NMFS’s interpretation is unreasonable and unlawful.

**2. NMFS’s Negligible Impact Analyses Irrationally Considered the Impacts of Each Survey in Isolation.**

To be lawful, an agency’s action must “be the product of reasoned decisionmaking.” *State Farm*, 463 U.S. at 52. An agency must “articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made,” and must not “entirely fail[] to consider an important aspect of [a] problem.” *Id.* at 43. NMFS’s negligible-impact determinations violate these commands by failing to account for the overlapping, additive impacts of five contemporaneous seismic surveys.

Under the MMPA, NMFS cannot lawfully authorize any action unless it will have “a negligible impact on [each marine mammal] species or stock.” 16 U.S.C. § 1371(a)(5)(D)(i)(I). An impact is “negligible” if it “cannot be reasonably expected” to “adversely affect the species” by reducing “annual rates of recruitment or survival.” 50 C.F.R. § 216.103. Here, NMFS authorized five seismic surveys during the same time period, in the same area, 83 Fed. Reg. at 63,269, and acknowledged the surveys would disrupt the feeding, communication, and breeding of the same marine mammal populations, *e.g. id.* at 63,316-18. But NMFS never evaluated whether the five seismic surveys it authorized, simultaneously and in one document, would have more than a negligible impact on marine mammal populations. Instead, the agency “consider[ed] the potential impacts” of each survey “independently”—that is, in isolation. *See id.* at 63,269.

NMFS’s approach is irrational because it ignores the reality that each survey will not take place in isolation and marine mammals will not experience its effects in isolation. Instead, five

million aggregate airgun blasts, over months of survey activity, will hit the same marine mammal populations—driving them from their food, potentially separating them from their vulnerable calves, and disrupting their behavior. *See id.* at 63,269-70. The combined surveys will have more significant impacts on affected species than a single survey would: they will harass more animals than a single survey would, and they will harass individual animals more times than a single survey would. As the agency acknowledged, disruptions “are more likely to be significant if they last more than one [day] or recur on subsequent days.” 82 Fed. Reg. 26,244, 26,278 (June 6, 2017) (incorporated by reference at 83 Fed. Reg. 63,325). By looking at each survey’s “impact” in isolation, NMFS refused to consider the ways in which those impacts will build on one another.<sup>7</sup> While a survey might harass a marine mammal for the third, fourth, or fifth time, NMFS pretended that each survey would be the *sole* source of seismic blasting in the region.

Courts have recognized in analogous contexts that an agency’s analysis of a proposed action is irrational if it fails to consider the real-world environmental stressors that will influence how, and how significantly, the proposed action affects the environment. For example, in *Concerned Friends of the Winema v. U.S. Forest Service*, the court held that the agency improperly evaluated “the adverse effects of . . . grazing on [a] sensitive species” when it considered only authorized grazing, ignoring unauthorized grazing occurring in the same place. No. 1:14-CV-737-CL, 2016 WL 10637010, at \*8-9 (D. Or. Sept. 12, 2016), *R. & R. adopted by* 2017 WL 5957811 (D. Or. Jan. 18, 2017); *see also U.S. Air Tour Ass’n v. FAA*, 298 F.3d 997, 1001, 1018-19 (D.C. Cir. 2002) (finding arbitrary agency decision to analyze only noise from air tours and not from other flights in measuring flight noise levels at the Grand Canyon).

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<sup>7</sup> NMFS could have conducted one negligible-impact analysis for the total take from all five surveys, or perhaps could have conducted five negligible-impact analyses, each evaluating the impact of each new survey when added to the others. NMFS did neither.

NMFS itself has previously agreed that, in evaluating whether an activity's impact will be negligible, it must consider the other stressors to which it will be added. In promulgating its definition of "negligible impact," NMFS asserted that "the impacts . . . from successive or contemporaneous activities must be added to the baseline of existing impacts to determine negligible impact." 54 Fed. Reg. 40,338, 40,342 (Sept. 29, 1989). NMFS recognized that even impacts that are "fairly minor" could "be more than negligible when measured against a baseline that includes a significant existing take of marine mammals from the other activities." *Id.*<sup>8</sup>

The agency claimed to follow that principle here, adding each survey's impact to those of other "past and ongoing anthropogenic activities," like vessel strikes, entanglement in fishing gear, and exposure to contaminants. 82 Fed. Reg. at 26,296, 26,299. But, inexplicably, NMFS refused to add the impact of each survey to the impact of the *other four surveys*. Instead, NMFS claimed—for each survey—that the other surveys, though authorized the same day, and though occurring contemporaneously, were "future" activities that were "unrelated" to the survey being evaluated and thus did not need to be considered. *See* 83 Fed. Reg. at 63,283. But it is logically impossible for all five surveys to be "future" activities with respect to one another. They will either be contemporaneous, or they will follow one another—in which case the later surveys' impacts will build on those of the prior surveys. Far from being "unrelated," the surveys will harass the same marine mammals at the same time, resulting in mounting impacts. NMFS's approach irrationally ignores these realities.

The flaw in NMFS's approach is perhaps best exposed by the absurd results it would permit. The primary purpose of the "negligible impact" standard is to prevent the "extinction or

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<sup>8</sup> Plaintiffs dispute NMFS's conclusion that each survey's isolated impact is negligible, but NMFS's analysis is irrational even if the agency is right about those isolated impacts.

depletion” of marine mammal species, 16 U.S.C. § 1361(1), by “ensuring that marine mammals are maintained at healthy population levels,” H.R. Rep. No. 97-228, at 11 (1981); *see* 16 U.S.C. § 1361(2). But, by its rationale here, if NMFS concluded that injuring ten endangered whales would have a negligible impact on the species, it could authorize applicants to simultaneously injure *all* remaining whales—perhaps repeatedly—so long as it did so in separate authorizations and no individual applicant injured more than ten. By that logic, even if an activity would, when added to other stressors on the species, lead to extinction, NMFS could authorize that activity so long as its impact was “negligible” if viewed in isolation. At least one court has refused to allow NMFS to apply the “negligible impact” standard in a way that would risk “authorizing the wiping out of endangered and threatened species.” *Conservation Council for Haw. v. NMFS*, 97 F. Supp. 3d 1210, 1221 (D. Haw. 2015). This court should do the same. NMFS’s negligible-impact analyses, which irrationally considered each survey in isolation, are unlawful.

**B. The Biological Opinion Violates the ESA.**

Section 7 of the ESA prohibits federal agencies from authorizing any action “likely to jeopardize the continued existence” of endangered or threatened species. 16 U.S.C. § 1536(a)(2). Here, NMFS violated its obligation to analyze rationally—based on the best available scientific data—whether seismic blasting will jeopardize the survival and recovery of endangered species like North Atlantic right whales. *See id.* § 1536(b)(3)(A); 50 C.F.R. §§ 402.02, 402.14(g), (h). The loss of a single right whale mother or calf has serious ramifications for a population of 411 animals in which deaths are far outpacing births. *See* Seismic BiOp at 126 (stating right whales “continue to face very high risks of extinction because of their small population sizes and low population growth rates”). The right whale has no margin for NMFS’s errors, guesswork, or unsubstantiated assumptions. Yet NMFS’s “no jeopardy” conclusion depended on multiple analytical omissions and assumptions, and is not based on the best available science. NMFS’s

jeopardy analysis also failed to address the full scope of the agency’s action. Plaintiffs are likely to succeed on their claim that the biological opinion is arbitrary and capricious.

**1. NMFS Relied on Unfounded Assumptions and Violated Its Statutory Obligation to Rely on the Best Available Science.**

In the biological opinion, NMFS found that North Atlantic right whale mother and calf pairs are the most vulnerable to threats from seismic surveys. *See, e.g.*, Seismic BiOp at 193 (finding “females with calves are expected to be the most vulnerable to energetic losses” from harassment from seismic blasts and that “[t]his is especially true for North Atlantic right whales given that many right whales appear to be in poor health”); *id.* at 188-89, 190. NMFS also concluded that disturbance from noise can harm right whale calves. *See, e.g., id.* at 189 (survey blasts could “have effects on mother-calf communication and behavior,” which, if they prevented mothers and calves from reuniting or initiating nursing, could “lead to reduced growth, starvation, and even death”); *id.* at 189 (concluding that survey blasts could interfere with mother-calf reunions); *id.* at 139 (finding that mother-calf pairs appear to be most reactive to vessel disturbance). In the end, NMFS estimated that the seismic surveys will harass at least 19 right whales, including four mothers and calves, *id.* at 158, but concluded that they are “not likely to jeopardize” the species, *id.* at 205. That conclusion is based on science that the agency itself has rejected, a series of unfounded assumptions, and critical analytical omissions.<sup>9</sup>

**a. NMFS Violated the ESA and Significantly Underestimated the Harm from Seismic Surveys by Relying on an Outdated Threshold that the Agency Itself Has Rejected.**

Section 7 of the ESA requires NMFS to “use the best scientific and commercial data available” in its biological opinion. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8). As the

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<sup>9</sup> While most problematic for right whales, NMFS’s errors pervade the conclusions of the biological opinion for all listed species.

Fourth Circuit has recognized, when a biological opinion uses “data [that] are either outdated or inaccurate, it should, at the very least, analyze the new data or explain why it nevertheless chose to rely on the older data.” *Dow AgroSciences LLC v. NMFS*, 707 F.3d 462, 473 (4th Cir. 2013); *see also Sierra Club v. U.S. Dep’t of Interior*, 899 F.3d 260, 273 (4th Cir. 2018) (holding that “best scientific and commercial data” standard requires consideration of post-application data). An agency’s reliance on outdated information is arbitrary and capricious. *Intertribal Sinkyone Wilderness Council v. NMFS*, 970 F. Supp. 2d 988, 998-1002 (N.D. Cal. 2013) (invalidating NMFS’s reliance on outdated exposure thresholds the agency had abandoned elsewhere); *Ocean Mammal Inst. v. Gates*, 546 F. Supp. 2d 960, 975 (D. Haw. 2008), *modified in part*, No. CIV. 07-00254DAELEK, 2008 WL 2020406 (D. Haw. May 9, 2008) (same).

NMFS failed to rely on the best available science to estimate the number of exposures of endangered whales. To minimize the impacts of seismic blasting, it relied instead on a standard the agency itself recently rejected. NMFS employed a sound threshold of 160 decibels to estimate the number of instances of marine mammal “harassments” that will result from seismic surveying. Seismic BiOp at 151, 153. That is, NMFS only counted whales as “harassed” if they were exposed to sound levels at or above 160 decibels. *Id.* NMFS characterized this exposure threshold as “utiliz[ing] the best available information and methods.” *Id.* at 151.

But months earlier, in proposing to authorize seismic surveys in the Gulf of Mexico, NMFS abandoned the 160-decibel threshold. *See* 83 Fed. Reg. 29,212, 29,247-48 (June 22, 2018). There, the agency announced that “[s]tudies of marine mammals in the wild and in experimental settings do not support” use of a single 160-decibel threshold. *Id.* at 29,247. NMFS declared “that an approach reflecting a more complex probabilistic function is better reflective of available scientific information,” because it “takes the fundamental step of acknowledging the



potential for . . . harassment at exposures to received levels below 160 [decibels].” *Id.* at 29,248.

The model that NMFS relied on there in place of the 160-decibel threshold employs more protective exposure thresholds for certain whales during migration, to account for their “heightened sensitivity”; it assumes these whales are harassed at received sound levels far below 160 decibels. *See id.* Had NMFS employed that more protective approach here, it would have yielded dramatically higher exposure estimates for right whales and other whale species. The area where animals are exposed to sound at 150 decibels could be as much as 15 times greater than the area in which animals are exposed to sound at 160 decibels. *See Atlantic Programmatic EIS at D-87.* The area of ocean exposed to sound levels of 120 to 140 decibels—the levels endorsed by the model NMFS used in the Gulf—is even greater. Nowacek Decl. ¶ 30 n.3. The use of an outdated 160-decibel threshold undoubtedly affected the agency’s jeopardy analysis, as NMFS relied on the threshold for its (1) take estimates, Seismic BiOp at 151-52, (2) choice of a 10-kilometer buffer zone around area closures, *id.* at 31, and (3) conclusion that whales, including migrating mother and calf right whales, will be exposed to harmful levels of sound for only “brief” periods, *id.* at 159.

Nowhere did NMFS justify or analyze its continued use of the outdated and “simplistic” 160-decibel threshold here, 83 Fed. Reg. at 29,248, or consider whether use of the newer model it adopted in the Gulf would have altered its conclusions. *See Intertribal Sinkyone Wilderness Council*, 970 F. Supp. 2d at 998-1002; *see also State Farm*, 463 U.S. at 43. NMFS’s reliance on a sound threshold that it has abandoned elsewhere—and that drastically underestimates the effects of seismic surveys—is a straightforward legal error. Without accurate estimates of the number of harassments, NMFS could not draw rational conclusions about whether the surveys would jeopardize the survival and recovery of endangered whales.

**b. NMFS Violated the ESA by Failing to Adequately Address the Risk of Repeated Harassment from Overlapping or Continuous Surveying.**

As a corollary to its obligation to rely on the best available science, NMFS cannot rely on assumptions or guesswork about critical issues in the biological opinion or fail to address known risks. When the agency, rather than analyzing a potential risk, simply assumes it will not occur based on “speculation or surmise,” its analysis is arbitrary and capricious. *See Bennett v. Spear*, 520 U.S. 154, 176 (1997); *see also Ohio River Valley Envtl. Coal., Inc. v. Kempthorne*, 473 F.3d 94, 102-04 (4th Cir. 2006) (finding that agency’s “failure to analyze” effects of an action in way that might make program “less environmentally protective” rendered approval arbitrary). In addition to underestimating the number of harassments by using the outdated threshold described above, NMFS failed to rationally address the impact of repeat harassment on species, especially the critically endangered right whale, for which the loss of even one mother or calf could decrease the likelihood of the species’ survival and recovery.

NMFS admitted that repeated exposure to seismic blasts can harm marine mammals more than a single exposure would, especially if the animals have little time for recovery. *See* Seismic BiOp at 213. NMFS further conceded that, if migrating right whales and calves “were to travel in the same direction as an active seismic vessel, exposure could be longer,” *id.* at 159, increasing the harm. Repeated or prolonged exposures could separate a mother and calf, a serious threat to a species on the knife’s edge. *See id.* at 189. Notwithstanding the critical importance of the possibility and impact of repeat exposures, NMFS largely threw up its hands over the issue. The agency conceded that each of the five seismic surveys can “continue for weeks, or months,” *id.* at 11; that it did not know where seismic vessels would be at any given time, *see id.* at 159 (noting “temporal and spatial uncertainty of seismic vessels and [animals] within the action area”); and that it did not “know the exact distribution of survey effort within each company’s

operating window,” *id.* at 156.

Yet NMFS nowhere analyzed the effects of multiple seismic companies operating in the same area at the same time, or of one seismic survey immediately following another through an area, subjecting animals in that area to repeated harassments in rapid succession.<sup>10</sup> The agency cannot both concede that repeat exposures can have significant effects on species, and then opt out of considering whether such impacts will occur. Nor can NMFS claim that the actual tracks of the surveys are irrelevant. Indeed, NMFS recommended that BOEM require staggering the surveys to “reduce the overall additive impacts associated with the proposed action.” *Id.* at 213. NMFS cannot, however, identify the potential for repeat harassment, take no concrete action on such harm, and then hope that another agency will later solve the problem. *See, e.g., NWF v. NMFS*, 254 F. Supp. 2d 1196, 1214-15 (D. Or. 2003) (agency may not base no-jeopardy conclusion on mitigation measures to be imposed by another agency). This flaw also renders the biological opinion arbitrary and capricious.

**c. NMFS Failed to Consider the Effects of the Action Added to Other Present and Future Noise-Generating Activities.**

NMFS compounded its error by failing to analyze how listed species will be affected by the effects of seismic blasting together with the simultaneous and overlapping impacts of other human activities that increase ocean noise levels. NMFS cannot conduct its jeopardy analysis in a vacuum without considering whether the effects of the action, “when added to the underlying baseline conditions, would tip the species into jeopardy.” *NWF v. NMFS*, 524 F.3d 917, 929

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<sup>10</sup> The biological opinion contains numerous passages downplaying the impacts of seismic surveys as “brief.” *See* Seismic BiOp at 159, 189, 193 (predicting exposure for North Atlantic right whale mother-calf pairs will last “in most cases only several minutes”). To state the obvious, the duration of any individual exposure is irrelevant to whether exposures are repetitive.

(9th Cir. 2008). But NMFS never analyzed how the baseline and cumulative effects of other sound-generating activities, including Navy training and noise generated by vessel traffic,<sup>11</sup> would overlap with, and exacerbate, the acoustic impacts of the five seismic surveys.

One egregious example is NMFS's failure to evaluate the combined impacts of seismic surveys and U.S. Navy activity in the same waters. In a biological opinion issued just months ago, NMFS concluded that Navy training would cause tens of thousands of instances of harassment of these same species over a five-year period. *See* Ex. 13, Navy Atlantic Biological Opinion at 490. The same endangered whale may be disturbed by noise from a seismic survey, then by Navy sonar and explosives, then by another seismic survey. But while NMFS recognized that multiple disturbances coming one after the other have the "greatest impact" because animals "are more frequently disturbed and have little time for recovery between disturbances," Seismic BiOp at 213, it failed to add, let alone analyze, the impact of the seismic surveys to the impacts from the Navy's activities.<sup>12</sup> Without accounting for these multiple exposures, NMFS could authorize infinite stressors with no analysis of their combined effects. The ESA prohibits such a blinders-on approach. *See Pac. Coast Fed'n of Fishermen's Ass'ns v. NMFS*, 265 F.3d 1028, 1036-37 (9th Cir. 2001) (holding that if "individual projects are diluted to insignificance and not aggregated," then NMFS's "assessment . . . is tantamount to assuming that no project will ever

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<sup>11</sup> The biological opinion repeatedly cites evidence that vessel noise masks right whale calls and increases stress. *See, e.g.*, Seismic BiOp at 87 (exposure to vessel noise may limit the species' communication space by as much as 67 percent); *id.* at 140-41, 182 (reduced shipping noise linked to reduced stress hormones in right whales). Although the agency noted masking effects may be worse in the action area than in areas studied to date, *id.* at 176, it never analyzed the effects of seismic blasting when combined with the baseline effects of vessel noise in the area. Given the species' health decline and its very low resilience to future perturbations, *id.* at 88, this omission underscores that the no-jeopardy finding is arbitrary and unlawful.

<sup>12</sup> While the agency briefly acknowledges that the Navy trains in this area, Seismic BiOp at 133-134, it does not analyze adding seismic surveys to the impacts from these training activities.

lead to jeopardy of a listed species”). By minimizing or ignoring the potential for repeated exposure, NMFS’s analysis resulted in an unlawful jeopardy determination.

## **2. NMFS Violated the ESA by Authorizing an Agency Action It Did Not Analyze.**

NMFS is required to consider the “effect of the *entire* agency action” in any biological opinion. *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 521 (9th Cir. 2010) (citation and quotation marks omitted); *see also Greenpeace v. NMFS*, 80 F. Supp. 2d 1137, 1147 (W.D. Wash. 2000). It cannot segment its analysis by deferring until some future date its consideration of any aspects of an authorized action that may influence its jeopardy analysis. *See Conner v. Burford*, 848 F.2d 1441, 1455, 1457-58 (9th Cir. 1988); *see also CBD v. Rumsfeld*, 198 F. Supp. 2d 1139, 1153-55 (D. Ariz. 2002) (vacating biological opinion that allowed Army to continue action but deferred review of mitigation plan necessary to alleviate actions’ harm).

Here, NMFS took a novel and unlawful approach. The biological opinion’s analysis, and in turn NMFS’s no-jeopardy finding, are contingent on mitigation measures that include a closure area prohibiting seismic operations within 90 kilometers of shore between November and April.<sup>13</sup> Seismic BiOp at 26, 31. Indeed, in its no-jeopardy determination, NMFS explicitly relies on its finding that “[t]he proposed North Atlantic right whale closure greatly limits the exposure of North Atlantic right whales.” *Id.* at 204.<sup>14</sup>

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<sup>13</sup> Plaintiffs dispute the efficacy of NMFS’s closure area in mitigating effects on right whales. While NMFS hinges its no-jeopardy determination for right whales on this November to April closure, it acknowledges “near year round presence” of some right whales off Virginia and North Carolina. *See* Seismic BiOp at 84. This mitigation measure cannot protect right whales that are present year-round in waters where seismic blasting is allowed from May through October.

<sup>14</sup> NMFS also based its harassment estimates on the implementation of this closure area. *See* Seismic BiOp at 31, 156. As a result, NMFS’s estimates that only 19 right whales, including 4 mother-calf pairs, would be harassed is flawed not just because of the agency’s use of the wrong 160-decibel harassment threshold discussed above, but also because the estimates are based on a 90-kilometer closure that companies may opt out of.

Yet, in what it termed a “minor change[],” NMFS announced that it may later reduce the closure area to 47 kilometers if a company submits a monitoring and mitigation plan providing “comparable protection.” *Id.* at 5, 32. Nothing in the biological opinion or any other document explains how such a monitoring and mitigation plan would be evaluated or what criteria would be used to evaluate “comparable protection,” let alone whether NMFS will reinstate formal consultation, as required by regulation when an action is modified in a manner that affects listed species beyond what was considered in the biological opinion. 50 C.F.R. § 402.16(c). Moreover, the biological opinion nowhere analyzes the impact of seismic blasting as close as 47 kilometers to the shore. NMFS failed to estimate how many more takes would occur if the closure area were cut nearly in half, or what the impacts of a reduced closure would be on its jeopardy determination for right whales. Indeed, NMFS appears to concede that surveys conducted closer to shore could have dramatically different consequences for right whale mothers and calves, because—as NMFS admitted—these most vulnerable members of the species have been spotted at this distance and further offshore. *See* 83 Fed. Reg. at 63,282.

NMFS cannot, through deferral to some future process, satisfy its obligation to analyze whether the “entire agency action” results in “jeopardy” under the ESA. Here, NMFS authorized two scenarios—one action authorizing five seismic surveys with a mandatory 90-kilometer closure and one action authorizing some or all of the surveys to reduce the closure area to 47 kilometers—but analyzed right whale take and jeopardy only under the first scenario. NMFS’s failure to analyze both scenarios was unlawful. *See Conservation Council*, 97 F. Supp. 3d at 1233 (“NMFS was required to focus on what it was authorizing the Navy to take, not on what the Navy said it anticipated it would actually take”); *see also NRDC v. Rodgers*, 381 F. Supp. 2d 1212, 1240, 1242 (E.D. Cal. 2005) (finding biological opinion arbitrary where agency authorized

larger action than it analyzed). NMFS cannot create a novel, extra-statutory process whereby the agency, in the future and in secret, may waive the protections on which the no-jeopardy finding depends. NMFS's attempt to postpone its analysis violated the ESA.

**C. NMFS's Failure to Prepare an EIS Violates NEPA.**

Plaintiffs are likely to succeed on their claim that NMFS violated NEPA by failing to prepare an EIS to evaluate the harassment authorizations. “[B]y focusing the agency’s attention on the environmental consequences of a proposed project, NEPA ensures that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). An EIS is required for every “major Federal action[],” 42 U.S.C. § 4332(2)(C), when there is a “substantial possibility” that such action “may have a significant impact on the environment,” *Friends of Back Bay*, 681 F.3d at 590. Significance considers both the context and intensity of an action. 40 C.F.R. § 1508.27. NEPA regulations list numerous factors that may make an action significant, including cumulatively significant impacts, impacts on endangered species, and highly controversial or uncertain environmental impacts. *Id.* § 1508.27(b).

The significance of these harassment authorizations is facially clear. NMFS authorized more than five million airgun blasts over half of the Atlantic seaboard, in ecosystems that have not experienced such blasts in over three decades. *See* Bernard Decl. ¶¶ 12-18; Seismic BiOp at 9. The vessels will disrupt marine mammals hundreds of thousands of times as they traverse and re-traverse the region with over 87,000 miles of survey lines. *See* 83 Fed. Reg. at 63,269-70, 63,376 tbls. 15, 17. The surveys will emit intense, nearly continuous noise into some of the richest biological waters in the Atlantic and the migratory route and only known calving grounds of the North Atlantic right whale. *See supra* at 3-6. NMFS authorized a total of over 375,000 instances of harassment of marine mammals. *See* 83 Fed. Reg. at 63,376 tbls. 15, 17. Courts have

found a likelihood of success on a claim that an agency was required to prepare an EIS in similar cases involving acoustic harassment of far fewer marine mammals. *See, e.g., Ocean Mammal Inst.*, 546 F. Supp. 2d at 979-80; *NRDC v. Winter*, 518 F.3d 658, 689-91 (9th Cir.), *rev'd on other grounds*, 555 U.S. 7 (2008).

Even if the surveys' sheer magnitude does not establish the significance of their impact, the factors NMFS must consider in determining whether to prepare an EIS plainly do. *See* 40 C.F.R. § 1508.27(b). The presence of just one factor "may be sufficient to require preparation of an EIS." *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 865 (9th Cir. 2005); *see Friends of Back Bay*, 681 F.3d at 589 ("Without discounting the potential applicability of any of the ten factors, two in particular militate strongly in favor of [preparing an EIS]."). Here, numerous significance factors are present, including the following:

***Impacts on Endangered Species.*** An action is likely significant if it "may adversely affect an endangered or threatened species." 40 C.F.R. § 1508.27(b)(9). Here, NMFS admitted that five endangered whale species and five threatened or endangered sea turtle species "are likely to be adversely affected by the proposed action." Seismic BiOp at 73-113, 202. In a similar situation, the Ninth Circuit held that the agency's finding "that [sonar] exercises 'may adversely affect'" endangered species "by its own terms ma[de] clear that the [sonar] exercises may 'significantly' affect the environment," likely requiring an EIS. *Winter*, 518 F.3d at 692. The same is true here.

***Highly Controversial Effects.*** An action is likely significant when there is "a substantial dispute" about its "size, nature or effect." *Rucker v. Willis*, 484 F.2d 158, 162 (4th Cir. 1973); 40 C.F.R. § 1508.27(b)(4). This standard is easily met here. These surveys are controversial even within the agencies, which previously denied these permits because of their "environmental



burden,” including “the potential disadvantage” to North Atlantic right whales. Ex. 10 at 5, 6. Moreover, government agencies, conservation groups, scientists, and fisheries management councils dispute NMFS’s judgment on many critical scientific questions, like the distance at which seismic airgun sound disrupts marine mammal behavior; the sound threshold at which hearing loss occurs; and the potential for long-term, population-level consequences. *See, e.g.*, Ex. 14, NRDC Comments; Ex. 15, Marine Mammal Commission Comments; Ex. 16, Comments of Attorneys General of MD, DE, DC, MA, NY, NC, PA, RI; Ex. 17, Comments of eight prominent marine scientists; Ex. 18, Comments of UNC Wilmington scientists; Ex. 19, Comments of Mid-Atlantic Fishery Management Council. These objections from “conservationists, biologists, and other knowledgeable individuals” demonstrate that an EIS was required. *Found. for N. Am. Wild Sheep v. U.S. Dep’t of Agric.*, 681 F.2d 1172, 1182 (9th Cir. 1982); *Ocean Mammal Inst.*, 546 F. Supp. 2d at 980 (same).

***Highly Uncertain and Unique, Unknown Risks.*** An action is likely significant where “the possible effects on the human environment are highly uncertain or involve unique or unknown risks.” 40 C.F.R. § 1508.27(b)(5). “[T]o the extent that a paucity of scientific data” on harm to marine species exists, “that is a reason to conduct further research and prepare an EIS,” the purpose of which “is to obviate the need for speculation.” *Winter*, 518 F.3d at 690 (citation omitted); *Ocean Mammal Inst.*, 546 F. Supp. 2d at 979-80 (uncertainty about effects of sound on animals—“at what levels, at what distances, under what conditions, and on which species”—underscored need for an EIS). NMFS repeatedly asserted that the science regarding seismic airgun blasting’s impact on marine life is uncertain, stating for instance that “the consequences of anthropogenic sound on . . . marine mammals and sea turtles at the population or species scale remain uncertain,” Seismic BiOp at 131-32, and that “given that much less is known about how

[sea turtles] use sound, the impacts of anthropogenic sound are difficult to assess,” *id.*

**Cumulatively Significant Impacts.** “Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.” 40 C.F.R. § 1508.27(b)(7). As discussed above, these five surveys will all affect the same animals, in the same region, at the same time. They will be in addition to other activities in the area, such as Navy training activities and shipping. *See supra* 22-23. And additional disruptive activity in the region is likely, with a total of twelve geological and geophysical permits currently pending before BOEM. Cruickshank Decl. ¶ 4; 40 C.F.R. § 1508.7 (defining cumulative impact to include “reasonably foreseeable future actions”). Taken together, these activities create a risk of serious cumulative effects that “militate[s] strongly in favor of” an EIS. *Friends of Back Bay*, 681 F.3d at 589.

In summary, there is at least a “substantial possibility” that the surveys “may have a significant impact on the environment.” *Id.* at 590 (citation omitted). NMFS was required to prepare an EIS. Its failure to do so violates NEPA and the APA.<sup>15</sup>

## II. Absent Preliminary Injunctive Relief, Plaintiffs Will Suffer Irreparable Harm.

“Environmental injury, by its nature, can seldom be adequately remedied by money

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<sup>15</sup> NMFS cannot escape its obligation to take a “hard look” at the environmental impacts of seismic surveys by relying on (or “tiering” to) BOEM’s five-year old programmatic EIS. *See* 42 U.S.C. § 4332(2)(C) (requiring an EIS for “every . . . major Federal action[.]”) (emphasis added). First, the existence of a programmatic EIS does not absolve the agency of the obligation to consider the significant environmental effects of site-specific actions. *See Blue Mts. Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214 (9th Cir. 1998) (“Nothing in the tiering regulations suggests that the existence of a programmatic EIS for a [program] obviates the need for any future project-specific EIS, without regard to the nature or magnitude of a project”). Second, the programmatic EIS is already dated and does not consider significant new information regarding the impacts of seismic surveys on marine resources released in the last five years. *See* 40 C.F.R. §§ 1502.9(c)(1), 1506.3(a). NEPA requires NMFS to prepare an EIS to evaluate direct, indirect, and cumulative impacts of the seismic surveys and account for significant new information. The agency failed to do so. *See* EA at 69 (summarily dismissing recent study showing airgun blasts cause mass zooplankton mortality). As such, “[t]iering to the [BOEM]-EIS cannot save the EA[.]” *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 997 (9th Cir. 2004).

damages and is often permanent or at least of long duration, i.e., irreparable.” *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 545 (1987); *see also Nat’l Audubon Soc’y v. Dep’t of Navy*, 422 F.3d 174, 201 (4th Cir. 2005). This case is no exception. Intense noise from the authorized seismic surveys will harass, injure, and kill marine life across the Mid- and South Atlantic, causing irreparable harm to the environment and Plaintiffs’ members.

**A. Seismic Blasting Will Harass and Seriously Injure or Kill Marine Mammals.**

“Irreparable harm should be determined by reference to the purposes of the statute being enforced.” *NWF v. NMFS*, 886 F.3d 803, 818 (9th Cir. 2018); *see also Amoco*, 480 U.S. at 544 (irreparable-harm inquiry requires consideration of the “purpose” and “underlying substantive policy” of the act). For the MMPA and ESA, that purpose is the protection of marine mammals and endangered species. *See Evans*, 279 F. Supp. 2d at 1188 (noting Congress’s “concern about . . . harassment of marine mammals” embodied in MMPA); *TVA v. Hill*, 437 U.S. at 184 (noting Congress’ desire in ESA to “halt and reverse the trend toward species extinction, whatever the cost”); *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (describing NEPA’s purpose of assuring the public that the agency has considered environmental consequences before it commits itself to a course of action). Seismic airgun blasting threatens the precise harms these statutes were enacted to prevent.

Courts have repeatedly concluded that the harassment and injury of marine mammals caused by loud underwater sound constitutes irreparable harm. In *Evans*, the court enjoined the use of naval sonar because it deemed irreparable “the certain harassment and possible injury of marine mammals and other sea creatures, many of them endangered.” 279 F. Supp. 2d at 1188. In *NRDC v. Gutierrez*, the court issued a preliminary injunction because “marine mammals, many of whom depend on sensitive hearing for essential activities like finding food and mates and avoiding predators,” would “at minimum be harassed by the extremely loud and far traveling

[sound]” created by naval sonar. No. C-07-04771 EDL, 2008 WL 360852, at \*30 (N.D. Cal. Feb. 6, 2008). And in *CBD v. National Science Foundation*, the court issued a temporary restraining order blocking seismic airgun blasting because “if the airgun blasting continue[d],” it was “virtually inevitable that marine mammals [would] be injured, resulting in irreparable harm to the environment.” No. C 02-5065 JL, 2002 WL 31548073, at \*5 (N.D. Cal. Oct. 30, 2002).<sup>16</sup>

The harm in this case is no different. By NMFS’s own estimates, the authorized seismic blasting will harass and injure marine mammals hundreds of thousands of times. *See* 83 Fed. Reg. at 63,340 tbl. 6, 63,379 tbl. 17. Seismic surveys will disrupt marine mammals as they search for food and mates, migrate, and raise their young—that is, as they engage in behaviors vital to their survival. Nowacek Decl. ¶ 8. These harms, like those in *Evans*, *Gutierrez*, and *CBD*, are irreparable. Moreover, as detailed below, seismic blasting will cause even more severe consequences for North Atlantic right whales and beaked whales.

***Right Whales.*** The North Atlantic right whale is fighting for survival. Kraus Decl. ¶¶ 9-20. Just over 100 breeding female right whales are left, and many are barely healthy enough to produce calves. *Id.* ¶ 17. During last winter’s calving season, for the first time in decades, no new calves were seen. *See* 83 Fed. Reg. at 63,319. To ensure survival and recovery, significant stressors must be eliminated, and mortalities must be prevented. Kraus Decl. ¶ 19.

According to two of the world’s foremost right whale experts—on whose work NMFS itself relied—the authorized blasting “represents an existential threat.” *Id.* ¶ 5; *see* Nowacek Decl. ¶ 16. Seismic blasts will raise background noise levels across large stretches of ocean, including in the right whales’ migration path and only known calving grounds. Nowacek Decl.

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<sup>16</sup> These courts all found irreparable harm was likely or near certain, meeting the Supreme Court’s later holding that harm must be “likely” without an injunction. *Winter*, 555 U.S. at 23.

¶¶ 17, 23, 34-39; Kraus Decl. ¶ 31. The noise from seismic blasting will burden this critically endangered species in at least two ways. First, it will raise right whale stress levels, even at distances of hundreds of kilometers. Nowacek Decl. ¶¶ 20-23, 35-39; Kraus Decl. ¶ 30. Noise-induced stress depresses reproduction and compromises immune systems. Kraus Decl. ¶ 30. Thus, seismic blasts will interfere with right whales' ability to reproduce and subject vulnerable females and calves to a significant stressor. *Id.* ¶ 26. In the species' present state, *any* significant new stressor will further reduce the chances of reproduction and recovery. *Id.* ¶ 30.

Second, seismic blasts will mask the sound of mother-calf communications, making it more difficult for mothers and calves to stay together and increasing the risk of a premature—and for the calf, fatal—separation. *Id.* ¶ 27. Thus, seismic blasts will hit “the subset of individuals most critical for the survival and recovery of the species.” Ex. 9, 2013 Atlantic Programmatic BiOp at 281. This risk will arise as soon as blasting begins: seven right whale calves have been spotted on the calving grounds in recent weeks. *See* Ex. 4.

NMFS's prohibition on seismic blasting within 90 kilometers of the coast between November and April will not prevent these harms. Because the low frequency noise of seismic airgun blasting travels great distances underwater, “keeping seismic vessels out of nearshore waters will not prevent airguns from ensonifying prime right whale habitat” at levels high enough to cause harm. Nowacek Decl. ¶¶ 41-43; Kraus Decl. ¶ 31; *see supra* 17-19 (discussing agency's reliance on outdated sound threshold to estimate right whale exposures). Further, because right whales occur in the survey area year-round, including at distances far offshore, the coastal exclusion will not protect all whales. Nowacek Decl. ¶ 43; Kraus Decl. ¶ 32.

As this District has recognized, interference with a species' reproductive capability is an irreparable harm. Just last year, Judge Norton held that a temporary sea wall caused irreparable

harm because it blocked female sea turtles from reaching some nesting sites, reducing the chance of successful reproduction. *Sierra Club v. Von Kolnitz*, No. 2:16-CV-03815-DCN, 2017 WL 3480777, at \*7 (D.S.C. Aug. 14, 2017). Similarly, in *Red Wolf Coalition v. U.S. Fish & Wildlife Service*, the court found that an increased likelihood of mortality in a small, endangered population constitutes irreparable harm. 210 F. Supp. 3d 796, 805-06 (E.D.N.C. 2016).

The risk posed by seismic airgun blasting to right whale reproduction, and the increased risk of mortality, are irreparable. The species is already in decline, and seismic blasts threaten to “further push the [species] towards extinction.” Kraus Decl. ¶ 34. The impairment of an endangered species’ successful reproduction and calf rearing is paradigmatic irreparable harm.

**Beaked Whales.** The approved seismic blasts will also cause severe consequences for beaked whales. The area off the coast of Cape Hatteras is home to one of densest populations of beaked whales found anywhere in the world. Read Decl. ¶ 24. It is also “of critical interest” to the seismic companies, 83 Fed. Reg. at 63,303; all five companies will survey that area, and several will subject it to more concentrated blasts than other areas, *see, e.g.*, Seismic BiOp at 16, 19, 21, 23, 25; Watkins Decl., Fig. 1. As a result, the Cape Hatteras beaked whale population will experience intense and sustained seismic blasting. NMFS authorized the harassment of more beaked whales than any other type of whale and acknowledged that the “likely consequences” for beaked whales are “high.” *See* 83 Fed. Reg. at 63,340 tbl. 6, 63,379 tbl. 17.

Beaked whales are among the most sensitive marine mammals to noise, and will react severely to seismic blasting. Tyack Decl. ¶¶ 8-9; Read Decl. ¶ 29. Top beaked whale experts expect the authorized seismic surveys to create a significant risk of serious injury and death for some beaked whales in the survey area. Tyack Decl. ¶ 9. Beaked whales dive to extraordinary depths—deeper than any other mammal—relying on a delicate balancing of nitrogen gases and

stretching their oxygen supply to the limit. Read Decl. ¶¶ 16, 25; Tyack Decl. ¶ 14. Intense sound can cause these whales to flee rapidly, abort dives unexpectedly, or remain at depth longer than usual. Tyack Decl. ¶¶ 12-14. Those behavioral reactions make the whales susceptible to injury or death from stranding on the beach or suffering decompression sickness. *Id.* ¶¶ 9-20; Read Decl. ¶ 33. The risk is not hypothetical: beaked whales have repeatedly stranded on beaches and died, or died at sea, following exposure to loud anthropogenic noise sources, including seismic surveys and naval sonar. Tyack Decl. ¶ 10.

Beaked whales will also suffer intense behavioral disruption. The Cape Hatteras area provides prime habitat and dense concentrations of prey, offering important year-round habitat for these whales. Read Decl. ¶¶ 21-24. Many beaked whales will flee the area as seismic vessels approach, *id.* ¶ 34, likely moving far away and taking days to return, Tyack Decl. ¶ 29. Because NMFS authorized all five companies to conduct concentrated blasting in this area, beaked whales will be displaced repeatedly. *Id.* ¶¶ 30-31; Read Decl. ¶¶ 35-40. These repeated disturbances are likely to reduce foraging, leaving whales with less energy to pursue vital life functions like breeding. Read Decl. ¶ 49. Scientists expect the surveys will “have a long-term and significantly adverse effect on [the] populations of beaked whales” in the region. *Id.*; Tyack Decl. ¶ 32. This certain harassment and likely injury of beaked whales, which threatens individual whales and the Cape Hatteras population, is irreparable. *See Evans*, 279 F. Supp. 2d at 1188.

**B. Harassing, Injuring, or Killing Marine Wildlife Will Irreparably Harm Plaintiffs’ Members’ Ability to Enjoy and Study that Wildlife.**

The harms to marine mammals identified above will impair Plaintiffs’ members’ ability to study, observe, and conduct scientific research on these species. For example, the area off Cape Hatteras offers Danielle Waples and Heather Foley a unique opportunity to study beaked whales; if whales abandon that area, even temporarily, it will interfere with their work. Waples

Decl. ¶ 14; Foley Decl. ¶¶ 5, 8. Johnny Miller enjoys watching right whales from the beach; if right whales abandon their calving grounds, a special part of what it means to him to live in Fernandina Beach will be lost. J. Miller Decl. ¶ 7; *see also* Daves Decl. ¶¶ 4, 7 (describing enjoyment of whales and dolphins off Georgia coast). Similarly, Regina Asmutis-Silvia photographs right whales and advocates for their protection; if seismic airgun blasting reduces their ability to survive and recover, it will interfere with her ability to enjoy and learn about right whales. Asmutis-Silvia Decl. ¶¶ 10-15, 20. These injuries to Plaintiffs' members' aesthetic and research interests are irreparable. *See Red Wolf Coal. v. N.C. Wildlife Res. Comm'n*, No. 2:13-CV-60-BO, 2014 WL 1922234, at \*9 (E.D.N.C. May 13, 2014); *Red Wolf Coal.*, 210 F. Supp. 3d at 805; *NWF*, 886 F.3d at 822.

### **III. The Balance of Equities and the Public Interest Favor Injunctive Relief.**

Once Plaintiffs have shown irreparable harm to an endangered species, the Court's inquiry is at an end: "[t]he equitable scales are always tipped in favor of the . . . species." *Red Wolf Coal.*, 210 F. Supp. 3d at 806 (quoting another source); *see TVA v. Hill*, 437 U.S. at 194 (Congress "[made] it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities"); *see also S.C. Dep't of Wildlife & Marine Res. v. Marsh*, 866 F.2d 97, 100 (4th Cir. 1989) (stating that if there is irreparable harm to the environment, the balance of harms usually favors an injunction).

Even if this Court were to re-weigh the balance, the result would be the same. Plaintiffs and the public have an "extremely strong" interest in protecting "the survival and flourishing of marine mammals and endangered species" against acoustic harassment. *Evans*, 279 F. Supp. 2d at 1190; *see also Ocean Mammal Inst.*, 546 F. Supp. 2d at 983 (same); *NRDC*, 2008 WL 360852, at \*31 (same). Allowing NMFS to imperil marine life while this suit is decided would undermine the protective purposes that animate the MMPA, ESA, and NEPA. *See, e.g., TVA v. Hill*, 437



U.S. at 194 (ESA); *Evans*, 279 F. Supp. 2d at 1190 (MMPA); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (NEPA). An injunction will simply preserve the status quo that has existed for the last three decades, and any alleged harm the government or third parties might assert from a “delay in reaping” the purported “economic benefits” of industrial activity is “outweighed by . . . permanent harm to the environment.” *Ohio Valley Envtl. Coal. v. U.S. Army Corps of Eng’rs*, 528 F. Supp. 2d 625, 632 (S.D.W. Va. 2007).

Finally, the public interest favors an injunction. NMFS itself acknowledges that, in hundreds of thousands of comments and petitions, the public has expressed “overwhelming opposition” to oil and gas exploration in the Atlantic. 83 Fed. Reg. at 63,273. Up and down the Atlantic coast, states and municipalities have rejected seismic blasting. NMFS cannot cloak its policy preferences in a “public interest” the public does not support.


### CONCLUSION

NMFS has violated the MMPA, the ESA, and NEPA, elevating the administration’s policy of oil exploration over the laws Congress enacted. Absent intervention from this Court, hundreds of thousands of marine mammals will be exposed to disorienting, disruptive, and potentially lethal seismic blasting. Plaintiffs thus respectfully urge the Court to enter a preliminary injunction staying the effectiveness of NMFS’s harassment authorizations.<sup>17</sup>

Dated: February 20, 2019

Respectfully submitted,

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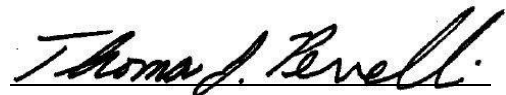
  
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<sup>17</sup> Federal Rule of Civil Procedure 65(c) requires that Plaintiffs post security. But “where plaintiffs are public interest groups who might otherwise be barred from obtaining meaningful judicial review,” a nominal bond suffices. *Red Wolf Coal.*, 210 F. Supp. 3d at 807.

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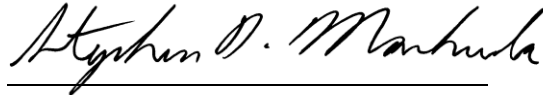
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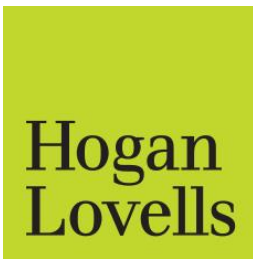
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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Memorandum in Support of Plaintiffs' Motion for a Preliminary Injunction was on this date served upon all counsel of record by filing the same on the Court's ECF system.

Charleston, South Carolina, this 20th day of February, 2019.

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March 26, 2021

Dear Dr. Caroline Good:

Our firm represents Oceana, Inc. in connection with its efforts to protect North Atlantic right whales. On behalf of Oceana, Inc., we submit the enclosed comments on the North Atlantic Right Whale (*Eubalaena glacialis*) Vessel Speed Rule Assessment (June 2020).

Sincerely,

*/s/ Hayley Fink*

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March 26, 2021

Via email: [narw.vesselstrike@noaa.gov](mailto:narw.vesselstrike@noaa.gov)

Attention:

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**Re: Oceana's Comments on the North Atlantic Right Whale (*Eubalaena glacialis*)  
Vessel Speed Rule Assessment (June 2020) by NOAA, National Marine  
Fisheries Service, Office of Protected Resources**

Dear Dr. Caroline Good:

In January 2021, the National Marine Fisheries Service ("Fisheries Service") released for comment its North Atlantic Right Whale (*Eubalaena glacialis*) Vessel Speed Rule Assessment (dated June 2020).<sup>1</sup> Oceana hereby submits these comments on the Vessel Speed Rule Assessment.

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans. More than 1.2 million Americans are Oceana members and supporters, including over 340,000 members and supporters on the U.S. Atlantic seaboard. Oceana has been engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species for more than 15 years. We have a particular interest in greatly reducing, if not eliminating, vessel strike-related death, injury, and harm to the critically endangered North Atlantic right whale ("NARW") and other protected species. Oceana's North Atlantic Right Whale Campaign aims to reduce vessel strikes by advocating for slower, safer vessel speeds. The faster a vessel moves, the more likely it is to strike and kill a NARW. While

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<sup>1</sup> Nat'l Oceanic and Atmospheric Admin., Nat'l Marine Fisheries Service, Office of Protected Resources, *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment – June 2020* [hereinafter "Vessel Speed Rule Assessment"].

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 2 of 42

a vessel strike at any speed is potentially deadly to a NARW, as vessel speeds decline, so do the odds of serious injury or death.<sup>2</sup>

For this reason, Oceana appreciates the opportunity to comment on the National Marine Fisheries Service's ("Fisheries Service") NARW Vessel Speed Rule Assessment with the goal of urging the Fisheries Service to improve upon this analysis to inform future rulemaking, and to request that the Fisheries Service take immediate action to enhance existing regulations to better protect NARWs from vessel strikes. Oceana agrees with many of the Vessel Speed Rule Assessment's overarching conclusions, and supports a number of its recommendations. However, as noted below, certain aspects of the Vessel Speed Rule Assessment have room for improvement. Moreover, Oceana urges the Fisheries Service to go beyond the recommendations contained in the Vessel Speed Rule Assessment, to immediately take the actions described herein.

### **Comments on Vessel Speed Rule Assessment High-Level Conclusions:**

Oceana generally concurs with the following high-level observations in the report:

- “[R]educing vessel speed and separating whales and vessels via routing measures, continue to offer the most effective options available to reduce vessel collisions with right whales in U.S. waters.”<sup>3</sup>
- Reducing vessel speeds remains a critical component in reducing risk of ship strike and resulting mortality and serious injury.<sup>4</sup>
- “This review demonstrates that continued speed restrictions are warranted in light of the positive effect the speed rule has had in reducing the number of serious injuries and mortalities of right whales.”<sup>5</sup>
- The Vessel Speed Rule has been effective in reducing NARW mortalities, but should be strengthened by the Fisheries Service to further protect whales.<sup>6</sup>

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<sup>2</sup> Final Rule To Remove the Sunset Provision of the Final Rule Implementing Vessel Speed Restrictions To Reduce the Threat of Ship Collisions With North Atlantic Right Whales, 78 Fed. Reg. 73,726, 73,728 (Dec. 9, 2013) [hereinafter “2013 Vessel Speed Rule”]. However, it is important to note that “there is no reasonable transiting speed at which large vessels could strike a whale without a large risk of lethally injuring the animal . . . .” Kelley Dan E, P Vlasic James, Brilliant Sean, *Assessing the lethality of ship strikes on whales using simple biophysical models*, Mar Mam Sci. 2020; 1–17 (2020), doi: 0.1111/mms.12745, <https://onlinelibrary.wiley.com/doi/full/10.1111/mms.12745>.

<sup>3</sup> Vessel Speed Rule Assessment at 3.

<sup>4</sup> *Id.* at 1, 3-4.

<sup>5</sup> *Id.* at 36.

<sup>6</sup> *Id.* at i, 35.

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 3 of 42

- The rate of mortalities, serious injury, and injury due to vessel strikes is still concerning, and additional study and measures are needed to further reduce the risk of vessel strike.<sup>7</sup>
- Given the gravity of the NARWs' health and population status and the continuing level of vessel collisions, the rule should be strengthened, and the recent calf deaths underscore the urgent need for effective enhancements to the Vessel Speed Rule.<sup>8</sup>

### Comments on Recommendations in Vessel Speed Rule Assessment:

In addition, Oceana agrees with a number of the Vessel Speed Rule Assessment's recommendations regarding how to strengthen protections for NARWs, including:

- Oceana concurs with the Vessel Speed Rule Assessment's recommendation that "NMFS should investigate the locations and timing of SMAs relative to current right whale distribution and vessel traffic patterns. Given what we know about changes in whale distribution, and vessel traffic patterns since development of the 2008 rule, we need to modify the location, timing, or duration of one or more SMAs to maximize their effectiveness."<sup>9</sup>
- Oceana concurs with the Vessel Speed Rule Assessment's recommendation that the area south of Martha's Vineyard and Nantucket be considered for designation as an SMA.<sup>10</sup> Significant data back up the appropriateness of this designation, and the Fisheries Service should move to do so immediately.
- Oceana agrees with the Vessel Speed Rule Assessment's statement that the waters near Cape Cod is an area of particular concern, and that the Fisheries Service should quickly evaluate whether additional management actions and vessel restrictions are required to protect NARWs.
- The Vessel Speed Rule Assessment recommends that the Fisheries Service either "modify or terminate the DMA program." Oceana opposes termination of the DMA program, because it serves as a valuable complement to the SMA program. Oceana agrees, however, that the DMA program should be modified by making compliance with the 10-knot speed limit within a DMA mandatory.
- Oceana concurs with the Vessel Speed Rule Assessment's recommendation that the Fisheries Service "address vessel strike risk from small vessels,"<sup>11</sup> as well as its statement that "[t]he number of documented and reported small vessel collisions with

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<sup>7</sup> *Id.* at i, 24, 35, 37.

<sup>8</sup> *Id.* at 36.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> *Id.* at 37.

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 4 of 42

whales necessitates further action both as it relates to potential regulations and outreach to this sector of the mariner community.”<sup>12</sup> Oceana urges the Fisheries Service to, at a minimum, extend the speed limit requirement to ships in the 40 foot to 65 foot range.

- Oceana agrees with the Vessel Speed Rule Assessment's conclusion that the “investigation of navigational safety revealed no indication of impacts from implementation of the speed rule.”<sup>13</sup>
- Oceana agrees with the Vessel Speed Rule Assessment's recommendation to enhance enforcement and outreach to ensure greater compliance with the rule.<sup>14</sup> The Fisheries Service should immediately announce NARW protection as an enforcement priority, scrutinize exemption claims, pursue more notices of violation, and seek higher penalties.

### **Comments on Improvements to Analysis in Vessel Speed Rule Assessment to Support Future Rulemaking:**

Certain aspects of the Fisheries Service's analysis should be bolstered to inform any future rulemaking to strengthen the Vessel Speed Rule. In order to correct the inadequacies of the Vessel Speed Rule Assessment for use in future rulemaking, Oceana urges the Fisheries Service to take the following actions:

- Measure compliance with the Vessel Speed Rule and cooperation with DMAs using AIS data sent from vessels to satellite receivers in addition to terrestrial receivers.
- Measure compliance with the Vessel Speed Rule and cooperation with DMAs using all available AIS data from all vessels that threaten NARWs with collisions, including vessels less than 65 feet in length or vessels voluntarily carrying and operating AIS equipment.
- Measure compliance with the Vessel Speed Rule using a criterion that counts speeding into an SMA – and only after that point slowing down – as non-compliance, rather than as compliance. Apply a similar approach to measuring cooperation with DMAs.
- Enhance agency's descriptions of the methods underpinning their analyses in order to allow outside stakeholders, scientists, and citizens to repeat the analyses.
- Publicly post the code underpinning the agency's analyses on Code.gov or a similar website in order to allow outside stakeholders, scientists, and citizens to repeat the analyses, and in the interests of transparency.

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<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at i; *id.* at 36 (“With regard to mariner impacts from the vessel speed rule, there was no indication that the rule has eroded navigational safety.”).

<sup>14</sup> *Id.* at 37.



## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 5 of 42

- Develop and use best scientific and commercially available data in choosing among species management alternatives in future rulemaking, as contemplated by the Endangered Species Act, Marine Mammal Protection Act, and other statutes requiring species management and regulation via rigorous analysis of data.

### *Call for Immediate Action:*

In light of the crisis faced by NARWs, Oceana also urges the Fisheries Service to immediately initiate a rulemaking to strengthen the Vessel Speed Rule. Time is of the essence. Accordingly, Oceana urges the Fisheries Service to promulgate interim/emergency regulations to immediately implement as many recommendations as possible, pending promulgation of final regulations. This includes making any voluntary actions (e.g., compliance with Dynamic Management Areas) mandatory, immediately establishing new interim Seasonal Management Areas demonstrated to be important to NARWs (e.g., south of Nantucket/Martha's Vineyard), extending the speed limit to at least vessels in the 40 foot to 65 foot range, and tailoring the blanket exemption from the Vessel Speed Rule for federal agencies. More specifically, Oceana's recommendations for bolstering the Vessel Speed Rule include the following:

- The Fisheries Service should expand the temporal and geographic scope of existing Seasonal Management Areas or "SMAs," and create new SMAs in order to account for changing whale distribution patterns. To identify new SMAs, the Fisheries Service should establish a formal process by which areas repeatedly designated as Dynamic Management Areas or "DMAs" become candidates for new SMAs. One such area that should be designated immediately is the area to the south of Nantucket/Martha's Vineyard. Moreover, existing SMAs should be evaluated to identify whether their duration and geographic scope is sufficient to protect whales, especially given the availability of acoustic monitoring data indicating that whales are using certain areas for large parts of the year, or even year-round.
- The Fisheries Service should make voluntary speed limits in DMAs mandatory. DMAs are an important complement to SMAs, because they allow the agency to impose some level of protection in response to actual, real-time observations of NARWs—even when they appear in places where they have not historically frequented. Given that even the loss of one whale can impede the recovery of the species,<sup>15</sup> DMAs remain important and should be made mandatory.
- The Fisheries Service should require, at a minimum, that vessels in the 40 foot to 65 foot range comply with the 10-knot speed limit, especially given studies indicating that smaller vessels also pose a lethal threat to NARWs,<sup>16</sup> and the recent lethal strikes to

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<sup>15</sup> Studies have indicated that preventing even the death of two adult females a year could be enough to reverse the decline in population that occurred in the 1990s. Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales, 73 Fed. Reg. 60,173, 60,173 (Oct. 10, 2008) [hereinafter "2008 Vessel Speed Rule"].

<sup>16</sup> Kelley, P Vlasic, Brilliant, *Assessing the lethality*, *supra* note 2, at 1–17 (2020).

young calves, including a calf that was killed in February 2021 by a 54-foot vessel traveling at 21 knots.

- The Fisheries Service should narrow and tailor the current blanket exemption for all federal vessels—regardless of agency, type of vessel, or vessel activity.<sup>17</sup> While federal vessels should continue to be exempt when engaging in true emergency, safety, or national security missions, they should be required to adhere to the speed limit when engaging in day-to-day transits and non-time-critical activities—especially given that NARW habitat is heavily transited by federal fleets.<sup>18</sup> Indeed, the Fisheries Service has noted that its ship strike database contains a disproportionately high number of strikes attributable to the USCG and the Navy, although this may be in part due to a higher incidence of reporting.<sup>19</sup>
- The Fisheries Service establish a requirement to issue an annual report evaluating potential opportunities to further enhance the Vessel Speed Rule. Given the rapidly deteriorating circumstances faced by NARWs, periodic reports on a set schedule are necessary to ensure the rule remains adequately protective.

In addition to improvements to the Vessel Speed Rule, Oceana also provides a number of additional complementary recommendations to further protect NARWs from vessel strike. These measures should be implemented as quickly as possible given the current decline of the NARW population and the escalating Unusual Mortality Event. These recommendations include:

- Invest in monitoring efforts and studies to understand changing NARW patterns for use in developing mechanisms to prevent vessel strike;
- Evaluate new and existing ship routing measures to enhance NARW protections;
- Expand AIS requirements to vessels at least in the 40 foot to 65 foot range, both to improve navigational safety, and to allow for compliance monitoring and enforcement of vessel speed restrictions;
- Enhance compliance monitoring and enforcement efforts associated with the Vessel Speed Rule;
- Revise and expand NARW critical habitat to further protect the species from human-caused threats, including vessel strikes;

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<sup>17</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,180.

<sup>18</sup> Bruce A. Russell, *Ship Strike Committee Report on Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales*, at 6 (2001), [https://www.aapa-ports.org/files/PDFs/fnlldrfrpt\\_rtwales.pdf](https://www.aapa-ports.org/files/PDFs/fnlldrfrpt_rtwales.pdf).

<sup>19</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,174; *see also* Gregory K. Silber et al., Nat'l Oceanic & Atmospheric Admin., Nat'l Marine Fisheries Serv., NOAA Technical Memorandum, NMFS-OPR-25, Large Whale Ship Strike Database 3–4 (Jan. 2004), <https://permanent.fdlp.gov/lps118640/lwssdata.pdf> (finding 17.1% and 6.7% of strikes were from Navy and Coast Guard vessels, respectively).

- Ensure the efficacy of project-specific mitigation to prevent vessel strike; and
- Cooperate with Canada to prevent vessel strike.

This comment letter first provides an overview of the crisis faced by the NARW and the significant legal authority afforded to the Fisheries Service and the United States Coast Guard (“USCG”) to protect NARWs from vessel strikes. It then discusses the factual background surrounding the Vessel Speed Rule Assessment. It then provides a number of comments and recommendations regarding the Vessel Speed Rule Assessment’s recommendations and conclusions, as well as data and information contained in the Vessel Speed Rule Assessment. Finally, these comments provide Oceana’s request for immediate action on behalf of the Fisheries Service and the USCG to implement the recommendations described herein.

## I. BACKGROUND

### A. The Existential Threat Facing North Atlantic Right Whales

The NARW is one of the most critically endangered marine mammals in the world. Starting in 2010, the tenuous recovery of NARW reversed and the NARW population has declined at an alarming rate.<sup>20</sup> In October 2020, the Fisheries Service estimated that around 360 whales remain alive, down from the prior year estimate of around 400 whales in January 2018.<sup>21</sup> Additionally, NARWs are experiencing an Unusual Mortality Event (“UME”)—an unexpected stranding event that involves a significant die-off of a marine mammal population and demands immediate response.<sup>22</sup> Overall, the preliminary cumulative total number of NARWs involved in the ongoing Unusual Mortality Event from 2017-2021 has been updated to 49 individuals, 34 whales found dead and 15 whales seriously injured, which represents more than 10% of the current population.<sup>23</sup> NARW reproductive rates are low, and only approximately 85

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<sup>20</sup> Oceana, *Press Release – New Estimate Finds North Atlantic Right Whale Population Plummeting* (Oct. 27, 2020), <https://usa.oceana.org/press-releases/new-estimate-finds-north-atlantic-right-whale-population-plummeting>; *Team Reaches Nearly Unanimous Consensus on Right Whale Survival Measures*, NOAA Fisheries (last updated May 10, 2019), <https://www.fisheries.noaa.gov/feature-story/team-reaches-nearly-unanimous-consensus-right-whale-survival-measures>.

<sup>21</sup> THE ASSOCIATED PRESS, *Population of North Atlantic right whales dips again, to 366* (Oct. 27, 2020), <https://apnews.com/article/maine-f1d8dcf05131240f7203d8bec96dee3d>. The 2019 North Atlantic Right Whale Consortium’s annual report card estimated that only 409 individuals remained at the end of 2018, and found that one type of estimate, the “minimum number alive” method, placed the population as low as 327 in 2018. H.M. Pettis, et al., *North Atlantic Right Whale Consortium 2019 Annual Report Card* 3-4 (2019), <https://www.narwc.org/uploads/1/1/6/6/116623219/2019reportfinal.pdf> (hereinafter “2019 Report card”).

<sup>22</sup> *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> [hereinafter *2017-2021 Unusual Mortality Event*].

<sup>23</sup> *Id.*

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 8 of 42

reproductively active female whales remain.<sup>24</sup> Unless current trends are swiftly reversed, remaining females could drop to precipitous levels leading to the functional extinction of the species.<sup>25</sup> At numbers this low, even the loss of one whale can impede the recovery of the species.<sup>26</sup> Immediate action is urgently needed to halt the UME and prevent further loss of life.<sup>27</sup>

Human-caused vessel strikes and fishing entanglement are the main culprits of the NARW's decline. In fact, one study found that 88% of NARW deaths between 2003 and 2018 in which cause of death was determined were due to anthropogenic trauma; 58% from entanglement, and 42% from ship strikes.<sup>28</sup> Possible exacerbating causes include prey and ecosystem shifts as a result of climate change and related changes in whale behavior.<sup>29</sup>

The anthropogenic threats to NARWs are binational in character, as NARWs primarily inhabit temperate coastal waters of the Atlantic Ocean from eastern Canada down the United States east coast to Florida.<sup>30</sup> Entangling fishing gear is ubiquitous in the NARW habitat in the northeast U.S. waters.<sup>31</sup> Fishing gear lines have been seen wrapped around every part of NARWs' bodies, cutting into their flesh and causing life-threatening infections, and are so strong that they can sever fins and tails and cut into bone.<sup>32</sup> Vessel strikes cause similarly severe trauma, and disproportionately affect NARW mothers, calves, and juveniles.<sup>33</sup> In 2020, one calf was presumed dead after being observed off the coast of Georgia with severe head and mouth injuries from a probable vessel strike, while another was found dead off the New Jersey coast bearing evidence of two separate vessel strikes.<sup>34</sup> Yet again in February 2021, another calf was

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<sup>24</sup> *North Atlantic Right Whales and the Dangers of Vessel Strikes and Entanglement*, NAT'L MARINE FISHERIES SERV. (Feb. 19, 2020), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whales-and-dangers-vessel-strikes-and-entanglement>.

<sup>25</sup> Erin L. Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, 31 *Oceanography* 19, 19–23 (2018).

<sup>26</sup> Studies have indicated that preventing even the death of two adult females a year could be enough to reverse the decline in population that occurred in the 1990s. 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,173.

<sup>27</sup> Oceana, *Last Chance for Survival for NARWs* (Sept. 2019), <https://usa.oceana.org/publications/reports/last-chance-survival-north-atlantic-right-whales>.

<sup>28</sup> S.M. Sharp et al., *Gross and Histopathologic Diagnoses From North Atlantic Right Whale Eubalaena glacialis Mortalities Between 2003 and 2018*, 135 *Diseases of Aquatic Organisms* 1, at 1 (2019), <https://www.int-res.com/articles/feature/d135p001.pdf> (July 3, 2019).

<sup>29</sup> Sean A. Hayes, *North Atlantic Right Whales: A Summary of Stock Status and Factors Driving Their Decline*, NOAA Fisheries, at 7 (Sept. 18, 2018).

<sup>30</sup> *North Atlantic Right Whale*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Mar. 26, 2021).

<sup>31</sup> NOAA Fisheries, *Fact Sheet - Proposed "Risk Reduction Rule" to Modify the Atlantic Large Whale Take Reduction Plan* (Dec. 31, 2020), <https://media.fisheries.noaa.gov/2021-01/TRTFactSheetRev011221.pdf?null>.

<sup>32</sup> Rachel M. Cassoff et al., *Lethal Entanglement in Baleen Whales*, 96 *Diseases of Aquatic Organisms* 175 (2011).

<sup>33</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales, 73 Fed. Reg. 60,173, 60,174 (Oct. 10, 2008) (codified at 50 C.F.R. § 224.105) [hereinafter "2008 Vessel Speed Rule"]. While the exact reason is unknown, the Fisheries Service suspects "one factor may be that pregnant females and females with nursing calves may spend more time at the surface where they are vulnerable to being struck." *Id.*

<sup>34</sup> *North Atlantic Right Whale Calf Injured by Vessel Strike*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-injured>.

found dead off the coast of St. Augustine, Florida with severe propeller wounds and fractured ribs and skull, while at the same time his mother was observed with serious injuries indicative of vessel strike.<sup>35</sup> Florida Fish and Wildlife Conservation Commission investigators determined that the whales had been struck by a 54-foot recreational fishing boat that had been traveling at 21 knots.<sup>36</sup> The deaths of these calves are devastating to a critically endangered population already experiencing a low calving rate.

### B. Legal Authority to Protect NARW from Vessel Strikes

The federal government has ample authority and the legal obligation to protect NARWs under a number of legal regimes, including the Endangered Species Act (“ESA”), the Marine Mammal Protection Act (“MMPA”), and the Coast Guard Authorization Act of 2018, among others. The authority and responsibility to prevent NARWs from vessel strikes primarily rests with the Fisheries Service, which is legally responsible for stewardship of the nation’s marine resources, and the USCG, which is the branch of the U.S. military responsible for maritime law enforcement and shipping regulations. In the past, these two federal agencies have worked collaboratively to implement measures to reduce the temporal and spatial overlap between whales and shipping activity. Other federal agencies that authorize and engage in projects in the Atlantic Ocean also have a responsibility to mitigate and prevent injury and death of NARWs resulting from those projects, and often must do so in consultation with the Fisheries Service.

#### 1. National Marine Fisheries Service

The Fisheries Service is the lead agency that implements the ESA and the MMPA for whales, including NARWs,<sup>37</sup> and thus is one of the primary agencies responsible for protecting NARWs. NARWs have been listed as an “endangered species” since 1970 under a prior version of the modern ESA, the Endangered Species Conservation Act of 1969.<sup>38</sup>

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[vessel-strike](#) (Jan. 13, 2020); *Dead North Atlantic Right Whale Sighted off New Jersey*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/dead-north-atlantic-right-whale-sighted-new-jersey> (last updated June 29, 2020).

<sup>35</sup> *North Atlantic Right Whale Calf Stranded Dead in Florida*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., (Feb. 14, 2021), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida>.

<sup>36</sup> Brie Isom, *FWC Documents Shed New Light on Boat Strike that Killed Right Whale Calf*, (March 12, 2021), [https://www.news4jax.com/news/local/2021/03/12/fwc-documents-shed-new-light-on-boat-strike-that-killed-right-whale-calf/?\\_vfz=medium%3Dsharebar](https://www.news4jax.com/news/local/2021/03/12/fwc-documents-shed-new-light-on-boat-strike-that-killed-right-whale-calf/?_vfz=medium%3Dsharebar).

<sup>37</sup> *Laws and Policies: Marine Mammal Protection Act*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/topic/laws-policies#marine-mammal-protection-act> (last visited Mar. 26, 2021). The Secretary of Commerce has delegated responsibility for protecting whales under the ESA and MMPA to the Fisheries Service.

<sup>38</sup> 50 C.F.R. § 224.101; *see also* Conservation of Endangered Species and Other Fish or Wildlife, 35 Fed. Reg. 8,491, 8,498 (June 2, 1970); Endangered And Threatened Species; Proposed Endangered Status for North Atlantic Right Whales, 71 Fed. Reg. 77,704, 77,706 (Dec. 27, 2006) (“Since 1974, NMFS has maintained the right whale listing as originally listed by the United States Fish and Wildlife Service (USFWS) under the Endangered Species Conservation Act of 1969, the precursor to the Endangered Species Act of 1973 . . . -- *Eubalaena* spp., i.e., all the species within the genus *Eubalaena*.”).

NARWs are also protected by the MMPA, which was passed to prevent marine mammals from diminishing beyond the point at which they cease to be a significant functioning element in their ecosystem and from falling below their optimum sustainable population.<sup>39</sup> In calculating the optimum sustainable population, the Fisheries Service is required to determine the “potential biological removal level,” or “the maximum number of animals, not including natural mortalities, which may be removed from a marine mammal stock while still allowing that stock to reach or maintain its optimum sustainable population.”<sup>40</sup> The potential biological removal (“PBR”) level for NARWs is 0.8—less than one animal per year.<sup>41</sup>

NARWs are deemed to be a “strategic stock” under the MMPA because the level of direct human-caused mortality exceeds the PBR level, and because NARWs are an endangered species.<sup>42</sup> The Fisheries Service has additional authorities to alleviate impacts on strategic stocks. If the Fisheries Service determines, based on a stock assessment or other significant new information, that “impacts on rookeries, mating grounds, or other areas of similar ecological significance to marine mammals may be causing the decline or impeding the recovery of a strategic stock, the Secretary [of Commerce] may develop and implement conservation or management measures to alleviate those impacts.”<sup>43</sup> In addition to being “strategic stocks,” NARWs are considered to be “depleted” under the MMPA, which also provides certain additional protections.<sup>44</sup> The ESA and the MMPA both prohibit unauthorized “take” of NARWs.<sup>45</sup>

Under the ESA and the MMPA, the Fisheries Service has rulemaking authority to strengthen the Vessel Speed Rule to protect NARWs from vessel strike. Section 11 of the ESA gives the Fisheries Service—as well as the Secretary of the Treasury and the Secretary of the Department in which the USCG is operating—broad authority to promulgate any regulation “as may be appropriate” to enforce the ESA.<sup>46</sup> The Fisheries Service has similarly broad rulemaking

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<sup>39</sup> 16 U.S.C. § 1361; *see id.* § 1362(9) (defining optimum sustainable population).

<sup>40</sup> *Id.* § 1362(20).

<sup>41</sup> *See* NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., North Atlantic Right Whale (*Eubalaena glacialis*): Western Atlantic Stock 22 (2020), [https://media.fisheries.noaa.gov/dam-migration/2019\\_sars\\_atlantic\\_northatlanticrightwhale.pdf](https://media.fisheries.noaa.gov/dam-migration/2019_sars_atlantic_northatlanticrightwhale.pdf). [hereinafter “2019 Stock Assessment”]. Indeed, given the population’s fragility, the PBR has long been less than one animal. *See* 2008 Ship Strike Rule, 73 Fed. Reg. at 60,176 (“As a result of low population size for [NARWs], lack of observed population growth, and deaths from human activities, NMFS determined in 2000, and each year since, that the [NARW] population’s ‘Potential Biological Removal’ . . . is zero. That is, under the MMPA, the population can sustain no deaths or serious injuries due to human causes if its recovery is to be assured.”). NOAA’s 2019 stock assessment found a median population abundance estimate of 428. *See* 2019 Stock Assessment at 20.

<sup>42</sup> 16 U.S.C. § 1362(19); *see also* 2019 Stock Assessment at 30-31.

<sup>43</sup> 16 U.S.C. § 1382(e).

<sup>44</sup> *Id.* §§ 1362(1), 1373(a); *see also* *North Atlantic Right Whale*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited Mar. 26, 2021).

<sup>45</sup> 16 U.S.C. § 1538.

<sup>46</sup> *Id.* § 1540(f).

authority under the MMPA. The Fisheries Service has broad power to effectuate its mandate under the MMPA, and “shall prescribe such regulations as are necessary and appropriate to carry out the purposes of [the MMPA].”<sup>47</sup>

Pursuant to these rulemaking authorities, the Fisheries Service has promulgated regulations designed to prevent ship strikes to NARWs including (i) a 1997 prohibition on approaches to NARWs, requiring vessels to maintain a 500-yard buffer distance from whales;<sup>48</sup> and (ii) the 2008 Vessel Speed Rule implementing speed limits as well as the Vessel Speed Rule that is the subject of the Vessel Speed Rule Assessment, which requires vessels greater than or equal to 65 feet in length to follow mandatory 10-knot speed limits during times and places frequented by NARWs (referred to as “Seasonal Management Areas” or “SMAs”).<sup>49</sup> SMAs have been established off the coast of the Southeast, Mid-Atlantic, and Northeast United States.

Pursuant to these authorities, the Fisheries Service has ample authority to enhance the Vessel Ship Speed Rule and to implement the recommendations for strengthening the rule as described herein.

## **2. United States Coast Guard**

The USCG also has significant authority to protect NARWs, as it is responsible under the 2018 Coast Guard Authorization Act for establishing vessel routing measures.<sup>50</sup> The USCG, in coordination with the Fisheries Service, has implemented routing measures, including traffic separation schemes (“TSS”), areas to be avoided (“ATBA”), and recommended routes, to reduce vessel traffic through areas of high NARW density. The USCG also manages two mandatory ship reporting systems (WHALESNORTH and WHALESSOUTH) under which vessels entering core whale habitat must report to the USCG; in return, they receive information regarding recent whale sightings.<sup>51</sup> Moreover, the USCG is charged with enforcing the ESA and MMPA, provides patrols for enforcement, and supports the Fisheries Service’s monitoring efforts.<sup>52</sup>

Under the Coast Guard Authorization Act, the USCG is authorized to “construct, operate, maintain, improve, or expand vessel traffic services that consist of measures for controlling or supervising vessel traffic or for protecting navigation and the marine environment and that may include one or more of reporting and operating requirements, surveillance and communications systems, routing systems, and fairways.”<sup>53</sup> This broad authority to implement “vessel traffic services” extends to “any port or place under the jurisdiction of the United States, in the navigable waters of the United States, or in any area covered by an international agreement

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<sup>47</sup> *Id.* § 1382(a).

<sup>48</sup> *See* 50 C.F.R. § 224.103(c); North Atlantic Right Whale Protection, 62 Fed. Reg. 6,729, 6,736 (Feb. 13, 1997).

<sup>49</sup> 50 C.F.R. § 224.105; 2008 Vessel Speed Rule, 73 Fed. Reg. 60,173, 60,173 (Oct. 10, 2008).

<sup>50</sup> *See* 46 U.S.C. §§ 70001; 70003(a).

<sup>51</sup> *Id.* § 70005(d); 33 C.F.R. § 169.100.

<sup>52</sup> U.S. COAST GUARD, Port Access Route Study to Analyze Potential Vessel Routing Measures for Reducing Vessel (Ship) Strikes of North Atlantic Right Whales 2–3 (2005).

<sup>112</sup> 46 U.S.C. § 70001(a)(1).

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 12 of 42

negotiated” under the act.<sup>54</sup> Among other things, the Act provides the USCG with authority to “control vessel traffic” in areas with vessel congestion or hazardous circumstances by:

- Specifying times of entry, movement, or departure,
- Establishing vessel traffic routing schemes,
- Establishing vessel size, speed, or draft limitations and vessel operating conditions, and
- Restricting operation, in any hazardous area or under hazardous conditions, to vessels that have particular operating characteristics or capabilities considered necessary for safe operation under the circumstances.<sup>55</sup>

In carrying out these vessel traffic service responsibilities, the USCG is required to take into account “all relevant factors” concerning navigation and safety, as well as “protection of the marine environment” and “environmental factors,” among other things.<sup>56</sup> The USCG is thus expressly directed to consider protecting the marine environment when it promulgates measures to control vessel traffic, and such measures include a broad range of options.

The USCG is also required to “designate necessary fairways and traffic separation schemes for vessels operating in the territorial sea of the United States and in high seas approaches, outside the territorial sea, to such ports or places” in order to provide safe access routes for the movement of vessel traffic proceeding to or from ports or places subject to U.S. jurisdiction.<sup>57</sup> A fairway is a sea lane where artificial structures are not permitted.<sup>58</sup> A traffic separation scheme (“TSS”) is “a designated routing measure which is aimed at the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes.”<sup>59</sup> A TSS separates traffic by having vessels travel in a lane in a particular direction, with lanes separated by a separation zone or line.<sup>60</sup>

Prior to making a TSS or fairway designation, the USCG must undertake a Port Access Route Study (“PARS”), which evaluates traffic density and the need for safe access routes for

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<sup>113</sup> *Id.* The USCG can also “require vessels to install and use specified navigation equipment, communications equipment, electronic relative motion analyzer equipment, or any electronic or other device necessary to comply with a vessel traffic service or that is necessary in the interests of vessel safety.” *Id.* § 70001(a)(3)(A).

<sup>55</sup> *Id.* § 70001(a)(4).

<sup>56</sup> *Id.* § 70004. ESA Section 7(a)(1) requires that all federal agencies shall “utilize their authorities in furtherance of the purposes of” the ESA “by carrying out programs for the conservation of endangered species[.]” 16 U.S.C. § 1536(a)(1).

<sup>57</sup> 46 U.S.C. § 70003(a).

<sup>58</sup> A “fairway” is “a lane or corridor in which no artificial island or fixed structure, whether temporary or permanent, will be permitted.” 33 C.F.R. § 166.105. See also Notice of Study and Request for Comments, Atlantic Coast Port Access Route Study: Port Approaches and International Entry and Departure Transit Areas, 84 Fed. Reg. 9,541, 9,541 (Mar. 15, 2019).

<sup>59</sup> 33 C.F.R. § 167.5(b).

<sup>60</sup> UNITED STATES COAST GUARD, Second Port Access Route Study to Analyze Potential Routing Measures for Reducing Vessel (Ship) Strikes of North Atlantic Right Whales, at 10 (2007) [hereinafter 2007 Port Access Route Study], <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.642.8214&rep=rep1&type=pdf> (last visited Mar. 26, 2021).



vessels in areas for which fairways or TSS are proposed.<sup>61</sup> Once again, the USCG must consider a variety of factors in carrying out such responsibilities, including “protection of the marine environment” and “environmental factors.”<sup>62</sup> The USCG must also consult with other federal agencies, including the Secretary of Commerce, to take into account all other uses of the area under consideration (including establishment of marine or estuarine sanctuaries), and must reconcile the need for safe access routes with all other reasonable uses to the extent practicable.<sup>63</sup> The statute also directs the USCG to issue rules and regulations regarding the use of fairways and TSS, and authorizes the USCG to make their use mandatory for specific types and sizes of vessels if deemed reasonable and necessary.<sup>64</sup>

In connection with such designations, the USCG is also directed to notify cognizant international organizations of any designation and seek the cooperation of foreign States in making it mandatory for vessels under their control to use the fairway or TSS to the same extent required for United States vessels.<sup>65</sup> The USCG is further directed to transmit vessel-traffic related regulations, via the Secretary of State, to appropriate international bodies for consideration as international standards.<sup>66</sup> In practice, this means that the USCG submits proposed routing measures, such as TSS, to the International Maritime Organization (“IMO”) for approval, adoption, and implementation.<sup>67</sup>

### C. Background on the Vessel Speed Rule Assessment

#### 1. History of the Vessel Speed Rule Assessment

The Vessel Speed Rule was originally promulgated by the Fisheries Service in 2008.<sup>68</sup> The Vessel Speed Rule establishes a mandatory 10-knot speed limit for vessels more than 65 feet in length during times and areas frequented by the NARWs, referred to as “Seasonal Management Areas” or “SMAs.”<sup>69</sup> At the same time, the Fisheries Service also created a program whereby it requested cooperation with a voluntary 10-knot speed limit in temporarily designated areas where three or more whales have been observed, referred to as “Dynamic Management Areas” or “DMAs.” Federally-owned vessels were exempted from the rule. The Vessel Speed Rule originally had a sunset provision.

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<sup>61</sup> 46 U.S.C. § 70003(c).

<sup>62</sup> *Id.* § 70004.

<sup>63</sup> *Id.* § 70003(c).

<sup>64</sup> *Id.* § 70003(e).

<sup>65</sup> *Id.*

<sup>66</sup> *Id.* § 70005(a).

<sup>67</sup> 2005 Port Access Route Study at 3.

<sup>68</sup> The Fisheries Service ultimately retained most measures the proposed rule set forth. But it made the following modifications in favor of industry considerations: (1) voluntary – not mandatory – speed restrictions within DMAs, (2) exceptions to speed restrictions in cases of severe oceanographic, meteorological, or hydrographic conditions to maintain navigational safety, (3) reduction in the size and boundaries of SMAs in the Mid-Atlantic to minimize economic impact to vessel operators, and (4) expiration of the rule in December 2013 to allow for analysis of its efficacy, a provision which was ultimately eliminated. 2013 Vessel Speed Rule, 78 Fed. Reg. at 73,729.

<sup>69</sup> 50 C.F.R. §224.105; 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,173.

In 2013, the Fisheries Service amended the Vessel Speed Rule to remove the sunset provision, and to require the Fisheries Service to issue a report evaluating the effectiveness of the Rule.<sup>70</sup> No later than January 1, 2019, the Fisheries Service was required “publish and seek comment on a report evaluating the conservation value and economic and navigational safety impacts of [the rule], including any recommendations to minimize burden of such impacts.”<sup>71</sup> This requirement culminated in the Vessel Speed Rule Assessment. However, the Fisheries Service did not complete the Vessel Speed Rule Assessment until June 2020, and did not publish and seek comment on the assessment until January 2021.

During the rulemaking process for the 2013 Vessel Speed Rule, the Fisheries Service received a number of comments on how to improve the rule to provide greater protections to NARWs. However, while the Fisheries Service stated its intent to evaluate these comments, to “periodically evaluate the efficacy of vessel speed restrictions to ensure they are attaining their intended objectives,” and to potentially initiate a new rulemaking. The Fisheries Service has not yet done so.

## **2. Summary of Vehicle Speed Rule Assessment Data Source, Methods, and Results**

The primary purpose of the Vessel Speed Rule Assessment was to “review of the speed rule to evaluate how effective it is at reducing the incidence of right whale mortality and serious injury due to vessel strikes and where it could be improved.”<sup>72</sup> Below, Oceana briefly summarizes the main features of this analysis.

### **a. Vessel Speed Rule Assessment Data Sources**

The Vessel Speed Rule Assessment relies on data drawn from vessels’ automatic identification system (“AIS”), a GPS-like device that is required on commercial vessels greater than 65 feet in length in order to avoid collisions.<sup>73</sup> AIS works by transmitting vessel data both between vessels via on-board transponders and to costal authorities via terrestrial and satellite receivers. Thus, AIS and the information it provides about vessel speeds is crucial to understanding vessel strike threats to NARWs, and more generally, enhancing safety at sea and enabling monitoring and transparency. Here, the Vessel Speed Rule Assessment used “AIS data from shore-based receivers” alone.<sup>74</sup>

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<sup>70</sup> 2013 Vessel Speed Rule, 78 Fed. Reg. at 73,736; *see* 50 C.F.R. § 224.105(d).

<sup>71</sup> 50 C.F.R. § 224.105(d).

<sup>72</sup> Vessel Speed Rule Assessment at i.

<sup>73</sup> *How it Works*, GLOBAL FISHING WATCH, <https://globalfishingwatch.org/map-and-data/technology/> (last visited March 26, 2021). *See Vessel Requirements for Notices of Arrival and Departure, and Automatic Identification System*, 80 Fed. Reg. 5,281, 5,307 (Jan. 30, 2015).

<sup>74</sup> Vessel Speed Rule Assessment at 8.

**b. Vessel Speed Rule Assessment Methods**

In the Vessel Speed Rule Assessment, the Fisheries Service reported compliance with the Speed Rule within SMAs using distance-weighted average speed. This method totals the distance a vessel travels and notes the speed during each segment of its transit. Each segment’s speed is then multiplied by the fraction of the total distance traveled and summed to produce an average speed weighted by each segment’s contribution.<sup>75</sup>

**c. Vessel Speed Rule Assessment Results**

**i. Summary of Results**

The Vessel Speed Rule Assessment’s main finding was clear – mandatory slower speeds work, but more needs to be done to meet the needs of NARWs and the dictates of the law. As the Fisheries Service notes, “the number of documented vessel strike mortalities and serious injuries decreased from 12 during the 10 years prior to the rule’s implementation to 8 in the 10 years since implementation.”<sup>76</sup> While this decrease in the number of mortalities is an improvement over previous years, the NARW PBR of <1 per year demands further reductions. And while vessel traffic “in active SMAs revealed a reduction in vessel speeds over time, even during periods when SMAs were inactive,”<sup>77</sup> the Fisheries Service noted that it “lack[s] sufficient data” to demonstrate causality between the Vessel Speed Rule and the declined in documented mortalities.<sup>78</sup> Meanwhile, “the voluntary Dynamic Management Area (DMA) program found limited mariner cooperation that fell well short of levels reached in mandatory SMAs.”<sup>79</sup> Significantly, “an economic impact assessment” found manageable costs to regulated industries, mostly to the container ship sector.<sup>80</sup> Overall, the Vessel Speed Rule Assessment stressed that “[m]ariner compliance with the vessel speed rule is critical to [its] effectiveness.”<sup>81</sup> Oceana notes that given the critically endangered nature of the NARW population, compliance approaching 100% is necessary.

**ii. SMA Analysis Results**

The Fisheries Service found varying levels of compliance with SMAs. The Vessel Speed Rule Assessment reported that “the proportion of total vessel transit distance through active SMAs at speeds < 10 knots reached an all-time high (81%) in 2018-2019.”<sup>82</sup> However, “compliance has generally leveled off over the past few years (~79-81%) and a significant amount of vessel traffic (nearly 200,000 nm) continues to transit active SMAs at speeds in

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<sup>75</sup> *Id.* at 9.

<sup>76</sup> *Id.* at i.

<sup>77</sup> *Id.*

<sup>78</sup> Vessel Speed Rule Assessment at 35.

<sup>79</sup> *Id.* at i.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.* at 8.

<sup>82</sup> Vessel Speed Rule Assessment at 12.

excess of 10 knots.”<sup>83</sup> The Fisheries Service found that compliance varied by time, place, and vessel type.

In terms of time, for those vessels subject to the rule, the distance-weighted average speed in active SMAs fell from about 10 knots during the 2008-2009 season to 8.52 knots during the 2018-2019 season. In terms of time, the level of mariner compliance peaked at 81% during 2018-2019.<sup>84</sup> In terms of geographic variation, the Vessel Speed Rule Assessment found higher compliance “in the four most northern SMAs,” while on the other hand, “particularly excessive vessel speeds (> 12 knots)” in the “North Carolina to Georgia SMA.”<sup>85</sup> Cape Cod Bay, Race Point, and Great South Channel SMAs had compliance rates greater than 80% overall years, while the North Carolina to Georgia SMA had the lowest compliance rate at about 63%.

Compliance varied among types of vessels as well. In active SMAs, fishing vessels, container ships, and towing or pushing vessels accounted for most of the vessel traffic in all SMAs during 2018-2019. “Vessel compliance varied considerably by vessel type in active SMAs during 2018-2019,” the Vessel Speed Rule Assessment finds. Specifically, “[f]ishing vessels showed the highest level of compliant transit (93%) while other cargo (44%) and pleasure vessels (31%) had particularly low levels of compliance.”

On vessels under 65 feet in length, the Vessel Speed Rule Assessment found that “[t]he best available AIS data indicate that a substantial amount of small vessel traffic traveling at speeds in excess of 10 knots is present in active SMAs particularly in the Mid-Atlantic and to a lesser degree in the southeast.”<sup>86</sup>

Meanwhile, while vessel speeds declined, the Fisheries Service also found that the total distance transited by mid-sized vessels (those over 65 and mostly less than 350 feet long)<sup>87</sup> across all SMAs may have jumped. The total distance transited by mid-sized vessels in active SMAs increased from 131,354 nm in 2008-2009 to 584,424 nm in 2018-2019. “This increase in transit distance is partly an artifact of available AIS data and changes to AIS carriage requirements since the rule came into effect in 2008,” the Vessel Speed Rule Assessment concludes.<sup>88</sup>

### **iii. DMA Analysis Results**

The Vessel Speed Rule Assessment also studied voluntary DMAs. Compliance was generally low. The report “examined vessel operations in 86 DMAs established between January 2010 and May 2019” in waters “off New England and the Mid-Atlantic and off the

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<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> Vessel Speed Rule Assessment at 18.

<sup>87</sup> *Id.* at v.

<sup>88</sup> *Id.* at 10.

coasts of Georgia and Florida,” where NARWs live.<sup>89</sup> “The [median] proportion of vessel traffic cooperating with the 10-knot speed request” in active voluntary DMAs “increased from 35.55% to 50.62%,” a rate the Vessel Speed Rule Assessment characterizes as “modest” and which “fails to approach levels achieved in mandatory SMAs. Only a small portion of vessels are modifying their speed to less than 10 knots within active DMAs.”<sup>90</sup> All in all, the report finds, “[v]essels continue to transit thousands of nautical miles at speeds above 10 knots through active DMAs, where right whales are known to have aggregated.”<sup>91</sup>

The Vessel Speed Rule Assessment found great differences in DMA compliance by type of vessel. “The majority of AIS-equipped small vessel traffic in active SMAs came from four vessel types; pleasure, sailing, pilot and fishing vessels,” according to the data.<sup>92</sup> “Of these, sailing and fishing vessels traveled at lower speeds with nearly 100% of sailing vessel traffic traveling at speeds of under 10 knots,” whereas “more than 50% of pleasure vessel transit distance exceeded 10 knots and that number rose to more than 85% for pilot vessels.”<sup>93</sup> Thus, the Fisheries Service finds, “[g]iven the ubiquity of small pleasure and pilot vessel traffic in some SMAs and the high speeds at which many travel, these vessel types may pose a particular threat to right whales.”<sup>94</sup>

## **II. DISCUSSION**

### **A. Comments on High-Level Conclusions in Vessel Speed Rule Assessment**

Oceana agrees with a number of the Fisheries Services’ overall conclusions, as articulated in the Vessel Speed Rule Assessment. For instance, Oceana agrees with the Assessment’s overall conclusions that:

- “[R]educing vessel speed and separating whales and vessels via routing measures, continue to offer the most effective options available to reduce vessel collisions with right whales in U.S. waters.”<sup>95</sup>
- Reducing vessel speeds remains a critical component in reducing risk of ship strike and resulting mortality and serious injury.<sup>96</sup>

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<sup>89</sup> *Id.* at 16.

<sup>90</sup> *Id.*

<sup>91</sup> Vessel Speed Rule Assessment at 17.

<sup>92</sup> *Id.* at 18.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> Vessel Speed Rule Assessment at 3.

<sup>96</sup> *Id.* at 1 (“Furthermore, modeling indicates the intensity of impact and risk of serious injury and/or mortality increases with higher vessel speed (Vanderlaan and Taggart, 2007; Silber et al. 2010; Conn and Silber, 2013).”); *id.* at 3 (“Numerous modeling exercises have indicated that slowing the speed of vessels reduces the risk of lethal vessel collisions, particularly in areas where right whales are abundant and vessel traffic is common and otherwise traveling at high speeds.”); *id.* at 3-4 (noting that “reducing the speed of vessels transiting through right whale habitat” is one of the three aspects of reducing vessel strike risk).

- “This review demonstrates that continued speed restrictions are warranted in light of the positive effect the speed rule has had in reducing the number of serious injuries and mortalities of right whales.”<sup>97</sup>
- The Vessel Speed Rule has been effective in reducing NARW mortalities, but should be further strengthened by the Fisheries Service to further protect whales.<sup>98</sup>
- The rate of mortalities, serious injury, and injury due to vessel strikes is still concerning, and additional study and measures are needed to further reduce the risk of vessel strike.<sup>99</sup>
- Given the gravity of the whales’ health and population status and the continuing level of vessel collisions, the rule should be strengthened, and the recent calf deaths underscore the urgent need for effective enhancements to the speed rule.<sup>100</sup>

## **B. Comments on Recommendations in Vessel Speed Rule Assessment**

In addition to concurring with these high-level conclusions, Oceana also concurs with a number of the recommendations in the report regarding the need for enhancements in both the Vessel Speed Rule and in the overall management regime designed to protect NARWs. Oceana urges the Fisheries Service to swiftly act on these recommendations. Below, Oceana also provides its own additional comments on ways to further strengthen the recommendations outlined in the Vessel Speed Rule Assessment.

### **1. Evaluation and Recommendations Regarding SMAs**

The Vessel Speed Rule Assessment makes several recommendations regarding the SMA program.

#### **a. Evaluation of SMAs**

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<sup>97</sup> *Id.* at 36.

<sup>98</sup> Vessel Speed Rule Assessment at i (“This overall decline [in mortalities] demonstrates progress but also indicates additional action is warranted to further reduce the threat of vessel collisions.”); *id.* at 35 (“[O]ur assessment shows that the speed rule has had a positive effect in contributing to this change. The decline in mortality is promising and merits the continuation of, if not enhancement to, current management strategies.”).

<sup>99</sup> *Id.* at i; *id.* at 35 (“Since the speed rule was implemented, there has been a decline in the total number of documented right whale vessel strike mortalities but an increase in serious and non-serious injuries. This reflects progress made to date but also demonstrates that more effort is required to further reduce the incidence of vessel strikes.”); *id.* at 37 (“In conclusion, the reduction in observed right whale mortality since 2008 is a promising sign, but the increase in serious injuries and non-serious injuries is cause for concern.”); *id.* at 24 (“The decrease in observed vessel strike mortality is a positive sign, and provides evidence that the speed rule may have helped to reduce mortality. Nonetheless, the increase in injuries (both serious and non-serious) needs to be monitored closely in the future.”).

<sup>100</sup> Vessel Speed Rule Assessment at 36.

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 19 of 42

First, the Assessment recommends that “NMFS should investigate the locations and timing of SMAs relative to current right whale distribution and vessel traffic patterns. Given what we know about changes in whale distribution, and vessel traffic patterns since development of the 2008 rule, we need to modify the location, timing, or duration of one or more SMAs to maximize their effectiveness.”<sup>101</sup>

Oceana concurs that the Fisheries Service needs to closely monitor and assess NARW distribution patterns and consider a range of alternatives to expand existing SMAs or create new SMAs accordingly. The Fisheries Service has recognized, in the last several years, there have been observed shifts in NARW distributions, habitat use, and behaviors due to changing ecosystems and warming waters, particularly in the Gulf of Maine.<sup>102</sup> It is thus vital that the Fisheries Service continue to evaluate and adapt management of existing SMAs to ensure they are continuing to provide sufficient coverage for NARWs, and to establish new or expanded SMAs as necessary.<sup>103</sup> Research indicates that SMAs reduced the number of whale deaths due to ship strikes and supports expanding SMAs to cover additional areas in the NARW migratory corridor.<sup>104</sup> Because SMAs are effective only to the extent they overlap with NARWs in space and time, such efforts are critical.<sup>105</sup> Such efforts will also ensure that decisions made about endangered species utilize the best scientific and commercial data available.<sup>106</sup>

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<sup>101</sup> *Id.*

<sup>102</sup> *Examining the Threats to the North Atlantic Right Whale: Hearing Before the Subcomm. on Water, Oceans, and Wildlife of the H. Comm. on Nat. Res.*, 116th Cong. 1 (2019) [hereinafter Oliver Testimony] (statement of Chris Oliver, Assistant Adm'r for Fisheries, Nat'l Oceanic & Atmospheric Admin.), <https://naturalresources.house.gov/imo/media/doc/Oliver%20Testimony%20WOW%20Ov%20Hrg%2003.07.19.pdf> (NARWs “have made recent, large-scale changes in their habitat use, spending more time farther offshore and to the north”); NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., North Atlantic Right Whale (*Eubalaena glacialis*): Western Atlantic Stock 16 (2018) [hereinafter 2017 NARW STOCK REPORT], <https://www.fisheries.noaa.gov/webdam/download/82311292> (Sept. 2018) (“[T]here seems to have been a considerable change in right whale habitat use patterns in areas where most of the population has been observed in previous years.”). See generally *Marine Mammal Stock Assessment Reports by Species/Stock*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-species-stock> (last updated Mar. 16, 2020).

<sup>103</sup> See 2019 NARW Report Card, <https://www.narwc.org/uploads/1/1/6/6/116623219/2019reportfinal.pdf> (“Over the last several years, right whale distribution and patterns of habitat use have shifted, in some cases dramatically. These shifts have been observed throughout the range of [NARWs] and have direct implications on research and management activities[.]”).

<sup>104</sup> David W. Laist *et al.*, *Effectiveness of Mandatory Vessel Speed Limits for Protecting North Atlantic Right Whales*, 23 ENDANGERED SPECIES RESEARCH 133, 137–141, 145 (2014); see also Julie M. van der Hoop *et al.*, *Vessel Strikes to Large Whales Before and After the 2008 Ship Strike Rule*, CONSERVATION LETTERS, January/February 2015, 8(1), at 24 (finding that vessel-strike mortalities have decreased inside SMAs and increased outside of them since the Ship Strike Rule went into effect), <https://conbio.onlinelibrary.wiley.com/doi/epdf/10.1111/conl.12105> (last updated Feb. 18, 2015).

<sup>105</sup> See NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., NOAA Technical Memorandum NMFS-NE-247, North Atlantic Right Whales - Evaluating Their Recovery Challenges in 2018, at 7 (2018) [hereinafter 2018 NOAA Technical Memorandum], [https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/tm247\\_2\\_.pdf](https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/trt/meetings/September%202018/tm247_2_.pdf) (Sept. 2018); 2008 Vessel Speed Rule, 73 Fed. Reg. 60,173, 60,173 (“[T]he primary cause of the species’ failure to recover is believed to be mortality caused by collisions with ships and entanglement in commercial fishing gear.”).

<sup>106</sup> See 16 U.S.C. § 1536.

Evaluating the efficacy of current SMAs is all the more important because they were intentionally drawn by the Fisheries Service to be tightly constricted to the NARW use patterns that existed prior to 2008. Although the Fisheries Service acknowledged that “creating larger SMAs than those being enacted would provide greater protection for right whales,”<sup>107</sup> the Fisheries Service underscored that “[t]he timing, duration, and geographic extent of the speed restrictions were tightly constricted to reflect right whale movement, distribution, and aggregation patterns to minimize potential impacts to ship operations.”<sup>108</sup> Existing SMAs are thus tightly constrained to the areas NARWs were known to frequent pre-2008 and were not designed with a buffer to account for shifts in NARW behavior. Given that significant changes in NARW patterns have been observed since the SMAs were established, expanding the existing SMAs is necessary.

**b. Establishing an SMA South of Martha’s Vineyard and Nantucket**

In addition, the Assessment also recommends that the area south of Martha’s Vineyard and Nantucket be considered for designation as an SMA.<sup>109</sup> The Assessment further explains that “[d]uring the past 10 years, at least 25% of DMAs were declared in the region south of Martha’s Vineyard and Nantucket, Massachusetts. Right whale foraging activity has steadily increased in this area throughout the years.”<sup>110</sup>

Oceana concurs in this assessment and agrees that an SMA should be designated in this area as soon as possible. Over the last decade, the Fisheries Service has undoubtedly gathered significant additional NARW sighting information, including a record of all of the locations in which it has established DMAs since 2008.<sup>111</sup> The Fisheries Service thus has significant information regarding whale sightings in this area. Indeed, in addition to being an area where a high number of DMAs has been established, it is worth noting that for many of these DMAs there were a large number of whales present in the DMA. For instance, in 2019, the Fisheries Service established twenty-nine DMAs, eighteen of which were south of Nantucket.<sup>112</sup> As another example, the Fisheries Service established a DMA south of Nantucket until February 15, 2020, after 50 NARWs—one-eighth of the total population—were spotted there on January 31, 2020.<sup>113</sup> In addition, a 2017 comprehensive study that surveyed whale locations using passive acoustic monitoring showed a heavy NARW presence in the area south of Nantucket for most of

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<sup>107</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,186.

<sup>108</sup> *Id.* at 60,178; *see also id.* at 60,186 (The Fisheries Service “tightly constrained in time and place seasonal management areas to correspond only to known right whale occurrence.”).

<sup>109</sup> Vessel Speed Rule Assessment at 36.

<sup>110</sup> *Id.*

<sup>111</sup> *See Interactive Monthly DMA Analyses*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., <https://www.nefsc.noaa.gov/rcb/interactive-monthly-dma-analyses/> (last visited Mar. 18, 2020).

<sup>112</sup> 2019 NARW Report Card at 10.

<sup>113</sup> *Caution Urged After Dozens of Right Whales Spotted Near Nantucket*, WBUR (Feb. 5, 2020), <https://www.wbur.org/earthwhile/2020/02/05/north-atlantic-right-whales-new-england>.



the year.<sup>114</sup> In a 2020 technical memorandum, the Fisheries Service itself acknowledge the importance of these areas to NARWs, identifying them as a “[w]ell documented NARW foraging habitats” and “[k]nown primary North Atlantic right whale habitats.”<sup>115</sup>

Establishing a mandatory SMA near Nantucket, rather than activating repeated voluntary DMAs is thus critical to protecting NARWs passing through this area.

**c. Evaluate and Enhance Management Actions Near Cape Cod**

Third, the Vessel Speed Rule Assessment explains that “[t]hree significant vessel collisions have occurred in the area around Cape Cod, Massachusetts, including at least one mortality inside an active SMA.”<sup>116</sup> Accordingly, the Vessel Speed Rule Assessment recommends that “[t]his is an area of particular concern and requires a re-assessment of management actions required to reduce the risk of vessel strikes there.”<sup>117</sup>

Oceana agrees that the waters near Cape Cod is an area of particular concern, and that the Fisheries Service should quickly evaluate whether additional management actions and vessel restrictions are required. Large numbers of whales have recently been observed in various areas around Massachusetts, particularly near Cape Cod Bay. NARWs seem to be increasingly congregating in Cape Cod Bay,<sup>118</sup> with more than two hundred whales spotted in the bay in April 2017, including several calves,<sup>119</sup> and similarly high numbers spotted in 2018, representing over half of the population.<sup>120</sup> Vessel strikes have also been implicated in two mortalities in and around Cape Cod Bay since 2016.<sup>121</sup>

Given the importance of this area, and the fact it presents a high risk of potential ship strikes, the Fisheries Service should analyze this SMA to ensure it is remaining adequately protective. Potential ways to make the SMA more protective include expanding the temporal

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<sup>114</sup> Genevieve E. Davis et al., *Long-Term Passive Acoustic Recordings Track the Changing Distribution of North Atlantic Right Whales (*Eubalaena glacialis*) from 2004 to 2014*, NATURE: SCIENTIFIC REPORTS 7, 13460, at 5 (2017) [hereinafter Davis et al.], <https://www.nature.com/articles/s41598-017-13359-3>.

<sup>115</sup> Erin M. Oleson, Jason Baker, Jay Barlow, Jeff E. Moore, Paul Wade. North Atlantic Right Whale Monitoring and Surveillance: Report and Recommendations of the National Marine Fisheries Service’s Expert Working Group. NOAA Tech. Memo. NMFS-F/OPR-64, 12, 47 (2020), <https://repository.library.noaa.gov/view/noaa/25910>.

<sup>116</sup> Vessel Speed Rule Assessment at 36.

<sup>117</sup> *Id.* at 36-37.

<sup>118</sup> Davis et al. at 2 (“[T]he proportion of the population that uses Cape Cod Bay, in the southern Gulf of Maine, appears to have increased as of late[.]”).

<sup>119</sup> *ANOTHER RECORD DAY! 40% of Right Whale Population Seen in Cape Cod Bay*, CENTER FOR COASTAL STUDIES, <http://coastalstudies.org/another-record-day/> (Apr. 15, 2017).

<sup>120</sup> *Rare North Atlantic Right Whales Return to Cape Cod Bay*, CENTER FOR COASTAL STUDIES, <http://coastalstudies.org/rare-north-atlantic-right-whales-return-to-cape-cod-bay-3/> (Dec. 12, 2018) (“[R]esearchers identified 246 individual whales in Cape Cod Bay between January and May 2018, more than half of the estimated 411 . . . population.”).

<sup>121</sup> H.M. PETTIS ET AL., NORTH ATLANTIC RIGHT WHALE CONSORTIUM 2018 ANNUAL REPORT CARD 11 (2018) [hereinafter 2018 NARW REPORT CARD], [https://www.narwc.org/uploads/1/1/6/6/116623219/2018report\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2018report_cardfinal.pdf).

scope of the SMA and applying speed restrictions in the SMA to smaller vessels. For instance, in December 2018, observers spotted a group of whales entering Cape Cod Bay in the first part of December, confirming that whales are entering the bay earlier than previously thought. Yet the Cape Cod Bay SMA does not start until January 1, and the Off Race Point SMA (which whales likely pass through to get to Cape Cod Bay) does not start until March 1. A longer SMA timeframe for these and other SMAs should be closely evaluated in light of new data and changing behaviors, in order to ensure SMAs are adequately protective. Passive acoustic monitoring data can be utilized to corroborate visual observations to better understand where and when whales are located.

The area should also be evaluated in the context of vessel routing measures with the USCG to ensure that overlap between whales and vessels can be minimized.

#### **d. Compliance and Enforcement**

In addition to making recommendations regarding SMAs, the Vessel Speed Rule Assessment also evaluates the level of mariner compliance with the speed limit. The Assessment found higher levels of compliance overall—81% in 2018-2019—but found areas for improvement in terms of specific types of vessels and specific SMAs, “identifying certain discrete areas of poor compliance stand out and require enhanced attention.”<sup>122</sup> For instance, “[i]n most Seasonal Management Areas (SMAs) more than 85% of vessels subject to the rule maintained speeds under 10 knots, but in some portions of SMAs mariner compliance is low, with rates below 25% for the largest commercial vessels outside four ports in the southeast.”<sup>123</sup>

As observed in the Assessment report, the areas and types of vessels currently exhibiting low levels of compliance should be targeted for enhanced outreach and enforcement in order to promote higher levels of compliance in the future. Oceana agrees that the relative difference in compliance between regions may suggest a need for targeted action but disagrees in the classification of 81% compliance as “high” as this level still suggests hundreds of vessels traveling at illegal speeds, adding risk to the NARWs in the region. The agency must include an assessment of risk associated with varying levels of compliance and work to ensure compliance matches the conservation needs of the species.

## **2. Evaluation and Recommendations Regarding DMAs**

The Assessment recommends that the Fisheries Service either “modify or terminate the DMA program,” concluding that “[m]ariner cooperation with voluntary speed recommendations in DMAs is generally low and as such, likely does not provide a substantive reduction in vessel strike risk.”<sup>124</sup> As such, the assessment underscores that “NMFS should evaluate the DMA program to identify modifications to achieve more meaningful protections for right whales.”<sup>125</sup>

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<sup>122</sup> Vessel Speed Rule Assessment at i, 35

<sup>123</sup> *Id.* at i.

<sup>124</sup> *Id.* at 37.

<sup>125</sup> *Id.*

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 23 of 42

Oceana concurs with the agency's conclusion that mariner compliance in DMAs needs to be strengthened. Indeed, the Vessel Speed Rule Assessment corroborates multiple other studies that have reached similar conclusions, including a recent analysis conducted by Oceana.

In March 2020, Oceana conducted its own analysis of terrestrial and satellite AIS data to assess voluntary cooperation within DMAs.<sup>126</sup> In contrast to the methodology used in the current Vehicle Speed Rule Assessment, Oceana used a more stringent standard of non-cooperation: all vessels with least two AIS signals while in a restricted speed zone with at least one of the two AIS signals over 10 knots were deemed to be non-cooperative. From January 22, 2020 to March 6, 2020, Oceana evaluated voluntary compliance with a DMA established by the Fisheries Service to protect an aggregation of NARWs south of Nantucket and Martha's Vineyard—an area that has contained up to 60 NARWs in recent months.<sup>127</sup> The DMA was in effect until March 29, 2020.<sup>128</sup> Oceana's analysis found that more than 41% of the 446 ships in the area exceeded the voluntary speed limit of 10 knots. Moreover, of the 183 ships exceeding the voluntary speed limit in this DMA, Oceana's analysis found that:

- Most (92%) were large cargo and tanker ships, including one that was more than 1,100 feet long, going as fast as 18.4 knots.
- Nearly all (96%) were flagged to foreign countries such as Panama and Liberia.
- One ship reported a speed over 22 knots, more than twice the voluntary speed limit.<sup>129</sup>

Conversely, Oceana found that 88.4% of the ships transiting through the mandatory SMA near Block Island, Rhode Island were complying with the speed restriction.<sup>130</sup> Various additional studies corroborate the analysis undertaken in the Vessel Speed Rule Assessment and the conclusion that cooperation with the DMA program lags the level of compliance with the mandatory SMA program.<sup>131</sup>

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<sup>126</sup> *Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales*, Oceana, (Mar. 20, 2020), <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right>.

<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> *Id.*; see also Oceana, *Largest Container Ship Ignores Slow Zone Established to Protect North Atlantic Right Whales* (Sept. 22, 2020), <https://usa.oceana.org/press-releases/largest-container-ship-ignores-slow-zone-established-protect-north-atlantic-right>.

<sup>130</sup> *Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales*, Oceana, (Mar. 20, 2020), <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right>.

<sup>131</sup> Kerry M. Lagueux et al., *Response by Vessel Operators to Protection Measures for Right Whales Eubalaena glacialis in the Southeast US Calving Ground*, 74 ENDANG. SPECIES RESEARCH 14, 69 (2011); Nathan Associates Inc., *Economic Analysis of North Atlantic Right Whale Ship Strike Reduction Rule*, at 11, 13 (2012), <https://www.fisheries.noaa.gov/webdam/download/78682937>; G.K. Silber & S. Bettridge, Nat'l Oceanic & Atmospheric Admin., Nat'l Marine Fisheries Serv., NOAA Technical Memorandum NMFS-OPR-48, *An Assessment of the Final Rule to Implement Vessel Speed Restrictions to Reduce the Threat of Vessel Collisions with North Atlantic Right Whales* 34 (2012), <https://repository.library.noaa.gov/view/noaa/4207>.

However, although DMAs have fallen short of their potential promise, the program should be strengthened rather than terminated. Given that even the loss of one whale can impede the recovery of the species,<sup>132</sup> even some improvement in vessel speed reductions is better than none. Second, DMAs are important because they allow the agency to impose some level of protection nimbly and in response to actual, real-time observations of NARWs—even when they appear in places where they have not historically frequented. They thus serve a different function to SMAs, which are vital, and provide more permanent, lasting protections, but that are not as easily adaptable to changing whale patterns.

At the same time, it is imperative that the DMA program be strengthened, because, as the Assessment concludes, “[v]essels continue to transit thousands of nautical miles at speeds above 10 knots through active DMAs, where right whales are known to have aggregated.”<sup>133</sup> Given the urgent situation facing NARWs, immediate action should be taken to enhance the efficacy of the DMA program. Oceana urges the Fisheries Service to strengthen the DMA program by making adherence to the 10-knot speed limit mandatory. Making the speed limit inside DMAs mandatory will likely increase the likelihood of compliance, and will allow for potential enforcement.

Moreover, as noted above, to identify new SMAs, the Fisheries Service should closely track DMA locations and establish a formal process by which areas repeatedly designated as DMAs can become fast-track candidates for new SMAs.<sup>134</sup> This approach will ensure that SMAs continue to reflect of current NARW distributions and use patterns, and remain adequately protective.

### **3. Evaluation and Recommendations Regarding Vessel Size**

The Vessel Speed Rule does not apply to vessels less than 65 feet in length, despite the fact that such vessels pose a significant risk to NARWs.

Accordingly, the Vessel Speed Rule Assessment recommends that the Fisheries Service “address vessel strike risk from small vessels.”<sup>135</sup> The Vessel Speed Rule Assessment further explains that “[s]mall vessels (< 65 ft in length) transiting at speeds in excess of 10 knots are ubiquitous in portions of right whale habitat. The number of documented and reported small vessel collisions with whales necessitates further action both as it relates to potential regulations and outreach to this sector of the mariner community.”<sup>136</sup>

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<sup>132</sup> Studies have indicated that preventing even the death of two adult females a year could be enough to reverse the decline in population that occurred in the 1990s. 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,173.

<sup>133</sup> Vessel Speed Rule Assessment at 17.

<sup>134</sup> Indeed, a technical memorandum issued by the Fisheries Service as far back as 2012 made this recommendation after observing that DMAs were repeatedly being established in certain areas. See Silber & Bettridge, NOAA Technical Memorandum NMFS-OPR-48, An Assessment of the Final Rule, *supra* note 132.

<sup>135</sup> Vessel Speed Rule Assessment at 37.

<sup>136</sup> *Id.*

In support of these recommendations, the Vessel Speed Rule Assessment discusses a number of instances that demonstrate the significant risk posed to NARWs by vessels less than 65 feet in length—referred to as “small vessels” in the report. For instance, the Assessment notes that one study evaluated photographs of NARW propeller wounds to identify vessel size of the wounding vessel. Of 37 records reviewed, 18 of those had sufficient information to evaluate the injury.<sup>137</sup> “Of these, 11 cases (61%) involved small vessels < 65 ft in length, three involved vessels either under or over 65 ft and four were the result of strikes by vessels > 65 ft in length.”<sup>138</sup> The study also identified the vessel size involved in eight mortality or serious injury cases. “In six cases these vessels were > 65 ft in length and in two cases the vessels were found to be under 65 ft. Of these small vessel cases, one was a March 2005 mortality off Georgia where a 43-ft vessel was involved and the other a serious injury from April 2006 in Cape Cod Bay where a right whale was struck by a 50-ft research vessel.”<sup>139</sup>

The Assessment underscores that the “[t]he proportion of small vessels involved in collisions with whales is concerning because the vessel speed rule does not apply to this vessel size class (< 65 ft in length). Small vessel collisions may be less likely to result in a serious injury or mortality, but at least one mortality and one serious injury were the result of small vessel collisions during this period.”<sup>140</sup> Moreover, even sublethal injuries may eventually lead to premature death.

These findings are made more troubling by the high number and percentage of vessels in the 40-foot to 65-foot range that traveling above the 10-knot speed limit. The Assessment found that “[t]he best available AIS data indicate that a substantial amount of small vessel traffic traveling at speeds in excess of 10 knots is present in active SMAs particularly in the Mid-Atlantic and to a lesser degree in the southeast. Pleasure and pilot vessels account for the majority of traffic transiting over 10 knots.”<sup>141</sup> Indeed “more than 50% of pleasure vessel transit distance exceeded 10 knots and that number rose to more than 85% for pilot vessels.” The Assessment concluded that “[g]iven the ubiquity of small pleasure and pilot vessel traffic in some SMAs and the high speeds at which many travel, these vessel types may pose a particular threat to right whales.”<sup>142</sup>

The Assessment concludes that “[v]essels under 65 ft in length are known to cause mortalities and injuries in right whales. The speed and characteristics of the small vessel traffic detailed here warrant further assessment.”<sup>143</sup> It further finds that “[t]he number of documented and reported small vessel collisions with whales necessitates further action both as it relates to potential regulations and outreach to this sector of the mariner community.”<sup>144</sup>

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<sup>137</sup> *Id.* at 18.

<sup>138</sup> Vessel Speed Rule Assessment at 18, 36.

<sup>139</sup> *Id.* at 19; 25.

<sup>140</sup> *Id.* at 19.

<sup>141</sup> *Id.* at 18.

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 26 of 42

Oceana concurs with the Fisheries Services' conclusion that vessels less than 65 feet pose a significant threat to NARWs, and that action is needed to address such risks. In fact, according to a recent study, "vessels of all sizes pose a threat to seriously injure or kill whales."<sup>144</sup> Accordingly, Oceana urges the Fisheries Service to extend coverage of the Vessel Speed Rule to apply to vessels in at least the 40-foot to 65-foot range. As outlined in the Assessment, available data indicate that vessels in this range pose a significant risk to NARWs both in terms of documented vessel strike, and in terms of the prevalence of these vessels and the speeds at which they travel. NARWs typically grow from 45 to 55 feet in length, which means that vessels less than 65 feet in length could still be expected to cause significant injury or death, particularly for juveniles or calves.<sup>145</sup> Moreover, even if whales survive strikes from smaller vessels in the immediate aftermath, the injury or sub-lethal effects resulting from such strikes may hasten or eventually lead to their deaths. Notably, The Fisheries Service selected 65 feet as the size threshold for the rule not because scientific studies have demonstrated that vessels under 65 feet do not pose a fatal threat to NARWs, but because that size eligibility threshold is used in certain other regulations (e.g., Automatic Identification System ("AIS") requirements).<sup>146</sup>

As outlined in the Assessment, similar 10-knot speed limits have been applied to vessels under 65 feet in recognition of their threat to NARWs. Notably, Canada recently expanded its 10-knot speed zone in the Gulf of St. Lawrence to include vessels in the 42 to 65 foot range.<sup>147</sup> In addition, in 2019, Massachusetts placed seasonal speed limits on all vessels less than 65 feet in length in Cape Cod Bay.<sup>148</sup> Applying the 10-knot speed limit to vessels less than 65 feet in length thus has precedent as a mechanism to enhance NARW protections.

In conjunction with the expansion of the Vessel Speed Rule, the Fisheries Service should work with the USCG to expand AIS carriage requirements to vessels at least in the 40-foot to 65-foot range. Other entities have AIS requirements for vessels in this range. As one example, the European Union requires AIS on fishing vessels 49 feet (15 meters) and longer.<sup>149</sup> This extension of the AIS requirement should include all vessel types, both commercial and recreational.

As noted in the Assessment, "USCG AIS carriage requirements do not apply to most vessels under 65 feet in length but many smaller vessels voluntarily carry AIS for safety or enjoyment. Because AIS use by small vessels is voluntary, the data are likely biased and not a representative sample of small vessel operations in SMAs. Bearing this in mind, we cannot draw holistic conclusions from this review of small vessel operations."<sup>150</sup> Requiring AIS on these

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<sup>144</sup> Kelley, P Vlasic, Brilliant, *Assessing the lethality*, *supra* note 2, at 1–17.

<sup>145</sup> Bruce A. Russell, Ship Strike Committee Report on Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales 6 (2001), [https://www.aapa-ports.org/files/PDFs/fnlldrfrpt\\_rtwhales.pdf](https://www.aapa-ports.org/files/PDFs/fnlldrfrpt_rtwhales.pdf) ("Recreational vessels, yachts and small passenger vessels for hire whose propellers turn at high rpm can tear apart or kill a young right whale.").

<sup>146</sup> 33 C.F.R. § 164.46.

<sup>147</sup> Vessel Speed Rule Assessment at 7.

<sup>148</sup> *Id.* at 7-8, 37.

<sup>149</sup> *AIS What is It?*, OCEANA, [https://usa.oceana.org/sites/default/files/4046/oceana\\_ais\\_fin\\_all\\_hr.pdf](https://usa.oceana.org/sites/default/files/4046/oceana_ais_fin_all_hr.pdf).

<sup>150</sup> Vessel Speed Rule Assessment at 17.

vessels will allow for the Fisheries Service to track the speed of vessels in this size range to better grasp the threat to NARWs posed by this class of vessels. If the Fisheries Service extends the Vessel Speed Rule to these vessels, it will also promote compliance and enforcement efforts. AIS is a cost-effective tool for increasing transparency and ensuring compliance, as a Class A AIS transponder is a one-time expense, typically costing anywhere from \$749 to \$3,500, and does not require a monthly service fee.<sup>151</sup>

#### 4. Evaluation and Recommendations Regarding Navigational Safety

The Vessel Speed Assessment includes an evaluation of whether the speed limits imposed by the Vessel Speed Rule pose a navigational safety issue, and concludes that this “investigation of navigational safety revealed no indication of impacts from implementation of the speed rule.”<sup>152</sup> In the Assessment, the Fisheries Service discusses a previously-denied petition that was made in 2013 to create an exclusion from the vessel speed limit for “federally-maintained dredged channels and pilot boarding areas (and the immediately adjacent waters) for ports from New York to Jacksonville.”<sup>153</sup> However, the Assessment compared the number of groundings both before and after the effective date of the rule, but found that there was “actually a reduction in grounding events within active SMAs following implementation of the vessel speed rule,” and that “the initiation of the 10-knot speed rule is not associated with an increase in grounding incidents.”<sup>154</sup> The Assessment also evaluated potential concerns in the Port of Charleston, but found that the confluence of conditions likely to raise safety concerns was unlikely to arise.<sup>155</sup>

Accordingly, Oceana urges the Fisheries Service not to create any additional exemptions on the basis of safety and take a hard look at the ongoing need for existing exemptions and exceptions to ensure that they remain effective and are not being abused or circumvented. An exemption for safety already exists in the Vessel Speed Rule, and additional exemptions are not necessary. Moreover, as indicated by the Assessment, there is no data that would justify additional safety-related exemptions at this time.

#### 5. Evaluation and Recommendations Regarding Enforcement

The Vessel Speed Rule Assessment recommends enhanced enforcement and outreach to ensure greater compliance with the rule.<sup>156</sup> Among other things, the Assessment notes that “[t]he agency currently lacks data on the full extent of vessels’ reliance on the safety deviation but there are indications that some vessels may be claiming severe maneuverability constraints without

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<sup>151</sup> *Shipborne AIS Class Comparison*, United States Coast Guard (2020), [https://www.navcen.uscg.gov/pdf/AIS\\_Comparison\\_By\\_Class.pdf](https://www.navcen.uscg.gov/pdf/AIS_Comparison_By_Class.pdf) (last visited Feb 1, 2021).

<sup>152</sup> Vessel Speed Rule Assessment at i (June 2020); *id.* at 36 (“With regard to mariner impacts from the vessel speed rule, there was no indication that the rule has eroded navigational safety.”).

<sup>153</sup> *Id.* at 19.

<sup>154</sup> *Id.* at 20.

<sup>155</sup> *Id.* at 22.

<sup>156</sup> Vessel Speed Rule Assessment at 37.

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 28 of 42

reasonable grounds. There is no efficient mechanism by which the agency can collect such data from the logbook entries required for use of the safety deviation.”<sup>157</sup> To address this issue, the Assessment recommends “to aid enforcement of the speed rule, and to better understand the extent of safety impacts, NMFS should investigate modifications to the regulatory language including possible contemporaneous electronic notification of safety deviations.”

Oceana concurs with this recommendation and agrees that the Fisheries Service should identify a mechanism to hold vessels accountable for their speed and use of the “safety exemption.” Vessel operators can claim an exemption from the mandatory speed limit to maintain maneuverability under adverse conditions. The text of the regulation constrains when this exemption can be claimed to instances where “the vessel is in an area where oceanographic, hydrographic and/or meteorological conditions severely restrict the maneuverability of the vessel.”<sup>158</sup> However, anecdotal evidence suggests that some operators are abusing this exemption by claiming it whenever they exceed the speed limit in SMAs. Currently, vessel operators have to record information regarding speed deviations in their logbooks, but are not required to report such deviations. As noted above, the Assessment concludes that this current approach makes it difficult to evaluate the validity of safety-related exemption claims.

Oceana would support the contemporaneous reporting noted above to improve accountability. Another potential way to improve compliance would be to require annual or bi-annual reporting of such deviations, with a certification (under penalty of perjury) that such reports are true, accurate, and correct, and supported by verifiable oceanographic, hydrographic and/or meteorological conditions, with significant penalties for false reports. This would likely dissuade vessel operators from abusing the exemption. The USCG should also inspect ship logs as a part of regular USCG port state control boardings to check for abuse of the exemption.

In addition to the above, the Vessel Speed Rule Assessment also recommends that enforcement and outreach be targeted to certain SMAs and vessel types, based on the findings of the Assessment.<sup>159</sup> For instance, the Assessment explains that “[v]essels in certain SMAs exceed 10 knots at disproportionately high levels, especially OGVs [Ocean-Going Vessels] in channel entrances. OGVs entering southern ports under pilotage represent an outsized proportion of vessels traveling at excess speed. Additionally, container ships and pleasure vessels disproportionately operate at speeds in excess of 12 knots.”<sup>160</sup>

In terms of past enforcement, the Assessment describes that the NOAA Office of Law Enforcement (“OLE”) and NOAA Office of General Counsel (“NOAA GC”) work together with the USCG to “spearhead a trio of enforcement contacts with mariners each year,” which include: (1) Notices of Violation and Assessment of Administrative Penalty (“NOVAs”) and Written Warnings; (2) Compliance Assistance Letters; and (3) hail and inform efforts by the USCG.<sup>161</sup>

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<sup>157</sup> *Id.*

<sup>158</sup> 50 C.F.R. § 224.105(c).

<sup>159</sup> Vessel Speed Rule Assessment at 37.

<sup>160</sup> *Id.* at 37.

<sup>161</sup> *Id.* at 30-31.



## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 29 of 42

NOAA most often assesses a civil penalty “in cases where a vessel operator(s) has demonstrated a substantial or repeated failure to adhere to the speed rule. Written warnings may be issued by NOAA GC or OLE and are most often issued in less egregious cases.”<sup>162</sup> After describing this enforcement regime, the Assessment explains that “[i]n recent years (2017-2019), NOAA GC, OLE, and USCG have had a total of 178 enforcement related contacts via these three avenues. There were 60 contacts in 2017, 54 in 2018 and 64 in 2019.”<sup>163</sup>

Based on this description, it is not clear how many of the “enforcement contacts” involved a penalty, as opposed to how many did not. Oceana requests that the Fisheries Service further break down these numbers by type, and also provide information regarding the amount of penalties that were sought over these three years. Based on this limited information, it seems likely that enforcement efforts should be further ramped up to promote compliance with the Vessel Speed Rule.

Indeed, according to a 2014 report, the Fisheries Service issued twenty-eight Notices of Violation and Assessments of Civil Penalties (“NOVA”) between November 2010 and September 2012.<sup>164</sup> Despite the hundreds of violations observed, staff limitations required focusing on a small number of vessels exhibiting repeated and flagrant breaches of the speed restrictions. Penalties generally ranged from \$5,750 to \$92,000, with a mean of \$21,845, despite the availability of significantly higher penalties.<sup>165</sup>

Given the dire situation faced by NARWs, the Fisheries Service should significantly increase its enforcement efforts and make compliance with the rule and enforcement priority. As a part of this effort, NOAA should issue more NOVAs, as opposed to other warnings, and should seek penalties large enough to provide proper deterrence, as authorized by the ESA and MMPA, especially for higher speeds and repeat offenders.<sup>166</sup> In determining the proper penalty, NOAA should consider the amount of costs borne by ships that arrive late at their destination. If the cost of being late to port is much higher than the level of fines being imposed by NOAA, the deterrence value of its enforcement efforts will be weakened.

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<sup>162</sup> *Id.*

<sup>163</sup> *Id.* at 31.

<sup>164</sup> Gregory K. Silber, Jeffrey D. Adams & Christopher J. Fonesbeck, *Compliance with Vessel Speed Restrictions to Protect North Atlantic Right Whales*, PEERJ 2:e399, 2014, at 6–7 (June 3, 2014), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060020/>.

<sup>165</sup> During the 2017-2019 timeframe, the Fisheries Service and Coast Guard reportedly had 178 collective “enforcement contacts,” which include NOVAs, compliance assistance letters, and hail and inform contacts with the Coast Guard. Vessel Speed Rule Assessment at 31.

<sup>166</sup> 16 U.S.C. §§ 1540; 1375.

## C. Comments on Improvements to Analysis in Vessel Speed Rule Assessment to Support Future Rulemaking

### 1. Data Sources

Oceana urges the Fisheries Service to make changes to the data sources that inform its reports and rules going forward. These changes will enhance the ability of the government, stakeholders, scientists, and citizens to participate intelligently in the regulatory process and to prevent vessel strikes to NARWs. Specifically, the future reports should continue to include data from *all* vessels that may pose a collision risk to NARWs – even small vessels under 65 feet in length not currently subject to the Vessel Speed Rule. Reports should moreover include data from both terrestrial and satellite AIS receivers.

First, as the Vessel Speed Rule Assessment itself noted, small vessels can play a big role in putting NARWs at risk of a collision (“Given the ubiquity of small pleasure and pilot vessel traffic in some SMAs and the high speeds at which many travel, these vessel types may pose a particular threat to right whales.”).<sup>167</sup> AIS data from these vessels is crucial. As the report also notes, “between 1999 and 2012, sufficient information was available to evaluate 18 injury cases” among NARWs. “Of these, 11 cases (61%) involved small vessels < 65 ft in length, three involved vessels either under or over 65 ft and four were the result of strikes by vessels > 65 ft in length.”<sup>168</sup> Thus, as the Vessel Speed Rule Assessment indicates, the Fisheries Service should continue to use AIS data from small vessels and should augment its role in analyses. As the Vessel Speed Rule Assessment notes, “mariners not required to carry AIS units, such as pleasure boats and sailboats, increasingly do so voluntarily,” and “[a]s a result, the quality and comprehensiveness of AIS data available today far exceed that of earlier years.”<sup>169</sup>

Second, the Fisheries Service should consider satellite receivers’ data alongside terrestrial receivers’ data. Capturing all available AIS data is key to preventing vessel strikes. AIS technology is widely used on vessels (though should be more widely used on smaller vessels), and therefore makes a large pool of vessel data available. As the Vessel Speed Rule Assessment notes, the updated 2016 AIS carriage requirements mandated AIS for all commercial fishing vessels over 65 feet long, causing a surge in AIS traffic data from these types of ships as hundreds of fishing vessels began using AIS for the first time.<sup>170</sup> Vessels less than 65-feet long – often pleasure boats, sailboats, and similar craft – are not required to carry AIS units. But they increasingly do so voluntarily as AIS units become less expensive (as the Vessel Speed Rule Assessment notes)<sup>171</sup> and in order to avoid colliding with other vessels in low-visibility conditions. As a result, the quality and comprehensiveness of AIS data has grown with time.<sup>172</sup>

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<sup>167</sup> Vessel Speed Rule Assessment at 18.

<sup>168</sup> *Id.*

<sup>169</sup> *Id.* at 8.

<sup>170</sup> *Id.*

<sup>171</sup> *Id.*

<sup>172</sup> *Id.*

AIS is also key to the government's and stakeholders' ability to monitor sea traffic. As the Fisheries Service notes, the USCG carriage requirements dictate that most non-military vessels greater than 65 feet in length operate AIS units.<sup>173</sup> If a vessel fails to follow these AIS requirements, or unlawfully disengages their AIS equipment, the government has no way to track undetected vessel traffic.<sup>174</sup>

Thus, given its widespread use and importance, the Fisheries Service should add AIS data gathered by satellite receivers to its reports and analyses informing rulemakings. Shore-based, or terrestrial, AIS receivers – the only type the Vessel Speed Rule Assessment used<sup>175</sup> – can accept data packages from vessels so long as they maintain line of sight with the transmitting vessel. The strongest class of onboard transponders, Class A, can send data to terrestrial receivers from a maximum range of about 60 nautical miles. Class B transponders – which recreational vessels commonly carry and which federal regulations allow fishing vessels to carry<sup>176</sup> – are much less powerful, covering only 40% of that distance. Satellite receivers, meanwhile, do not require a direct line of sight to a vessel and can view 5,000 to 10,000 square kilometers of water at once. Granted, weather and their constant orbits can create gaps in satellites' views. On the whole, however, satellites pick up about 50% more data than terrestrial receivers.

While terrestrial receivers may be cheaper for the government than buying satellite receivers' data, Oceana believes that adding in satellite data would provide a much fuller, richer picture of the vessel strike threat to NARWs. Oceana urges the Fisheries Service to use satellite receivers by procuring satellite receivers' data from private sources operating those receivers, or by increasing sharing of satellite receiver data from other government agencies that already receive it, such as the USCG. Adding satellite data is feasible; Oceana's own Ship Speed Watch tool uses satellite AIS data to shed light on vessel speeds in NARW habitats.<sup>177</sup>

## 2. Methods

### a. Measuring Compliance Using a More Complete Set of Methods

As noted above, the Vessel Speed Rule Assessment reports compliance with the Vessel Speed Rule within SMAs using distance distance-weighted average speed. This method calculates speed per segment of the transit, then produces an average speed weighted by the contribution of each segment to the transit as a whole. Oceana notes that there are other ways to report compliance. Another method would measure compliance against the total number of vessels within an SMA. For example, this approach would yield a 50% compliance figure when 50% of the vessels that went through the SMA exceeded 10 knots at least once. Both methods of reporting compliance are valid, and neither is intrinsically superior. But stakeholders would

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<sup>173</sup> See 80 Fed. Reg. 5281, 5307.

<sup>174</sup> Vessel Speed Rule Assessment at 8.

<sup>175</sup> *Id.*

<sup>176</sup> 33 C.F.R. § 164.46(b)(2)(i).

<sup>177</sup> See *Ship Speed Watch Methodology*, OCEANA, <https://usa.oceana.org/ship-speed-watch-methodology> (last visited March 26, 2021).

benefit in future reports or rulemakings from the use of both methods because the first, distance-focused method gives observers a look at (1) how geographically widespread threats to NARWs are while the second, ship-focused method shows (2) how many separate vessels typically break speed limits and threaten NARWs.

**b. Repeatable Analyses**

Oceana also urges the Fisheries Service to make their analyses repeatable and reproducible by outside stakeholders. Future assessments and rulemakings should convey information about the methods the Fisheries Service uses such that researchers can repeat the same work to verify it. This emphasis on repeatability will enhance the likelihood that the Fisheries Service’s reports and subsequent rulemakings are based on the best scientific and commercial data available and stand up to public, judicial, and scientific scrutiny. The current methods section of the Vessel Speed Assessment Rule (pp. 8-9) provides some helpful information on the Fisheries Service’s methods in calculating speed, classifying vessels, and other matters. But stakeholders would need more information to reproduce the report’s analysis.

Oceana also requests that the Fisheries Service publicly post on the internet the code underlying its analyses. A repository of the code would enable scientists, stakeholders, and others to repeat the agency’s work and suggest future improvements. The code should be organized and posted in a way that would enable visitors to the repository to easily download, sort, examine, and work with the code themselves. Other agencies in the federal government already post repositories of their code on Code.gov, a platform housing the government’s custom code, which promotes its reuse among federal agencies and collaboration with the public.<sup>178</sup>

**c. Data Capable of Informing the Development and Selection of Management Alternatives Meeting ESA and MMPA Goals and Requirements.**

Fundamentally, the ESA and the MMPA require the Fisheries Service and other government agencies to make management determinations based on best scientific and commercial data available and/or the best scientific evidence available.<sup>179</sup> Under the ESA, for example, a listed species is eligible for protections and actions including designation of a critical habitat, consultation with the Fisheries Service when a federal action “may affect” a listed species, the promulgation of regulations, and more.<sup>180</sup> Similarly, under the MMPA, the government may take conservation and management measures if it determines a “strategic stock” of marine mammals is in danger of “depletion.”<sup>181</sup> The selection of these management measures from among all the available alternatives requires sufficient, high-quality data. Taking the steps Oceana outlines above to increase the amount of data available to the Fisheries Service – and the ability of scientists and stakeholders to verify and augment it – will greatly improve the quality,

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<sup>178</sup> See *Sharing America’s Code*, U.S. GENERAL SERV. ADMIN., <https://code.gov/> (last visited March 22, 2021). See also Code-Gov, GITHUB, <https://github.com/GSA/code-gov> (last visited March 22, 2021).

<sup>179</sup> See 16 U.S.C. §§ 1536; 1373(a).

<sup>180</sup> See 16 U.S.C. § 1531 et seq.

<sup>181</sup> See *id.* § 1361 et seq.

robustness, and resilience of the Fisheries Service's decisions concerning crucial species like the NARW.

### III. CALL FOR IMMEDIATE ACTION AND ADDITIONAL RECOMMENDATIONS

The Vessel Speed Rule Assessment demonstrates that vessel strikes remain a major risk for NARWs and that immediate action is needed to protect the NARW from future vessel strikes. North Atlantic right whales are critically endangered to the point where every life lost represents a catastrophic blow to the remaining population—with the Fisheries Service estimating in October 2020 that around 360 whales remained alive in January 2019, down from the prior year estimate of around 400 whales in January 2018.<sup>182</sup> As a part of the ongoing Unusual Mortality Event, at least forty-nine whales have been lost or severely injured since 2017. In June 2019 alone, seven whales were killed, four of which were females of reproductive age; four whales were attributed to vessel strikes, while the cause of death was not determined for the other three whales.<sup>183</sup> Multiple recent calf deaths caused by ship strike are particularly heartbreaking and add to the urgency. In January 2020, one calf was presumed dead after being observed off the coast of Georgia with severe head and mouth injuries from a probable vessel strike, while another was found off the New Jersey coast in June 2020 bearing evidence of two vessel strikes.<sup>184</sup> Yet again in February 2021, another calf was found dead after being struck by a 54-foot long vessel off the coast of St. Augustine, Florida, at the same time his mother was observed with serious injuries indicative of vessel strike.<sup>185</sup>

These continuing deaths and likely-fatal injuries underscore the urgency of implementing enhanced protections for NARWs. Resources must be mobilized to rapidly understand current shifts in NARW behaviors, and to quickly implement policy revisions that account for these shifts to diminish the risk of ship strikes and other fatal events.

Fortunately, the Fisheries Service and the USCG already possess ample authority to implement a number of additional protections for NARWs and to enhance current protections. These agencies should take immediate action to study, evaluate, and implement measures to prevent vessel strikes, and to halt the NARW's ongoing decline.

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<sup>182</sup> THE ASSOCIATED PRESS, *Population of North Atlantic right whales dips again, to 366* (Oct. 27, 2020), <https://apnews.com/article/maine-f1d8dcf05131240f7203d8bec96dee3d>. The 2019 North Atlantic Right Whale Consortium's annual report card estimated that only 409 individuals remained at the end of 2018, and found that one type of estimate, the "minimum number alive" method, placed the population as low as 327 in 2018. H.M. Pettis, et al., North Atlantic Right Whale Consortium 2019 Annual Report Card 3-4 (2019), <https://www.narwc.org/upls/1/1/6/6/116623219/2019reportfinal.pdf>.

<sup>183</sup> 2017-2021 Unusual Mortality Event, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event>.

<sup>184</sup> *North Atlantic Right Whale Calf Injured by Vessel Strike*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-injured-vessel-strike> (Jan. 13, 2020); *Dead North Atlantic Right Whale Sighted off New Jersey*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/dead-north-atlantic-right-whale-sighted-new-jersey> (last updated June 29, 2020).

<sup>185</sup> *North Atlantic Right Whale Calf Stranded Dead in Florida*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., (Feb. 14, 2021), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida>.

Using the authorities under Section 11 of the ESA and Section 112(a) of the MMPA, the Fisheries Service should immediately initiate a notice and comment rulemaking to strengthen NARW speed limit protections. Such action, in combination with the other recommendations outlined below, should be taken as quickly as possible.

### **A. Recommendations to Strengthen Vessel Speed Rule**

The Fisheries Service current speed limit policies fall into two categories: (i) a mandatory 10-knot speed limit for ships greater than 65 feet long in fixed Seasonal Management Areas or “SMAs” where and when whales are historically known to frequent, and (ii) voluntary 10-knot speed limits in temporary Dynamic Management Areas or “DMAs” where whales have recently been observed. The current situation faced by NARWs rises to the level of an emergency, and both of these programs must be strengthened immediately to prevent further loss of life due to vessel strike.

The recommendations below should be implemented as quickly as possible given the escalating death toll of the Unusual Mortality Event. The Fisheries Service should promulgate interim/emergency regulations to immediately implement as many recommendations as possible, pending promulgation of final regulations. This includes making any voluntary actions (e.g., compliance with DMAs) mandatory, immediately establishing new interim SMA areas demonstrated to be important to NARWs (e.g., south of Nantucket/Martha’s Vineyard), extending the speed limit to vessels under 65 feet, and tailoring the blanket exemption for federal agencies, as discussed in more detail below.

To the extent the Fisheries Service determines that review under the National Environmental Policy Act (“NEPA”) is required to issue such emergency/interim regulations, the Fisheries Service should seek to use an emergency alternative arrangement pursuant to NEPA in order to expedite the process.<sup>186</sup> There is precedent for using such alternative procedures where threats to endangered species are concerned.<sup>187</sup> Once these interim/emergency regulations are in place, the Fisheries Service should proceed to conduct a full NEPA analysis and promulgate final, permanent regulations to prevent vessel strike.

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<sup>186</sup> 40 C.F.R. § 1506.11.

<sup>187</sup> See *Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act*, 85 Fed. Reg. 43,304, 43,339 (July 16, 2020) (“CEQ has approved alternative arrangements to allow a wide range of proposed actions in emergency circumstances including catastrophic wildfires, threats to species and their habitat, economic crisis, infectious disease outbreaks, potential dam failures, and insect infestations.”); Council on Environmental Quality, *Emergencies and the National Environmental Policy Act Guidance*, at 1 (Sept. 14, 2020), <https://ceq.doe.gov/docs/nepa-practice/emergencies-and-nepa-guidance-2020.pdf> (“CEQ has approved, and agencies have applied successfully, numerous alternative arrangements to allow a wide range of proposed actions in emergency circumstances including natural disasters, catastrophic wildfires, threats to species and their habitat, economic crisis, infectious disease outbreaks, potential dam failures, and insect infestations.”); see also CEQ, *Alternative Arrangements Pursuant to 40 CFR Section 1506.11 – Emergencies*, [https://ceq.doe.gov/docs/nepa-practice/Alternative\\_Arrangements\\_Chart\\_051419.pdf](https://ceq.doe.gov/docs/nepa-practice/Alternative_Arrangements_Chart_051419.pdf) (last updated May 2019); *Nat’l Audubon Soc. v. Hester*, 801 F.2d 405 (D.C. Cir. 1986).

Oceana's recommendations include the following.

First, the Fisheries Service should expand the temporal and geographic scope of existing SMAs and create new SMAs in order to account for changing whale distribution patterns. The Fisheries Service established the temporal and geographic extent of these SMAs in 2008 and has not updated them to reflect current best available data, shifting whale patterns, or the population's recent decline. As recognized in the Assessment, "[t]he 2008 speed rule included the designation of ten SMAs between Massachusetts and Florida informed by the best available information regarding vessel traffic characteristics and right whale distribution at the time."<sup>188</sup> However, "[s]ince 2010, broad shifts in habitat preference have led to new high use areas in U.S. waters such as the region south of Martha's Vineyard and Nantucket, MA . . . and increased the risk from anthropogenic threats as the whales moved into habitats with fewer protections in Canadian waters . . . ."<sup>189</sup>

Examples of areas that should be made SMAs include:

- The area south of Nantucket and Martha's Vineyard—an area that the Fisheries Service has repeatedly acknowledged is being used by NARWs as key foraging habitat and where 25% of the DMAs in the past 10 years have been declared.<sup>190</sup>
- The areas off the coast of Virginia's Chesapeake/Norfolk Port and Cape Hatteras, where NARWs have been observed in increasing numbers.<sup>191</sup>
- Offshore extension of the New York, New Jersey, Virginia, and other key SMAs in the Mid-Atlantic given increased whale activity.

To identify new SMAs, the Fisheries Service should establish a formal process by which areas repeatedly designated as DMAs become candidates for new SMAs.<sup>192</sup> Moreover, existing SMAs should be evaluated to identify whether their duration is sufficient to protect whales, especially

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<sup>188</sup> Vessel Speed Rule Assessment at vi.

<sup>189</sup> *Id.* at 1.

<sup>190</sup> *Id.* at 1, 36 ("Since 2010, broad shifts in habitat preference have led to new high use areas in U.S. waters such as the region south of Martha's Vineyard and Nantucket, MA[.]"); *North Atlantic Right Whales and the Dangers of Vessel Strikes and Entanglement*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV. (Feb. 19, 2020), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whales-and-dangers-vessel-strikes-and-entanglement>; H.M. PETTIS, ET AL., NORTH ATLANTIC RIGHT WHALE CONSORTIUM 2019 ANNUAL REPORT CARD 12 (2019); *Caution Urged After Dozens of Right Whales Spotted Near Nantucket*, WBUR (Feb. 5, 2020), <https://www.wbur.org/earthwhile/2020/02/05/north-atlantic-right-whales-new-england>.

<sup>191</sup> See, e.g., Genevieve E. Davis et al., *Long-Term Passive Acoustic Recordings Track the Changing Distribution of North Atlantic Right Whales (*Eubalaena glacialis*) from 2004 to 2014*, NATURE: SCIENTIFIC REPORTS 7, 13460, at 5 (Oct. 18, 2017), <https://www.nature.com/articles/s41598-017-13359-3>.

<sup>192</sup> Indeed, a technical memorandum issued by the Fisheries Service as far back as 2012 made this recommendation after observing that DMAs were repeatedly being established in certain areas. See G.K. Silber & S. Bettridge, Nat'l Marine Fisheries Serv., NOAA Technical Memorandum NMFS-OPR-48, *An Assessment of the Final Rule to Implement Vessel Speed Restrictions to Reduce the Threat of Vessel Collisions with North Atlantic Right Whales* 42 (2012), <https://repository.library.noaa.gov/view/noaa/4207>.

given the availability of acoustic monitoring data indicating that whales are using certain areas for large parts of the year, or even year-round.

Second, the Fisheries Service should make voluntary speed limits in DMAs mandatory. A number of studies have shown very low levels of cooperation with voluntary speed limits in DMAs, while showing markedly higher levels of compliance with the mandatory speed limit in SMAs.<sup>193</sup> The Vessel Speed Rule Assessment further confirmed limited mariner cooperation with the voluntary speed limits in DMAs.<sup>194</sup> However, this limited cooperation does not mean that the Fisheries Service should eliminate this program. DMAs fill an important niche by allowing the Fisheries Service to implement protections to quickly react to unexpected aggregations of NARWs. As a part of the 2008 Ship Strike Rule, the Fisheries Service stated that it would monitor voluntary compliance with designated DMAs and stated that “[i]f adherence is not satisfactory, the [Fisheries Service] will consider making them mandatory, through a subsequent rulemaking.”<sup>195</sup> The Fisheries Service should thus now take action to make DMA restrictions mandatory.

Third, exceptions to the mandatory speed limit should be narrowed. Among other things, the Fisheries Service should require vessels less than 65 feet long to comply with the speed limit, especially given studies indicating that smaller vessels also pose a lethal threat to NARWs, and the recent lethal strikes to young calves.<sup>196</sup> Notably, Canada recently expanded its 10-knot speed zone in the Gulf of St. Lawrence to include vessels in the 42 to 65 foot range.<sup>197</sup> Indeed, in the Vessel Speed Rule Assessment, the Fisheries Service acknowledged that vessels under 65 feet “are known to cause mortalities and injuries in right whales,” and that “[t]he number of documented and reported small vessel collisions with whales necessitates further action both as it relates to potential regulations and outreach to this sector of the mariner community.”<sup>198</sup> Yet another death in February 2021 demonstrates all too well the risk posed by vessels less than 65 feet long: a calf was found dead off the coast of St. Augustine, Florida with severe propeller wounds and fractured ribs and skull, at the same time his mother was observed with serious injuries indicative of vessel strike.<sup>199</sup> The Florida Fish and Wildlife Conservation Commission

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<sup>193</sup> See, e.g., *id.*, *Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales*, OCEANA, <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right> (Mar. 20, 2020); Vessel Speed Rule Assessment at 16-17.

<sup>194</sup> Vessel Speed Rule Assessment at 15-17, 37.

<sup>195</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,180; *see also id.* at 60,182.

<sup>196</sup> Kelley Dan E, P Vlasic James, Brilliant Sean, *Assessing the lethality of ship strikes on whales using simple biophysical models*, *Mar Mam Sci.* 2020; 1–17 (2020), doi: 0.1111/mms.12745.

<sup>197</sup> Vessel Speed Rule Assessment at 7, 37.

<sup>198</sup> Vessel Speed Rule Assessment at 18, 35-37.

<sup>199</sup> *North Atlantic Right Whale Calf Stranded Dead in Florida*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., (Feb. 14, 2021), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida>.



## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 37 of 42

determined that the whales had been struck by a 54-foot fishing boat that had been traveling at 21 knots.<sup>200</sup>

The USCG should expand AIS requirements to vessels in the 40-foot to 65-foot range, at a minimum, both to improve navigational safety, and to allow for compliance monitoring and enforcement of vessel speed restrictions.

In addition, the Vessel Speed Rule currently provides a blanket exemption for all federal vessels—regardless of agency, type of vessel, or vessel activity.<sup>201</sup> The Fisheries Service justified this broad exemption because “the national security, navigational, and human safety missions of some agencies may be compromised by mandatory vessel speed restrictions.”<sup>202</sup> While this may be true for “some agencies” engaging in some critical activities, it does not stand to reason that the missions of all agencies would be compromised by speed limits regardless of the type of activities a vessel happens to be engaging in. As such, the exemption is overbroad and could be narrowed to cover only those government activities that actually do implicate national security and safety concerns. The Fisheries Service took a similar approach with respect to state law enforcement vessels—exempting them only if actually engaged in law enforcement or search and rescue duties.<sup>203</sup> While federal vessels should continue to be exempt when engaging in true emergency, safety, or national security missions, they should be required to adhere to the speed limit when engaging in day-to-day transits and non-time-critical activities—especially given that NARW habitat is heavily transited by federal fleets.<sup>204</sup> Indeed, the Fisheries Service has noted that its ship strike database contains a disproportionately high number of strikes attributable to the USCG and the Navy, although this may be in part due to a higher incidence of reporting.<sup>205</sup>

Using the authorities under Section 11 of the ESA and Section 112(a) of the MMPA, the Fisheries Service should immediately initiate a notice and comment rulemaking to strengthen NARW speed limit protections. Research has indicated that mandatory season-long speed limits of 10 knots in SMAs potentially reduced lethal vessel collision risk levels by ~86%.<sup>206</sup> Thus, using the best available data to build on the existing framework presents an opportunity to greatly increase the protections afforded to NARWs.

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<sup>200</sup> Brie Isom, *FWC Documents Shed New Light on Boat Strike that Killed Right Whale Calf*, (March 12, 2021), [https://www.news4jax.com/news/local/2021/03/12/fwc-documents-shed-new-light-on-boat-strike-that-killed-right-whale-calf/?\\_vz=medium%3Dsharebar](https://www.news4jax.com/news/local/2021/03/12/fwc-documents-shed-new-light-on-boat-strike-that-killed-right-whale-calf/?_vz=medium%3Dsharebar).

<sup>201</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,180.

<sup>202</sup> *Id.*

<sup>203</sup> 50 C.F.R. § 224.105(a). The federal vessels exemption also covers foreign sovereign vessels conducting joint exercises with the Navy. *Id.*

<sup>204</sup> Bruce A. Russell, Ship Strike Committee Report on Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales 6 (2001), [https://www.aapa-ports.org/files/PDFs/fnlrdfrprt\\_rtwhales.pdf](https://www.aapa-ports.org/files/PDFs/fnlrdfrprt_rtwhales.pdf) (Aug. 1, 2001).

<sup>205</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,174; *see also* Gregory K. Silber et al., Nat'l Oceanic & Atmospheric Admin., Nat'l Marine Fisheries Serv., NOAA Technical Memorandum, NMFS-OPR-25, Large Whale Ship Strike Database 3–4 (Jan. 2004), <https://permanent.fdlp.gov/lps118640/twssdata.pdf> (finding 17.1% and 6.7% of strikes were from Navy and Coast Guard vessels, respectively).

<sup>206</sup> Conn, P. B., and G. K. Silber, *Vessel speed restrictions reduce risk of collision-related mortality for North Atlantic right whales*, *Ecosphere* 4(4):43 (2013), <http://dx.doi.org/10.1890/ES13-00004.1>.

In addition to the immediate need to enhance the Vessel Speed Rule, Oceana recommends that the Fisheries Service establish a requirement to issue an annual report evaluating potential opportunities to further enhance the Vessel Speed Rule. Given the rapidly deteriorating circumstances faced by NARWs, periodic reports on a set schedule are necessary to ensure the rule remains adequately protective.

## **B. Additional Recommendations**

In addition to the enhancements to the Vessel Speed Rule noted above, the Fisheries Service and USCG should take immediate action to do the following:

- **Invest in Monitoring Efforts and Studies to Understand Changing NARW Patterns for Use in Developing Mechanisms to Prevent Vessel Strike:** The Fisheries Service should invest in a long-term passive acoustic monitoring network to better understand NARW distributions and should synthesize such data with visual and aerial survey data to gain a better understanding of where and when NARWs are most at risk. Implementing a long-term passive acoustic monitoring network would provide a more comprehensive understanding of NARW distributions, as such a network can continuously monitor for whales regardless of weather and sea conditions.<sup>207</sup> The Fisheries Service should also harness advancements in technology to improve NARW monitoring and to obtain the best available data on NARW distributions and behaviors. In addition to passive acoustic monitoring, such technologies include satellite monitoring,<sup>208</sup> and the use of undersea, surface, and aerial drones to supplement more traditional monitoring activities.<sup>209</sup> These monitoring efforts are key to quickly and effectively determining whether or not the geographical and temporal scope of existing SMAs should be expanded. New technologies—such as drones combined with passive acoustic monitoring—have also shown promise in identifying whale locations in near real-time,<sup>210</sup> and could be used to nimbly adopt temporary protections.
- **Evaluate New and Existing Ship Routing Measures to Enhance NARW Protections:** The USCG should conduct a comprehensive port access route study (“PARS”) evaluating new and existing routing measures (e.g., TSS, ATBAs, recommended routes) for the

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<sup>207</sup> See *Tracking Technology: The Science of Finding Whales*, NAT’L OCEANIC & ATMOSPHERIC ADMIN., NAT’L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/tracking-technology-science-finding-whales> (Feb. 1, 2017).

<sup>208</sup> Jennifer Leman, *Why Scientists are Counting Whales from Space*, POPULAR MECHANICS (Jan. 6, 2020), <https://www.popularmechanics.com/science/animals/a30420762/satellites-save-whales/>.

<sup>209</sup> See *How Unmanned Surface Vehicles Use Sound to Count Fish, Whales*, SAILDRONE, <https://www.saildrone.com/news/usv-use-sound-count-fish-locate-whales> (Nov. 10, 2017); Josy O’Donnel, *How Technology is Helping Whale Conservation*, OCEAN ALLIANCE, <https://whale.org/how-technology-is-helping-whale-conservation/> (last visited Feb. 5, 2021).

<sup>210</sup> Mark F. Baumgartner et al., *Slocum Gliders Provide Accurate Near Real-Time Estimates of Baleen Whale Presence From Human-Reviewed Passive Acoustic Detection Information*, FRONTIERS IN MARINE SCIENCE 7, at 1 (Feb. 25, 2020).

purpose of enhancing NARW protections.<sup>211</sup> The USCG undertook a similar effort back in 2005, when it conducted a PARS that delineated recommended routes for vessels traveling through Cape Cod Bay and to ports in Florida and Georgia in order to reduce vessel strikes.<sup>212</sup> Example actions the USCG should take in connection with the PARS include:

- Evaluate and enhance existing routing measures adopted to protect NARWs. As part of its review to ensure the routes remain adequately protective of NARWs, the USCG should make these routes mandatory. Currently, they are only “strongly recommended.”<sup>213</sup>
  - Integrate consideration and implementation of NARW protective measures into all PARS conducted in NARW habitat. For example, the USCG recently announced a PARS to evaluate the adequacy of existing vessel routing measures and to determine whether additional routing measures are necessary in the Northern New York Bight,<sup>214</sup> where calf #3560 was found dead off New Jersey. The USCG should evaluate and implement routing measures to protect NARWs as a part of such PARS.
  - Identify existing routing measures for priority evaluation for the purpose of enhancing NARW protections. For instance, the USCG should move to rapidly evaluate potential measures to protect NARWs in the vicinity of the New York TSS where NARWs are increasingly observed.
  - After completing the PARS, the USCG should quickly move to implement recommendations to protect NARWs, seeking approval from the International Maritime Organization, as necessary.
- **Revise and Expand NARW Critical Habitat to Further Protect the Species From Human-Caused Threats, Including Vessel Strikes:** The Fisheries Service also has the authority to designate critical habitat for endangered species. Section 4 of the ESA provides that “to the maximum extent prudent and determinable,” the Services shall designate critical habitat for listed species.<sup>215</sup> The statute also empowers the Secretary of the Interior and the Secretary of Commerce to issue regulations to protect critical habitats.<sup>216</sup> The Fisheries Service has designated two primary “units” of critical habitat for NARWs—one unit located in the Gulf of Maine and Georges Bank region off the coasts of Massachusetts, New Hampshire, and Maine, and a second unit off the coast of North Carolina, South Carolina, Georgia, and Florida. However, NARW critical habitat

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<sup>211</sup> 46 U.S.C. § 70003; *Port Access Route Studies*, U.S. COAST GUARD, <https://www.dco.uscg.mil/PARS/> (last visited Feb. 5, 2021).

<sup>212</sup> Notice of Study and Request for Comments, *Port Access Routes Study of Potential Vessel Routing Measures to Reduce Vessel Strikes of North Atlantic Right Whales*, 70 Fed. Reg. 8,312, 8,313 (Feb. 18, 2005).

<sup>213</sup> 46 U.S.C. § 70003(e).

<sup>214</sup> Request for comments, *Port Access Route Study: Northern New York Bight*, 85 Fed. Reg. 38,907 (June 29, 2020).

<sup>215</sup> 16 U.S.C. § 1533(a)(3).

<sup>216</sup> 16 U.S.C. §§ 1533; 1540(f).

has not been updated since the beginning of 2016.<sup>217</sup> The Fisheries Service should revise the critical habitat designation for the NARWs in light of new data and information on changing NARW distributions. In particular, the Fisheries Service should revise the critical habitat area in New England to encompass the area south of Nantucket and Martha’s Vineyard, where increasing numbers of whales have been spotted year round.

- **Ensure the Efficacy of Project-Specific NARW Mitigation to Prevent Vessel Strike:** Section 7(a)(2) of the ESA requires federal agencies to consult with the Fisheries Service to “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat[.]”<sup>218</sup> Through this consultation, the Fisheries Service may impose project-specific mitigation measures and conditions, known as “reasonable and prudent measures” (“RPMs”) on the action to protect NARWs and to prevent “take” of NARWs.<sup>219</sup> As noted in the Vessel Speed Rule Assessment “[a]s part of the Section 7 consultation process, NMFS and its federal partners regularly evaluate vessel strike risk to right whales and, where appropriate, NMFS recommends federal agencies implement reasonable and prudent measures to minimize such risk.”<sup>220</sup> Indeed, as the Vessel Speed Assessment further notes, “[a]lthough these vessels are exempt from the speed rule they are not exempt from consultation under Section 7 of the ESA. During consultations, mitigation measures, including speed restrictions, may be recommended to reduce the threat of vessels collisions with right whales.”<sup>221</sup> Thus, through the Section 7 consultation process, mitigation measures to prevent NARW vessel strikes—such as vessel speed limits—can be imposed on projects as a condition of approval. This authority is important because vessels owned by the federal government are currently exempt from the Vessel Speed Rule.<sup>222</sup> The Fisheries Service should narrow the exemption for federal vessels, as noted above. However, at the very least, the Fisheries Service should be imposing speed limits as a part of project-specific consultation, and should re-initiate consultation to impose additional mitigation where warranted. The Fisheries Service should also adaptively manage existing approvals under the MMPA to ensure a negligible impact on NARWs and that mitigation is achieving the least practicable adverse impact on NARWs.
- **Cooperate with Canada to Enhance NARW Protection and Prevent Vessel Strike:** NARW habitat spans the area from Canada down the eastern coast of the United States to Florida. Given that significant casualties have occurred in Canada in recent years, the U.S. and Canada should cooperate to develop complementary management regimes, coordinate monitoring and surveys, and identify best practices to avoid vessel strikes.

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<sup>217</sup> Endangered and Threatened Species; Critical Habitat for Endangered North Atlantic Right Whale, 81 Fed. Reg. 4,838 (Jan. 27, 2016) (codified at 50 C.F.R. § 226.203).

<sup>218</sup> 16 U.S.C. § 1536(a)(2).

<sup>219</sup> *Id.*

<sup>220</sup> Vessel Speed Rule Assessment at 4.

<sup>221</sup> *Id.* at 5.

<sup>222</sup> *Id.* at 4-5; 50 C.F.R. § 224.105.

For example, the U.S. and Canada should form a working group composed of key members of each country’s main NARW-related regulatory bodies that will transparently work with all stakeholders to protect NARWs, and should sign a memorandum of understanding detailing their joint plans. This memorandum of understanding could include an agreement to set mutual standards in key areas such as ship speeds and gear markings.

### **C. Enhance Compliance Monitoring and Enforcement Efforts**

As underscored in the Vessel Speed Rule Assessment, “[m]ariner compliance with the vessel speed rule is critical to effectiveness.”<sup>223</sup> The Fisheries Service and USCG should coordinate to step up efforts to monitor compliance and increase enforcement and should make NARW protection a publicized enforcement priority. The Fisheries Service’s Vessel Speed Rule Assessment provides a detailed assessment of noncompliance across SMAs and vessel types and should be used to set enforcement priorities.<sup>224</sup>

Technological improvements can be used to identify and enhance enforcement against illegal vessel operations. For instance, in July 2020, Oceana launched *Ship Speed Watch*, a tool that uses data from vessel AIS devices to allow users to monitor vessel speeds and positions in near real-time.<sup>225</sup> In addition to identifying violations after the fact, the USCG should monitor AIS data for noncompliance in real-time and should increase its efforts to warn speeding vessels to reduce their speed while they are still in transit. The USCG should also inspect and audit vessel logs as a part of its regular port state control boardings to check for abuse of exemptions claimed to justify noncompliance with the speed limit. In addition, the Vessel Speed Rule Assessment indicates that additional regulatory changes may be necessary to reduce potential exemption abuse, recommending that “NMFS should investigate modifications to the regulatory language including possible contemporaneous electronic notification of safety deviations.”<sup>226</sup> The Fisheries Service should either require such notifications or require annual or bi-annual reporting certifying, under penalty of perjury, that the safety deviations are in accordance with the requirements of the Vessel Speed Rule.

The USCG should also take steps to require continuous AIS transmissions and enforce against vessels that are not properly utilizing or are shutting off their AIS instrumentation. Such behavior not only poses serious safety concerns, but may allow circumvention of the speed rule requirements.

## **IV. CONCLUSION**

Oceana appreciates the opportunity to provide comments on the Vessel Speed Rule Assessment. Oceana reiterates that immediate, decisive action is needed to protect NARWs from vessel strikes, and urges the Fisheries Service, the USCG, and other agencies to take the

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<sup>223</sup> Vessel Speed Rule Assessment at 8.

<sup>224</sup> *Id.* at 11-13, 35 (“areas of poor compliance stand out and require enhanced attention”).

<sup>225</sup> *Ship Speed Watch*, OCEANA, <https://usa.oceana.org/illegal-fishing/ship-speed-watch> (last visited Feb. 5, 2021).

<sup>226</sup> Vessel Speed Rule Assessment at 37.

## Oceana's Comments on the Vessel Speed Rule Assessment

March 26, 2021

Page 42 of 42

actions recommended herein. Fortunately, the relevant federal agencies already possess ample authority to implement a number of protections for NARWs. These agencies should take immediate action to study, evaluate, and implement measures to prevent vessel strikes, and to halt the NARW's ongoing decline.

We appreciate the opportunity to provide input and thank you for your time. We will continue to be engaged in this process moving forward.

Sincerely,



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Whitney Webber  
Campaign Director, Responsible Fishing  
Oceana

cc:

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**Subject:** [EXTERNAL] Oceana - Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters / Request for Action and Virtual Meetings Before September 30

**Date:** Wed, 18 Aug 2021 16:39:22 +0000

**Importance:** High

**Attachments:** Oceana\_ -  
\_Notice\_Letter\_to\_US\_Government\_re\_USMCA\_Art.\_24.27\_Submission\_on\_Enforcement\_Matters\_(08-18-2021).pdf

**Inline-Images:** image001.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Secretary Raimondo, Secretary Mayorkas, and Secretary Haaland as well as copied federal agency officials

On behalf of Oceana and Oceana's Campaign Director for Responsible Fishing, Whitney Webber, I submit the attached notice letter and the following explanation of the purpose of the notice letter.

Due to the many failures to effectively comply with, implement, or enforce the environmental laws and regulations of the United States, immediate action is required by the U S Government to adequately protect North Atlantic Right Whales (NARWs) If immediate action is not taken in short order, the attached letter serves as notification to the U S Government of our intent to file a Submission on Enforcement Matters (SEM) with the Secretariat for the Commission on Environmental Cooperation (CEC) under Article 24 27 of the United States Mexico Canada Agreement (USMCA or the Agreement) The SEM process has been in existence since the implementation of the North American Free Trade Agreement (NAFTA) and the related North American Agreement on Environmental Cooperation When NAFTA was recently replaced by the USMCA, the United States, along with Canada and Mexico, re committed themselves to the SEM process by including it in the

Agreement's Chapter 24 (Environment), ensuring the public's continuing role in monitoring the Parties' explicit commitment to effective enforcement of their environmental laws

Relevant federal agencies and sub agencies or offices of the U S Government that have failed to uphold their legal obligations to protect North Atlantic right whales include the National Marine Fisheries Service (Fisheries Service), NOAA Office of Law Enforcement, and NOAA Office of General Counsel, within the U S Department of Commerce, the U S Coast Guard, within the U S Department of Homeland Security, and the Bureau of Ocean Energy Management (BOEM), within the U S Department of Interior An abundance of evidence, much of which is contained in Oceana's comment letters,<sup>[1]</sup> a prior legal brief,<sup>[2]</sup> and Oceana's July 2021 vessel speed report,<sup>[3]</sup> (all of which will be sent via separate email(s)) demonstrates that the U.S. Government is not effectively enforcing its environmental laws and regulations to protect NARWs from the primary threats caused by commercial fishing and vessel traffic and the additional stressors of climate change, ocean noise, and offshore energy development. In accordance with the requirements of the USMCA, we respectfully submit this notice of evidence of your failure to effectively enforce to you, the heads of the federal agencies charged with compliance, implementation, and enforcement of environmental laws and regulations to protect NARWs. Based on this evidence, which is summarized below, we request *immediate* action to effectively comply with, implement, and enforce the requirements of U.S. environmental law to protect NARWs.

If the U.S. Government declines to take *immediate*, legally required actions by September 30, we intend to file a Submission on Enforcement Matters with the CEC Secretariat to initiate the process described at Articles 24.27 and 24.28 of the USMCA, wherein we will detail, as summarized in the attachment, the U.S. Government's failure to effectively comply with, implement, or enforce environmental laws, including the Endangered Species Act, the Marine Mammal Protection Act, the Coast Guard Authorization Act, the National Environmental Policy Act, and the Outer Continental Shelf Lands Act as well as regulations promulgated under these statutes. Between now and September 30, we welcome virtual meetings with you and/or your staff to discuss this matter in greater detail.

Oceana looks forward to receiving your response. Please direct all correspondence to Whitney Webber at [webber@oceana.org](mailto:webber@oceana.org).

Thank you for your serious consideration of this matter.

All the best,  
Alicia

P.S. Please forward this email and the attached notice letter as needed to ensure it is received by all addressees and any other relevant federal agency officials who should be made aware of this correspondence. Thank you!

**Alicia Cate | Senior Counsel**



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[1] Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021); Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021); Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021); Oceana, *Comment Letter on Port Access Route Study Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020); Oceana and IFAW, *Comment Letter on Five Proposed Incidental Harassment Authorizations for Seismic Airgun Blasting* (July 21, 2017) (all attached).

[2] *South Carolina Coastal Conservation League et al. v. National Marine Fisheries Service*, Memorandum in Support of Plaintiff's Motion for a Preliminary Injunction (Feb. 20, 2019) (attached).

[3] Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)



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August 18, 2021

*Submitted via email*

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**Re: Notice Letter to U.S. Government Regarding USMCA Article 24.27 Submission on Enforcement Matters Due to Failures to Effectively Comply with, Implement, or Enforce Environmental Laws**

Dear Secretary Raimondo, Secretary Mayorkas, and Secretary Haaland:

Oceana is the largest international ocean conservation organization solely focused on protecting the world's oceans, with more than 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the U.S. Atlantic seaboard. For nearly twenty years, Oceana has campaigned to win strategic, directed campaigns that achieve measurable outcomes to help make our oceans more biodiverse and abundant.

Oceana has engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species, with a particular interest in effective bycatch minimization and reduction, if not elimination of, fishing gear entanglement-related death, injury, and harm to protected species, including critically endangered North Atlantic right whales (NARWs). In addition, Oceana is interested in seeing the reduction, if not elimination, of vessel strike-related death, injury, and harm to NARWs. Additional human-caused factors that hinder NARW recovery, such as climate change, ocean noise, and offshore energy development, are also sources of great concern. In 2019, Oceana launched a binational campaign in the United States and Canada to urge the respective governments to effectively comply with, implement, and enforce environmental laws and regulations to protect the species.

Due to the many failures to effectively comply with, implement, or enforce the environmental laws and regulations of the United States, immediate action is required by the U.S. Government to adequately protect NARWs. If immediate action is not taken in short order, this letter serves as notification to the U.S. Government of our intent to file a Submission on Enforcement Matters (SEM) with the Secretariat for the Commission on Environmental Cooperation (CEC) under Article 24.27 of the United States-Mexico-Canada Agreement (USMCA or the Agreement). The SEM process has been in existence since the implementation of the North American Free Trade Agreement (NAFTA) and the related North American Agreement on Environmental Cooperation. When NAFTA was recently replaced by the USMCA, the United States, along with Canada and Mexico, re-committed themselves to the SEM process by including it in the Agreement's Chapter 24 (Environment), ensuring the public's continuing role in monitoring the Parties' explicit commitment to effective enforcement of their environmental laws.

Relevant federal agencies and sub-agencies or offices of the U.S. Government that have failed to uphold their legal obligations to protect North Atlantic right whales include: the National Marine Fisheries Service (Fisheries Service), NOAA Office of Law Enforcement, and NOAA Office of General Counsel, within the U.S. Department of Commerce, the U.S. Coast Guard, within the U.S. Department of Homeland Security, and the Bureau of Ocean Energy Management (BOEM), within the U.S. Department of Interior. An abundance of evidence, much of which is contained in Oceana's comment letters,<sup>1</sup> a prior legal brief,<sup>2</sup> and Oceana's July 2021 vessel speed report,<sup>3</sup> demonstrates that the U.S. Government is not effectively enforcing its environmental laws and regulations to protect NARWs from the primary threats caused by commercial fishing and vessel traffic and the additional stressors of climate change, ocean noise, and offshore energy development. In accordance with the

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<sup>1</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021); Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021); Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021); Oceana, *Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020); Oceana and IFAW, *Comment Letter on Five Proposed Incidental Harassment Authorizations for Seismic Airgun Blasting* (July 21, 2017) (all attached).

<sup>2</sup> *South Carolina Coastal Conservation League et al. v. National Marine Fisheries Service*, Memorandum in Support of Plaintiff's Motion for a Preliminary Injunction (Feb. 20, 2019) (attached).

<sup>3</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

requirements of the USMCA, we respectfully submit this notice of evidence of your failure to effectively enforce to you, the heads of the federal agencies charged with compliance, implementation, and enforcement of environmental laws and regulations to protect NARWs. Based on this evidence, which is summarized below, we request *immediate* action to effectively comply with, implement, and enforce the requirements of U.S. environmental law to protect NARWs.

If the U.S. Government declines to take *immediate*, legally required actions by September 30, we intend to file a Submission on Enforcement Matters with the CEC Secretariat to initiate the process described at Articles 24.27 and 24.28 of the USMCA, wherein we will detail, as summarized below, the U.S. Government’s failure to effectively comply with, implement, or enforce environmental laws, including the Endangered Species Act, the Marine Mammal Protection Act, the Coast Guard Authorization Act, the National Environmental Policy Act, and the Outer Continental Shelf Lands Act as well as regulations promulgated under these statutes. Between now and September 30, we welcome virtual meetings with you and/or your staff to discuss this matter in greater detail.

### **EXECUTIVE SUMMARY**

North Atlantic right whales have been listed as endangered since the advent of the Endangered Species List in 1970,<sup>4</sup> and protected under the Marine Mammal Protection Act since 1972.<sup>5</sup> Since at least 1995, the U.S. Government has acknowledged that human-caused activity – from fishing gear entanglement and vessel strikes – are the principal human-caused sources of NARW mortality and serious injury.<sup>6</sup> Other human activities recognized by the U.S. Government as limiting NARW recovery include climate change, ocean noise, and offshore energy development.<sup>7</sup>

In 2017, the Fisheries Service declared an Unusual Mortality Event (UME) for the North Atlantic right whale, due to the number of deaths. The issuance of a UME demands an immediate response and requires additional federal resources to be devoted to determining and mitigating the sources of excessive mortality.<sup>8</sup> Despite the UME, as of August 18, 2021, 50 whales have been found dead or seriously injured since 2017 (21 dead/5 serious injuries in Canadian waters; 13 dead/11 serious

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<sup>4</sup> 50 C.F.R. § 17.11; 35 Fed. Reg. 8,495 (June 2, 1970); *see also* National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited June 23, 2021).

<sup>5</sup> Since 1973, North Atlantic right whales have been listed as a “depleted” species under the MMPA. 16 U.S.C. § 1362(1); 38 Fed. Reg. 20,564, 20,570 and 20,580 (Aug. 1, 1973). North Atlantic right whales are also a “strategic stock” under the MMPA, which is a marine mammal stock for which the level of direct human-caused mortality exceeds the potential biological removal level (PBR) (less than one for NARWs); is declining and likely to be listed as threatened or endangered under the Endangered Species Act; or is designated as “depleted.” 16 U.S.C. § 1362(19).

<sup>6</sup> National Marine Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western North Atlantic Stock – Stock Assessment* (1995), [https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w\\_508.pdf](https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w_508.pdf);

<sup>7</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited June 23, 2021); National Marine Fisheries Service, *Species in the Spotlight Priority Actions 2021-2025: North Atlantic Right Whale* 13-14, (March 2021), [https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021\\_NARightWhale-FINAL%20508.pdf](https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021_NARightWhale-FINAL%20508.pdf) (noting the need to study climate change, offshore wind energy development, aquaculture, and ocean noise to NARW recovery).

<sup>8</sup> 16 U.S.C. § 1421h; 16 U.S.C. § 1421c.

injuries in U.S. waters).<sup>9</sup> The number of mortalities tallied by the Fisheries Service for purposes of the UME are only those that are observed; however, observed carcasses only account for approximately 36% of all estimated deaths.<sup>10</sup>

The consequences of U.S. Government failure to effectively comply with, implement, or enforce environmental laws and regulations are dire. If U.S. Government inaction continues, the impacts to the remaining North Atlantic right whales, numbering now only around 360 individuals,<sup>11</sup> will make recovery of the species exceedingly difficult and may lead to the first extinction of a large whale species in the Atlantic in modern times.

### *Fishing Gear Entanglement and Vessel Strikes*

Because of the U.S. Government's long-standing failure to effectively comply with, implement, or enforce existing environmental laws and regulations, fishing gear entanglements of NARWs continue in the U.S. Atlantic. Fatal NARW interactions with vessels are occurring at unacceptable rates and show that enforcement of environmental laws and regulations to control vessel traffic in the U.S. Atlantic is lacking. In just the last decade, the Fisheries Service reported that 218 North Atlantic right whales have likely succumbed to fishing gear entanglement and vessel strikes – approximately 24 whale deaths per year.<sup>12</sup> Again, observed deaths of NARWs are a fraction of actual deaths;<sup>13</sup> moreover, even if death is not the result, the sub-lethal health effects of entanglements can stunt NARW growth and reduce reproductive success.<sup>14</sup>

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<sup>9</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021).

<sup>10</sup> Richard M. Pace III et al., *Cryptic Mortality of North Atlantic right whales*, *Conservation Science and Practice* (Feb. 2021), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346> (noting that observed carcasses accounted for only 36% of all estimated death during 1990–2017).

<sup>11</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card – Report to the North Atlantic Right Whale Consortium 4* (2021), [https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf).

<sup>12</sup> Email from Colleen Coogan to Atlantic Large Whale Take Reduction Team Members and Alternates (10-26-2020) (stating that “[s]ince the population peaked at 481 in 2011, after accounting for 103 births, roughly 218 North Atlantic right whales have died of presumed anthropogenic causes—this is a rate of roughly 24 whale deaths per year.”)

<sup>13</sup> Richard M. Pace III et al., *Cryptic Mortality of North Atlantic right whales*, *Conservation Science and Practice* (Feb. 2021), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346> (noting that observed carcasses accounted for only 36% of all estimated death during 1990–2017).

<sup>14</sup> Stewart et al., *Decreasing body lengths in North Atlantic right whales*, *Current Biology* (2021).

### *Additional Stressors to North Atlantic Right Whales*

#### *Climate Change*

Climate change is impacting the abundance and distribution of zooplankton species, including the prey of NARWs, the calanoid copepod (*Calanus finmarchicus*).<sup>15</sup> Even a moderate change in NARW prey can negatively impact NARW fitness.<sup>16</sup> Since at least 2012, NARWs are venturing into new areas in search of food, increasing the risks of fishing gear entanglement and vessel strike as NARWs move into areas without protections in search of prey.<sup>17</sup>

#### *Ocean Noise*

Ocean noise, such as from shipping<sup>18</sup> and offshore energy development (e.g., seismic airgun blasting to explore for offshore oil and gas),<sup>19</sup> is a source of chronic stress for this critically endangered species, resulting in displacement from habitat, communication masking, and vocalization changes. Rather than implementing effective measures to abate ocean noise and reduce stress to the species, in recent years, the U.S. Government has gone so far as to proactively permit seismic airgun blasting – one of the loudest noises in the ocean – in search of oil and gas in the NARWs' habitat along the Atlantic coast.<sup>20</sup> Fortunately for NARWs and other marine species, Oceana and our coalition partners successfully delayed these efforts via litigation until the permits expired unused.

#### *Offshore Energy Development*

Offshore energy development is rapidly expanding along the U.S. Atlantic coast in many of the same areas where NARWs feed, breed, calve, and migrate. If not responsibly sited, built, operated, and decommissioned to consider, avoid, minimize and mitigate effects to NARWs, the expansion of offshore energy poses not only an additional source of stress from ocean noise and disruption of

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<sup>15</sup> Erin L. Meyer-Gutbrod, et al., *Climate-associated changes in prey availability drive reproductive dynamics of the North Atlantic right whale population*, 535 *Marine Ecology Progress Series* 243-258 (Sept. 15, 2015); DOI: <https://doi.org/10.3354/meps11372>; Erin L. Meyer-Gutbrod, et al., *Uncertain recovery of the North Atlantic right whale in a changing ocean*, 24 *Global Change Biology* 455-464 (Sept. 25, 2017); DOI: <https://doi.org/10.1111/gcb.13929>

<sup>16</sup> Julie Marie Van der Hoop et al., *Foraging rates of ram-filtering North Atlantic right whales*, *Functional Ecology* 33(3) (May 2019), <https://www.researchgate.net/publication/333027464> [Foraging rates of ram-filtering North Atlantic right whales](https://www.researchgate.net/publication/333027464).

<sup>17</sup> Erin L. Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, *Oceanography* 31(2): 19-23 (June 2018); DOI: <https://doi.org/10.5670/oceanog.2018.209>; Nicholas R. Record et al., *Rapid Climate-Driven Circulation of Changes Threaten Conservation of Endangered North Atlantic Right Whales*, *Oceanography* (June 2019), [https://tos.org/oceanography/assets/docs/32-2\\_record.pdf](https://tos.org/oceanography/assets/docs/32-2_record.pdf).

<sup>18</sup> Rosalind M. Rolland, et al., *Evidence That Ship Noise Increases Stress in Right Whales*, 279 *Proc. R. Soc. B* 2363-68 (June 22, 2012).

<sup>19</sup> Jonathan Gordon, et al., *A Review of the Effects of Seismic Surveys on Marine Mammals*, 37 *Mar. Technol. Soc. J.* 16-34 (Winter 2004); Forney et al., *Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity*, 32 *Endang. Species Res.* 391-413 (May 8, 2017) (noting that ocean noise can interrupt foraging, causing stress, which can adversely affect reproduction and survival, and displace animals into areas where they face greater anthropogenic risks).

<sup>20</sup> U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean; Notice; Issuance of Five Incidental Harassment Authorizations*, 83 *Fed. Reg.* 63,268 (Dec. 7, 2018).

habitats, but also threats of mortality and serious injury from entanglement and vessel strikes.<sup>21</sup> If multiple offshore energy projects proceed in haste in areas where NARWs are known to frequent with insufficient government efforts to apply precautionary approaches prescribed by law to reduce environmental impacts and enforce mitigation measures, similar to what has occurred for commercial fishing and vessel traffic, the cumulative effect on NARWs – due to increased ocean noise, potential shifts in currents and prey, and vessel strikes – could be disastrous.

As outlined in the Discussion Section below, the U.S. Government’s failures to effectively comply with, implement, or enforce national environmental laws and regulations include:

- Fishing Gear Entanglement: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Fishing Gear Entanglement:
  - The Proposed Fishing Gear Entanglement Risk Reduction Rule Demonstrates the U.S. Government’s Failure to Effectively Comply With, Implement, or Enforce the Marine Mammal Protection Act and the Endangered Species Act;
  - The Draft and Final Environmental Impact Statements Demonstrate the U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce NEPA;
  - The Final Biological Opinion (BiOp) Demonstrates the U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce the Endangered Species Act;
  - General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce ESA Section 10 Requiring Incidental Take Permits for State Fisheries that Interact with Threatened or Endangered Species;
  - General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce the Marine Mammal Authorization Program for Commercial Fisheries, Especially for Threatened or Endangered Species Under the MMPA;
  - General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce Commercial Fishing Violations Under the MMPA or ESA Related to North Atlantic Right Whales;

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<sup>21</sup> National Marine Fisheries Service, *Species in the Spotlight – Priority Actions 2021-2025* 13, [https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021\\_NARightWhale-FINAL%20508.pdf](https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021_NARightWhale-FINAL%20508.pdf).

- Vessel Strikes: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Vessel Strikes:
  - General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce the Coast Guard Authorization Act, the MMPA, the ESA, and NEPA to Protect North Atlantic Right Whales from Vessel Traffic;
  - General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce the 2008 Vessel Speed Rule Under the MMPA to Protect North Atlantic Right Whales;
  - General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce Vessel Speed Violations Under the MMPA or ESA To Protect North Atlantic Right Whales; and
- Additional Threats to North Atlantic Right Whales: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Additional Threats – Climate Change, Ocean Noise, and Offshore Energy Development.

Between now and September 30, we welcome virtual meetings with you and/or your staff to discuss this matter in greater detail.



## **FACTUAL BACKGROUND**

### **I. North Atlantic Right Whales**

North Atlantic right whales are large, baleen whales found primarily in the Atlantic along the east coast of Canada and the United States.<sup>22</sup> The body of a North Atlantic right whale is mostly black with no dorsal fin and irregularly shaped bumpy white patches (callosities) on the head as well as white patches on the abdomen.

Once abundant with a population range between 9,000 to 21,000 animals,<sup>23</sup> the North Atlantic right whale is currently one of the most endangered large whales on the planet.<sup>24</sup> North Atlantic right whales have been listed as endangered since the advent of the Endangered Species List in 1970,<sup>25</sup> and protected under the Marine Mammal Protection Act since 1972.<sup>26</sup> In July 2020, the International Union for Conservation of Nature (IUCN) updated the status of the species to “critically endangered” on its often-cited Red List of Threatened Species.<sup>27</sup> Critically endangered is the highest risk category assigned by IUCN and means that a species has 50% chance or greater of extinction in the wild within 10 years or three generations, whichever is longer.<sup>28</sup>

The species, which was dubbed the “right” whale to kill due to their proximity to shore, slow swimming speed, and tendency to float, suffered greatly from whaling in the early 1900s, resulting in a precipitous drop in the population to an estimated 100 individuals remaining in the Atlantic by the 1920s.<sup>29</sup> The League of Nations banned whaling of NARWs in 1935, and the population

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<sup>22</sup> The U.S. government is responsible under both domestic and international law for the conservation of marine mammals in the exclusive economic zone (EEZ). United Nations Convention on the Law of the Sea, 1833 UNTS 397, 21 ILM 1261 (1982), arts. 55-57 (delineating sovereign rights and jurisdiction of a coastal State in the EEZ out to 200 nautical miles from shore, which includes conserving and managing living natural resources in the water column).

<sup>23</sup> Monsarrat S, Pennino MG, Smith TD, et al. (2016) *A spatially explicit estimate of the prewhaling abundance of the endangered North Atlantic right whale: Eubalaena glacialis Historical Abundance*. Conservation Biology 30: 783–791. doi: 10.1111/cobi.12664; Eugene E. Buck, *CRS Report for Congress – The North Atlantic Right Whale: Federal Management Issues* (Mar. 29, 2001).

<sup>24</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited June 23, 2021).

<sup>25</sup> 50 C.F.R. § 17.11; 35 Fed. Reg. 8,495 (June 2, 1970); see also National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited June 23, 2021).

<sup>26</sup> Since 1973, North Atlantic right whales have been listed as a “depleted” species under the MMPA. 16 U.S.C. § 1362(1); 38 Fed. Reg. 20,564, 20,570 and 20,580 (Aug. 1, 1973). North Atlantic right whales are also a “strategic stock” under the MMPA, which is a marine mammal stock for which the level of direct human-caused mortality exceeds the potential biological removal level (PBR) (less than one for NARWs); is declining and likely to be listed as threatened or endangered under the Endangered Species Act; or is designated as “depleted.” 16 U.S.C. § 1362(19).

<sup>27</sup> IUCN, *Almost a Third of Lemurs and North Atlantic Right Whales Now Critically Endangered – IUCN Red List*, <https://www.iucn.org/news/species/202007/almost-a-third-lemurs-and-north-atlantic-right-whale-now-critically-endangered-iucn-red-list> (July 9, 2020).

<sup>28</sup> IUCN, *Red List Criteria Summary Sheet*, <https://www.iucnredlist.org/resources/summary-sheet> (

<sup>29</sup> Marine Mammal Commission, *Species of Concern - North Atlantic Right Whale*, <https://www.mmc.gov/priority-topics/species-of-concern/north-atlantic-right-whale/> (last visited June 25, 2021).

increased slightly in 2011, with a total just approximately 481 individuals.<sup>30</sup> However, the population has declined since 2011, and, with the exception of 2020, deaths have outnumbered births.<sup>31</sup> Today, only around 360 NARWs remain, with fewer than 80 breeding females.<sup>32</sup>

This slow-moving, whale species migrates annually in the Atlantic between feeding grounds in the north and the calving grounds in the south.<sup>33</sup> While NARWs have been found in various areas of the Atlantic year-round, they are generally found in waters off the Northeast U.S. coast with mothers migrating to the U.S. Southeast in winter months where they calve and nurse their young before migrating north in the spring.<sup>34</sup>

The following chart from the most recent 2020 Stock Assessment for NARWs shows the approximate range (shaded area) and distribution of sightings (dots) of known North Atlantic right whales during the 2014-2018 timeframe based on visual and acoustic surveys.

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<sup>30</sup> Pace RM, Corkeron PJ and Kraus SD (2017) *State-space mark-recapture estimates reveal a recent decline in abundance of North Atlantic right whales*. *Ecology and Evolution* 7: 8730–8741. doi: 10.1002/ece3.3406; see also H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card – Report to the North Atlantic Right Whale Consortium* at Figure 1 and Table 1 (2021),

[https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf).

<sup>31</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card – Report to the North Atlantic Right Whale Consortium* at Figure 1 and Table 1 (2021),

[https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf); Compare National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event* (last updated Aug. 11, 2021),

<https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (indicating deaths since 2017: 17 in 2017; 3 in 2018; 10 in 2019; and 2 in 2020) with National Marine Fisheries Service, *North Atlantic Right Whale Calving Season 2021* (last updated Mar. 18, 2021),

<https://www.fisheries.noaa.gov/national/endangered-species-conservation/north-atlantic-right-whale-calving-season-2021> (indicating births since 2017: 5 in 2017; 0 in 2018; 7 in 2019; 10 in 2020).

<sup>32</sup> H.M. Pettis et al., *North Atlantic Right Whale Consortium 2020 Annual Report Card*,

[https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf); see also Emma Davie, *New population estimate suggests only 356 North Atlantic right whales left*, CBC (Oct. 29, 2020),

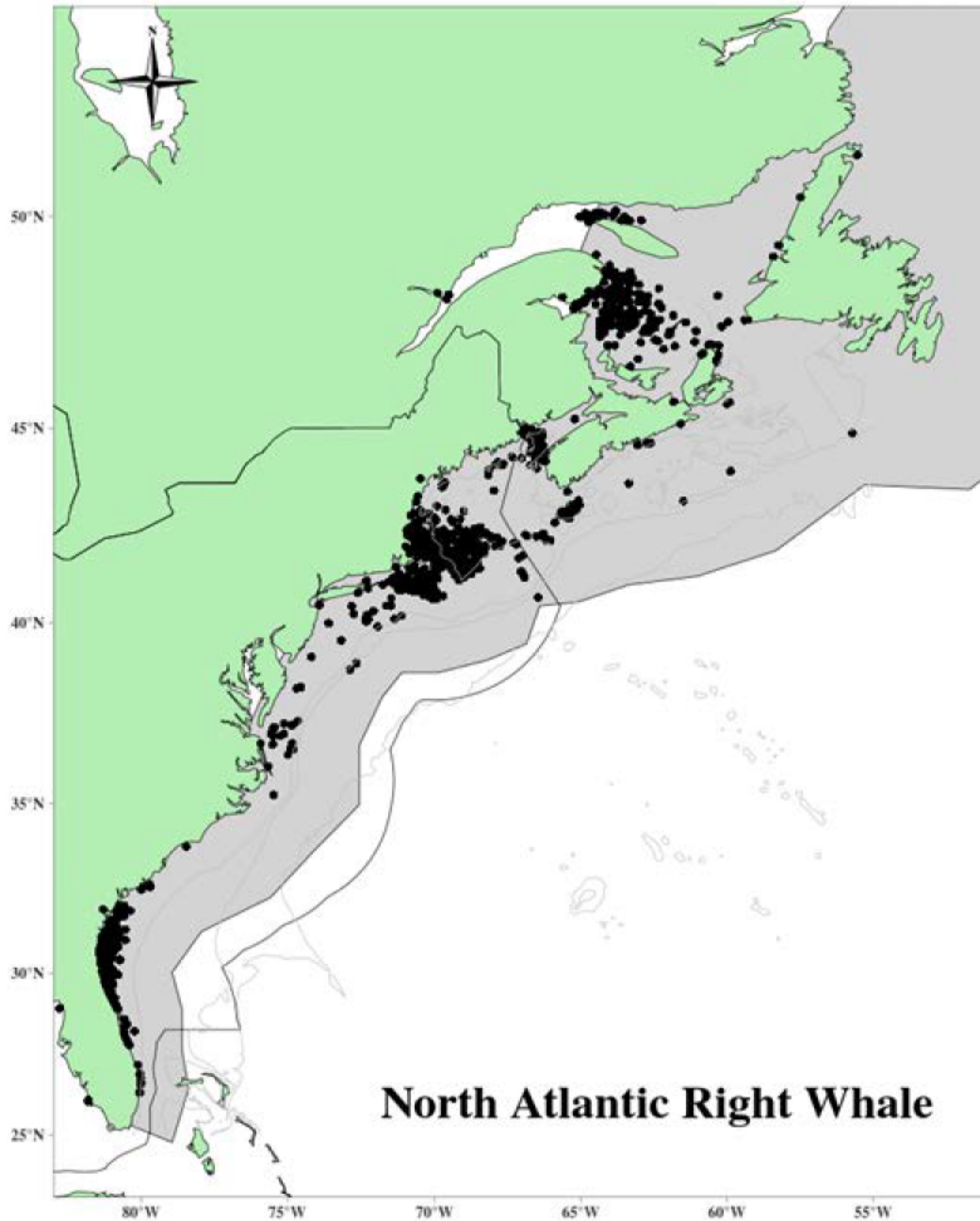
<https://www.cbc.ca/news/canada/nova-scotia/356-north-atlantic-right-whales-left-2020-population-1.5779931> (quoting Philip Hamilton, a research scientist at Anderson Cabot Center for Ocean Life at the New England Aquarium, stating that there are roughly 70 breeding females in the population).

<sup>33</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale - Overview*,

<https://www.fisheries.noaa.gov/species/north-atlantic-right-whale> (last visited June 23, 2021).

<sup>34</sup> Marine Mammal Commission, *Species of Concern - North Atlantic Right Whale*, <https://www.mmc.gov/priority-topics/species-of-concern/north-atlantic-right-whale/> (last visited June 25, 2021); see also National Marine Fisheries Service, NOAA Technical Memorandum NMFS-NE-271: U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2020 at 11-12, Fig. 1 (July 2021), <https://media.fisheries.noaa.gov/2021-07/Atlantic%202020%20SARs%20Final.pdf?null%09> (showing the approximate range (shaded area) and distribution of sightings (dots) of known North Atlantic right whales 2014-2018 based on visual and acoustic surveys) [hereinafter “2020 Stock Assessment”].

**North Atlantic Right Whale Geographic Range**

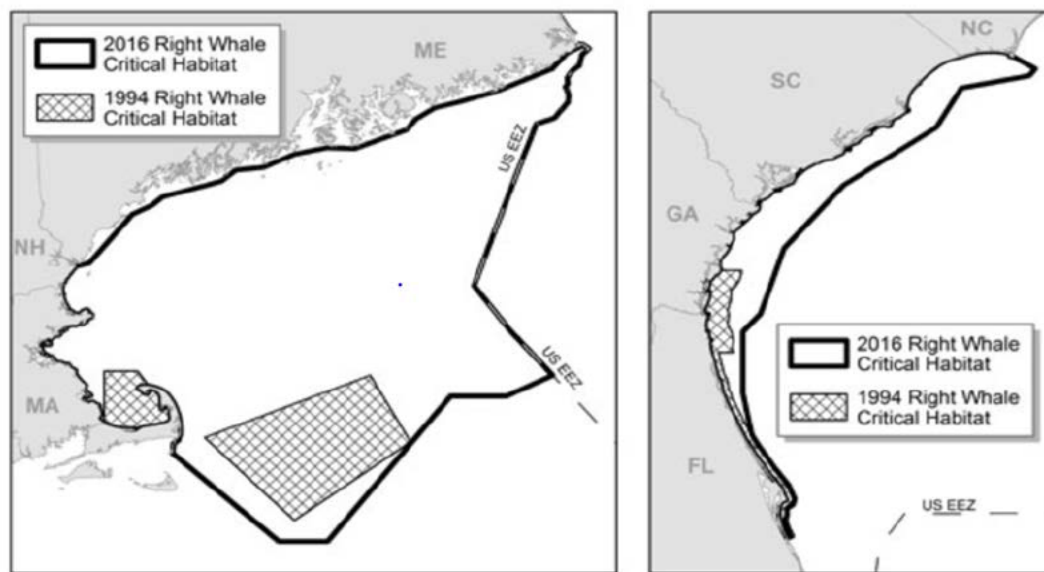


Source: National Marine Fisheries Service<sup>35</sup>

<sup>35</sup> 2020 Stock Assessments at Fig. 1.

Despite being listed as endangered since 1970, the National Marine Fisheries Service did not designate critical habitat for NARWs until 1994 (in response to a 1990 petition),<sup>36</sup> and later modified the critical habitat in 2016 (in response to a 2009 petition).<sup>37</sup> Two areas are designated as critical habitat for NARWs under the Endangered Species Act: the Northeastern U.S. Foraging Area Unit 1 (displayed in the map on the left below) and the Southeastern U.S. Calving Area Unit 2 (displayed in the map on the right below).<sup>38</sup>

**NARW Critical Habitat Areas (1994-2016) and (2016-present)**



Source: National Marine Fisheries Service<sup>39</sup>

<sup>36</sup> National Marine Fisheries Service, *Designated Critical Habitat; Northern Right Whale*, 59 Fed. Reg. (June 3, 1994).

<sup>37</sup> National Marine Fisheries Service, *Critical Habitat for Endangered NARW - Final Rule*, 81 Fed. Reg. 4838 (Jan. 27, 2016).

<sup>38</sup> National Marine Fisheries Service, *Critical Habitat for Endangered NARW - Final Rule*, 81 Fed. Reg. 4838 (Jan. 27, 2016); National Marine Fisheries Service, *North Atlantic Right Whale Critical Habitat Map and GIS Data*, <https://media.fisheries.noaa.gov/dam-migration/map-north-atlantic-right-whale-critical-habitat-garfo-sero.pdf> (last visited June 23, 2021).

<sup>39</sup> National Marine Fisheries Service, *NOAA Expands Critical Habitat for Endangered North Atlantic Right Whales*, [https://www.greateratlantic.fisheries.noaa.gov/mediacenter/2016/january/25\\_noaa\\_expands\\_critical\\_habitat\\_for\\_endangered\\_north\\_atlantic\\_right\\_whales.html](https://www.greateratlantic.fisheries.noaa.gov/mediacenter/2016/january/25_noaa_expands_critical_habitat_for_endangered_north_atlantic_right_whales.html) (Jan. 26, 2016); see also National Marine Fisheries Service, *North Atlantic Right Whale Critical Habitat Map and GIS Data*, <https://www.fisheries.noaa.gov/resource/map/north-atlantic-right-whale-critical-habitat-map-and-gis-data> (last updated Oct. 18, 2019).

Scientists consider the area south of Martha’s Vineyard and Nantucket, the two islands below and outside of Northeastern U.S. Foraging Area Unit 1 in the map on the left above, a “hot spot” for NARWs.<sup>40</sup> NARWs have been found foraging this area in larger numbers in recent years.<sup>41</sup> Best available scientific information, including aerial surveys,<sup>42</sup> acoustic detections,<sup>43</sup> stranding data,<sup>44</sup> a series of Dynamic Management Areas (“DMAs”) declared by NMFS pursuant to the 2008 Vessel Speed Rule,<sup>45</sup> and prey data<sup>46</sup> indicate that North Atlantic right whales now heavily rely on the waters south of Nantucket and Martha’s Vineyard Island.<sup>47</sup> In January 2019, an aggregation representing around a quarter of the population—100 whales—was seen in this area engaged in both foraging and socializing activities, demonstrating that it is clearly more than just a migratory corridor.<sup>48</sup> Pregnant females are known to travel through the area in November and December and

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<sup>40</sup> E. Quintana-Rizzo et al, *Residency, demographics, and movement patterns of North Atlantic right whales *Eubalaena glacialis* in an offshore wind energy development in southern New England, USA*, *Endangered Species Research* Vol. 45: 251-268 (July 29, 2021).

<sup>41</sup> Leiter, S.M. et al., “North Atlantic right whale *Eubalaena glacialis* occurrence in offshore wind energy areas near Massachusetts and Rhode Island, USA,” *Endangered Species Research*, vol. 34, pp. 45-59 (2017).

<sup>42</sup> Kraus, S.D. et al., “Northeast large pelagic survey collaborative aerial and acoustic surveys for large whales and sea turtles. Final Report,” OCS Study, BOEM 2016-054, pp. 118 (2016); Leiter, S.M. et al., “North Atlantic right whale *Eubalaena glacialis* occurrence in offshore wind energy areas near Massachusetts and Rhode Island, USA,” *Endangered Species Research*, vol. 34, pp. 45-59 (2017); Quintana, E., “Monthly report No. 3: May 2017,” Report prepared for the Massachusetts Clean Energy Center by the New England Aquarium, pp. 26 (May 15, 2017).

<sup>43</sup> Kraus, S.D., et al., “Northeast large pelagic survey collaborative aerial and acoustic surveys for large whales and sea turtles. Final Report,” OCS Study, BOEM 2016-054, pp. 118 (2016); Davis, G.E. et al., “Long-term passive acoustic recordings track the changing distribution of North Atlantic right whales (*Eubalaena glacialis*) from 2004 to 2014,” *Scientific Reports*, vol. 7, p. 13460 (2017).

<sup>44</sup> Asaro, M.J., “Update on US Right Whale Mortalities in 2017,” (Nov. 30, 2017),

[https://www.greateratlanticfisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro\\_usstrandings\\_nov2017.pdf](https://www.greateratlanticfisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro_usstrandings_nov2017.pdf).

<sup>45</sup> NOAA Fisheries Interactive DMA Analyses: <https://www.nefsc.noaa.gov/rcb/interactive-monthly-dma-analyses/>

<sup>46</sup> Pendleton, D.E. et al., “Regional-scale mean copepod concentration indicates relative abundance of North Atlantic right whales,” *Marine Ecology Progress Series*, vol. 378, pp. 211-225 (2009); NOAA Northeast Fisheries Science Center, “Ecology of the Northeast US Continental Shelf – Zooplankton,” <https://www.nefsc.noaa.gov/ecosys/ecosystem-ecology/zooplankton.html>

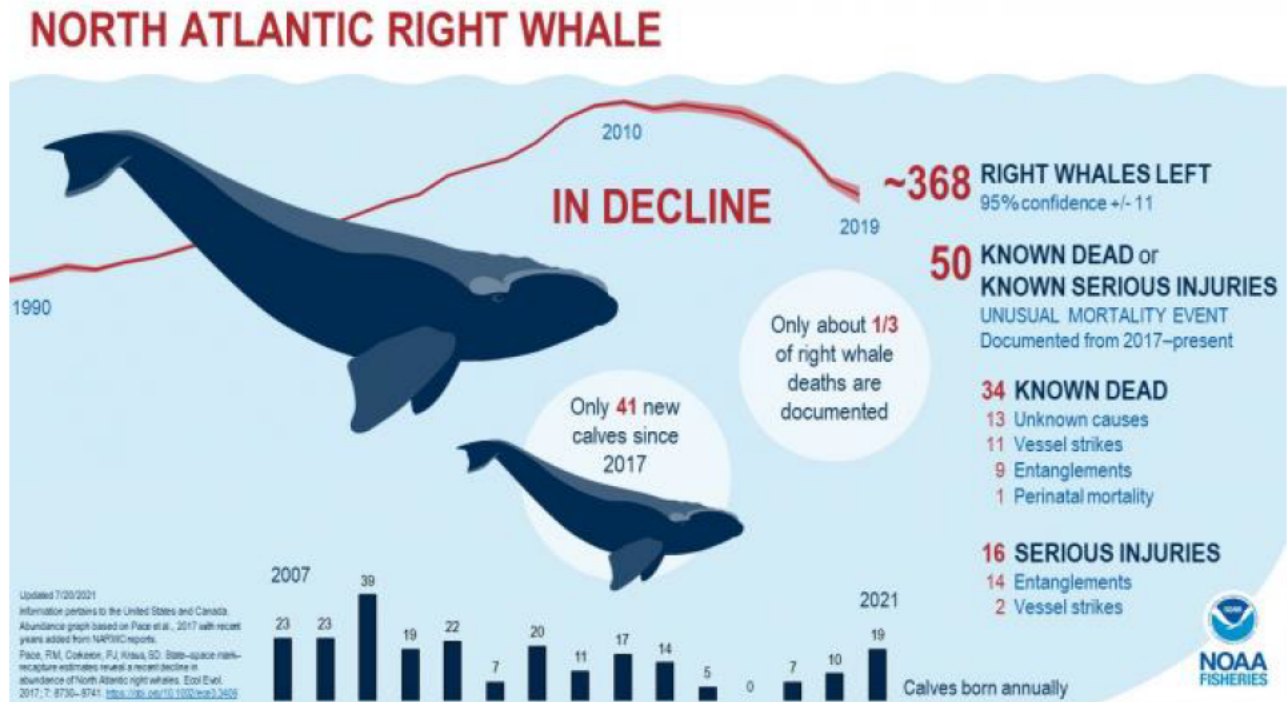
<sup>47</sup> See, e.g., North Atlantic Right Whale Consortium, 2019 Annual Report Card at Table 8 (demonstrating that North Atlantic right whales are found south of Nantucket and Martha’s Vineyard year-round),

<https://www.narwc.org/uploads/1/1/6/6/116623219/2019reportfinal.pdf>

<sup>48</sup> National Marine Fisheries Service, *Voluntary Vessel Speed Restriction Zone in Effect South of Nantucket to Protect Right Whales* (Jan. 28, 2019), <https://www.fisheries.noaa.gov/feature-story/voluntary-vessel-speed-restriction-zone-effect-south-nantucket-protect-right-whales>; National Marine Fisheries Service, *Extended Through March 17: Voluntary Vessel Speed Restriction Zone in Effect South of Nantucket to Protect Right Whales* (Mar. 5, 2019),

<https://www.fisheries.noaa.gov/feature-story/extended-through-march-17-voluntary-vessel-speed-restriction-zone-effect-south>; National Marine Fisheries Service, *Extended Through April 13: Voluntary Vessel Speed Restriction Zone in Effect South of Nantucket to Protect Right Whales* (Mar. 29, 2019), <https://www.fisheries.noaa.gov/feature-story/extended-through-april-13-voluntary-vessel-speed-restriction-zone-effect-south>; National Marine Fisheries Service, *North Atlantic Right Whales and Dangers of Vessel Strikes and Entanglement* (Feb. 19, 2020) (Ecologist, Dr. Caroline Good, who works on the Large Whale Team for NOAA Fisheries stated: “The whales are now using the waters south of Nantucket and Martha’s Vineyard as a foraging habitat.”), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whales-and-dangers-vessel-strikes-and-entanglement>

females of reproductive age are also present in the area in February and March, with April appearing particularly important for mothers and calves.<sup>49</sup> Several scientific data sources demonstrate that North Atlantic right whales use these waters year-round.<sup>50</sup>



Source: National Marine Fisheries Service<sup>51</sup>

In 2017, the Fisheries Service declared an Unusual Mortality Event (UME) for the North Atlantic right whale, due to the number of deaths.<sup>52</sup> The issuance of a UME demands an immediate response and requires additional federal resources to be devoted to determining and mitigating the source of excessive mortality.<sup>53</sup> Despite the UME, as of August 18, 2021, a total of 50 whales have been found dead or seriously injured since 2017 (34 known dead / 16 serious injuries). And, this is not the full

<sup>49</sup> Dr. C. Good interview (Oct. 24, 2017).

<sup>50</sup> Kraus, S.D. et al., “Northeast large pelagic survey collaborative aerial and acoustic surveys for large whales and sea turtles. Final Report,” OCS Study, BOEM 2016-056, p. 118 (2016); Davis, G.E. et al., *Long-term passive acoustic recordings track the changing distribution of North Atlantic right whales (Eubalaena glacialis) from 2004 to 2014*, Scientific Reports, vol. 7, p. 13460 (2017); National Marine Fisheries Service Interactive DMA Analyses: <https://www.nefsc.noaa.gov/rcb/interactive-monthly-dma-analyses/>

<sup>51</sup> National Marine Fisheries Service, *Species Directory – North Atlantic Right Whale*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale#overview> (last visited Aug. 4, 2021).

<sup>52</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021).

<sup>53</sup> 16 U.S.C. § 1421h; 16 U.S.C. § 1421c.

extent of deaths as only about a third of NARW deaths are documented.<sup>54</sup> These NARW mortalities and serious injuries are most often attributed to fishing gear entanglements or vessel strikes.<sup>55</sup> Even so, since the Fisheries Service declared the UME in 2017, no changes to the regulatory regimes for fishing or vessel traffic have been implemented.

Recent studies as well as the U.S. Government’s own projections suggest that, without aggressive and immediate recovery actions, NARWs could become extinct in the near future.<sup>56</sup> Immediate government action is needed to address human-caused threats to the species, especially fishing gear entanglement and vessel strikes; other threats and stressors to the species from climate change, ocean noise, and offshore energy development should also be mitigated.

## II. Fishing Gear Entanglements

One of the two leading causes of injury and death for North Atlantic right whales is entanglements in fixed fishing gear such as lobster and crab traps.<sup>57</sup>



Source: National Marine Fisheries Service

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<sup>54</sup> Richard M. Pace III et al., *Cryptic Mortality of North Atlantic right whales*, Conservation Science and Practice (Feb. 2021), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346>

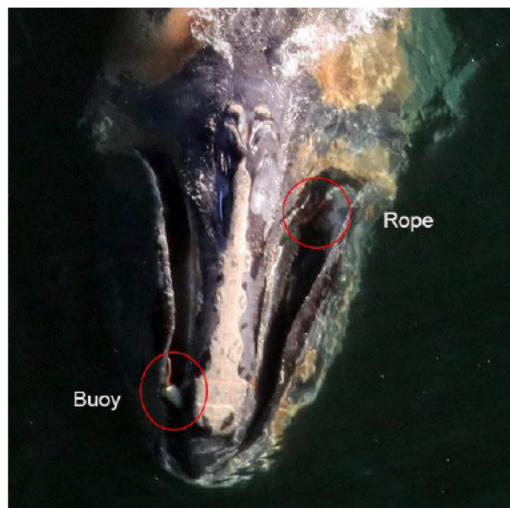
<sup>55</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021).

<sup>56</sup> National Marine Fisheries Service, *Species in the Spotlight Priority Actions 2021-2025: North Atlantic Right Whale 1*, (March 2021), [https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021\\_NARightWhale-FINAL%20508.pdf](https://media.fisheries.noaa.gov/2021-04/SIS%20Action%20Plan%202021_NARightWhale-FINAL%20508.pdf) (listing NARWs as one of nine species that are a recovery priority due to declining populations, habitat destruction, and/or conflicts with human activities such that extinction is almost certain in the immediate future); see also Erin L. Meyer-Gutbrod, et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, *Oceanography* Vol. 31(2): 19-23 (2018); DOI: <https://doi.org/10.5670/oceanog.2018.209>.

<sup>57</sup> Pettis, HM, Pace RM III, Hamilton, PK. 2018. *North Atlantic Right Whale Consortium 2018 Annual Report Card. Report to the North Atlantic Right Whale Consortium.* [www.narwc.org](http://www.narwc.org); Pettis HM, Pace RM, Schick RS, Hamilton PK. 2017. *North Atlantic Right Whale Consortium 2017 Annual Report Card.* Boston MA: North Atlantic Right Whale Consortium. Report to the North Atlantic Right Whale Consortium, October 2017, amended 8-18-2018. <https://www.narwc.org/report-cards.html>.

A 2012 study estimated that around 83% of all North Atlantic right whales have been entangled at least once in their lifetime,<sup>58</sup> and recent science has demonstrated that entanglement mortalities have increased from 21% between 1970-2002, to 51% between 2003-2018.<sup>59</sup> However, a 2021 study co-authored by the Fisheries Service’s leading NARW population biologist found that, from 2010 to 2017, only 29% of NARW mortalities were observed; “cryptic [i.e., unobserved] deaths due to entanglements significantly outnumber[] cryptic deaths from vessel collisions or other causes.”<sup>60</sup>

Entanglements make it difficult for the whales to swim and feed, and in some cases can lead to drowning and death.<sup>61</sup> For example, “Dragon,” a female NARW was last spotted off Nantucket Island, Massachusetts in February 2020 with a buoy and rope lodged in her mouth; she did not appear to be feeding and was in a severely weakened condition; fishing gear entanglements are a threat to any NARW, but the threat is of particular concern for reproducing females, each of which is needed to regenerate the species.<sup>62</sup>



Source: National Marine Fisheries Service<sup>63</sup>

<sup>58</sup> Knowlton et al., *Monitoring North Atlantic right whale Eubalaena glacialis entanglement rates: a 30 yr retrospective*, Marine Ecology Progress Series, vol. 466, pp. 293-302 (2012).

<sup>59</sup> Sharp, S.M. et. al, *Gross and histopathologic diagnosis from North Atlantic right whale Eubalaena glacialis mortalities between 2003 and 2018* (2018), Diseases of Aquatic Organisms, Vol. 135, pp. 1-31 (2019).

<sup>60</sup> Richard M. Pace III et al., *Cryptic Mortality of North Atlantic right whales*, Conservation Science and Practice (Feb. 2021), <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346>.

<sup>61</sup> National Marine Fisheries Service, *Young Right Whale Likely Died from Entanglement* (Sept. 7, 2018), <https://www.fisheries.noaa.gov/feature-story/young-right-whale-likely-died-entanglement>; Cassoff R, Moore K, McLellan W, et al. (2011) *Lethal entanglement in baleen whales*. Diseases of Aquatic Organisms 96: 175–185. doi: 10.3354/dao02385.

<sup>62</sup> National Marine Fisheries Service, *Emaciated Adult Female North Atlantic Right Whale Spotted Entangled off Nantucket* (Feb. 28, 2020), <https://www.fisheries.noaa.gov/feature-story/emaciated-adult-female-north-atlantic-right-whale-spotted-entangled-nantucket>

<sup>63</sup> National Marine Fisheries Service, *Emaciated Adult Female North Atlantic Right Whale Spotted Entangled off Nantucket* (Feb. 28, 2020), <https://www.fisheries.noaa.gov/feature-story/emaciated-adult-female-north-atlantic-right-whale-spotted-entangled-nantucket>



Even if death is not the result, a recent study shows that the sub-lethal health effects of entanglements can stunt NARW growth; in fact, NARW body lengths have been decreasing since 1981, and arrested growth may lead to reduced reproductive success.<sup>64</sup>

According to the Fisheries Service, the lobster and crab fisheries deploy about 93% of the fixed fishing gear in the waters of the U.S. Northeast where NARWs often transit and/or aggregate for breeding and foraging.<sup>65</sup> The fixed fishing gear used by these fisheries generally involves vertical buoy lines that connect down to lobster or crab traps/pots on the ocean floor, with ground lines connecting multiple traps into a “trawl.” With over 900,000 buoy lines deployed annually in these two U.S. fisheries alone, these vertical lines in the water column present a significant threat of entanglement for NARWs.<sup>66</sup>

Fishing gear lines have been seen wrapped around NARWs’ mouths, fins, tails and bodies, which slows them down, making it difficult to swim, reproduce, and feed, and can kill them.<sup>67</sup> The lines cut into the whales’ flesh, leading to life-threatening infections, and are so strong that they can sever fins and tails and cut into bone.<sup>68</sup>

For at least 25 years, the U.S. Government has recognized fishing gear entanglement as a major threat to NARWs,<sup>69</sup> and, since at least 2017, when it declared the UME, the U.S. Government acknowledged the urgent need to take action to protect NARWs.<sup>70</sup> Despite legal requirements to address the fishing gear entanglement, as of now, five years after the UME was announced, no final federal action has been taken to mitigate fishing gear entanglement or to effectively enforce environmental laws to protect the species. Worse yet, as the table below demonstrates, the U.S. Government’s proposed plan, issued in May 2021, relies on four phases of agency action that will

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<sup>64</sup> Stewart et al., *Decreasing body lengths in North Atlantic right whales*, *Current Biology* (2021); National Marine Fisheries Service, *Critically Endangered North Atlantic Right Whales Getting Smaller, New Research Finds* (June 3, 2021), <https://www.fisheries.noaa.gov/feature-story/critically-endangered-north-atlantic-right-whales-getting-smaller-new-research-finds>

<sup>65</sup> NOAA Fisheries, *Fact Sheet - Proposed “Risk Reduction Rule” to Modify the Atlantic Large Whale Take Reduction Plan* (Dec. 31, 2020), <https://media.fisheries.noaa.gov/2021-01/TRTFactSheetRev011221.pdf?null>.

<sup>66</sup> *Draft EIS* Vol. II at Appendix 5.1, Exhibit 8.

<sup>67</sup> NOAA Fisheries, *Young Right Whale Likely Died from Entanglement*, <https://www.fisheries.noaa.gov/feature-story/young-right-whale-likely-died-entanglement#:~:text=Young%20Right%20Whale%20Likely%20Died%20from%20Entanglement%20September.to%20the%20information%20scientists%20obtained%20from%20the%20necropsy>. (Sept. 7, 2018); Rachel M. Cassoff et al., *Lethal Entanglement in Baleen Whales*, 96 *Diseases of Aquatic Organisms* 175 (2011).

<sup>68</sup> Rachel M. Cassoff et al., *Lethal Entanglement in Baleen Whales*, 96 *Diseases of Aquatic Organisms* 175 (2011); *see also*

<sup>69</sup> National Marine Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western North Atlantic Stock – Stock Assessment* (1995), [https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w\\_508.pdf](https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w_508.pdf); Eugene E. Buck, *CRS Report for Congress – The North Atlantic Right Whale: Federal Management Issues* (Mar. 29, 2001).

<sup>70</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021) (noting the leading category for the cause of death for this UME is ‘human interaction,’ specifically from entanglements and vessel strikes).

not attain the legally required recovery goal of ensuring that no additional NARWs will be entangled<sup>71</sup> until 2030 – an unacceptable further delay of 10 years to protect a critically endangered species, especially when immediate federal action was required by law long ago.<sup>72</sup>

**North Atlantic Right Whale Conservation Framework**<sup>73</sup>

| Phase      | Year      | Conservation Framework Action Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | Annually  | Provide updates, as appropriate, on the implementation of the Framework to the New England and Mid-Atlantic Fishery Management Councils, Atlantic States Marine Fisheries Commission, and ALWTRT.                                                                                                                                                                                                                                                                                                                      |
| 1          | 2021      | NMFS implements the MMPA ALWTRP rulemaking focused on 60% reduction in right whale M/SI incidental to the American lobster and Jonah crab trap/pot fisheries. In federal waters, this action reduces M/SI from entanglement, on average annually, to 2.69. Implementation for certain measures will begin in 2021; others will be phased over time.                                                                                                                                                                    |
| 2          | 2023      | NMFS implements rulemaking to reduce M/SI in federal gillnet and other pot/trap (i.e., other than lobster and Jonah crab fisheries included in Phase 1) fisheries by 60%, reducing M/SI from entanglement, on average annually, to 2.61. As described above, the ALWTRT will convene in 2021 to recommend modifications to the ALWTRP to address risk in the remaining fixed gear fisheries. This phase will consider how any changes to the ALWTRP contribute to achieving the target reduction under this Framework. |
| Evaluation | 2023-2024 | NMFS evaluates any updated or new data on right whale population and threats to assess progress towards achieving the conservation goals of this Framework. At this time, we will also assess measures taken by Canada to address serious injury and mortality in Canadian waters.                                                                                                                                                                                                                                     |

<sup>71</sup> 16 U.S.C. § 1387(f)(2) (requiring that “[t]he immediate goal of a take reduction plan for a strategic stock shall be to reduce, within 6 months of its implementation, the incidental mortality or serious injury of marine mammals incidentally taken in the course of commercial fishing operations to levels less than the potential biological removal level established for that stock under section 1386 of this title.”).

<sup>72</sup> National Marine Fisheries Service, *North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region* 6-7 (May 2021).

<sup>73</sup> Biological Opinion (May 27, 2021) at Appendix A.

| Phase      | Year      | Conservation Framework Action Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3          | 2025      | NMFS implements rulemaking to further reduce M/SI by 60% in all federal fixed gear fisheries, reducing M/SI from entanglement, on average annually, to 1.04.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Evaluation | 2025-2026 | NMFS evaluates measures implemented in the 2025 action as well as new data on the right whale population and threats to assess progress towards achieving the conservation goals of this Framework. Based on the results of this evaluation, NMFS will determine the degree to which additional measures are needed to ensure the fisheries are not appreciably reducing the likelihood of survival and recovery. As described above, if actions outside the federal fisheries reduce risk to right whales by 0.5 M/SI on average annually (1 whale every two years), the M/SI reduction requirement in Phase 4 will be reduced from 87 to 39 percent. If M/SI from other sources is reduced by greater than one M/SI on average annually, we will evaluate whether further action in the federal fisheries is needed. |
| 4          | 2030      | In accordance with the goals identified in the 2025-2026 evaluation, NMFS implements regulations to further reduce M/SI (up to 87%) in fixed gear fisheries. With an 87% reduction, M/SI will be reduced to 0.136.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Source: National Marine Fisheries Service<sup>74</sup>

### III. Vessel Strikes

Vessel strikes are the other top cause of mortality and serious injury for NARWs, and substantial mitigation measures and enforcement actions are necessary.<sup>75</sup> NARW calving grounds, foraging areas, and migrations overlap with key shipping channels and ports across the East Coast of the United States and Canada.<sup>76</sup> North Atlantic right whale habitats overlap with areas close to major

<sup>74</sup> Biological Opinion (May 27, 2021) at Appendix A.

<sup>75</sup> Report: Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales, Oceana (July 21, 2021) available at [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

<sup>76</sup> Baumgartner, M.F., and Mate, B.R. (2003) *Summertime foraging ecology of North Atlantic right whales*. In: Marine Ecology. Available: [https://www.researchgate.net/publication/250218033\\_Summertime\\_foraging\\_ecology\\_of\\_North\\_Atlantic\\_right\\_whales](https://www.researchgate.net/publication/250218033_Summertime_foraging_ecology_of_North_Atlantic_right_whales); see also James H.W. Hain et al., *Swim Speed, Behavior, and Movement of North Atlantic Right Whales (Eubalaena glacialis) in Coastal Waters of Northeastern Florida, USA*, PLoS ONE 8(1): e54340. Doi: 10.1371/journal.pone.0054340 (Jan. 10, 2013).

ports along the Atlantic seaboard. The whales often swim and aggregate in or near shipping lanes and entrances to harbors and ports, making them vulnerable to vessel strikes.<sup>77</sup>

If a NARW is not immediately killed, a vessel strike can cause severe trauma, including broken bones, lacerations from propellers, and internal damage from blunt force trauma. The image below shows propeller scars along the back of a NARW.



Source: National Marine Fisheries Service<sup>78</sup>

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<sup>77</sup> National Marine Fisheries Service, *Species Directory - North Atlantic Right Whale - Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale>

<sup>78</sup> National Marine Fisheries Service, *Species Directory - North Atlantic Right Whale – Overview*, <https://www.fisheries.noaa.gov/species/north-atlantic-right-whale>

Worse yet, vessel strikes disproportionately affect NARW mothers, calves, and juveniles.<sup>79</sup> Research has shown that pregnant whales and mothers with calves may be more susceptible to ship strikes because they spend more time resting and nursing at the surface.<sup>80</sup>

Between 1991 and 2018, a total of 57 confirmed vessel strikes occurred or were detected in U.S. waters – 14 mortalities, 6 serious injuries, and 37 non-serious injuries.<sup>81</sup> These NARW deaths and injuries are due to the fact that the mandatory and voluntary speed zones created under the 2008 Vessel Strike Rule are neither closely followed nor effectively enforced.

Under the 2008 Vessel Speed Rule, ten distinct areas from Massachusetts to Florida are designated as Seasonal Management Areas (SMAs) – mandatory speed zones where all vessels 65 feet and longer are required to reduce speeds to 10 knots or less. These SMAs were chosen because they represented important feeding, breeding, calving, and migratory habitats for NARWs *as of 2008*. The 2008 Vessel Speed Rule also provides legal authority to establish voluntary speed zones, known as Dynamic Management Areas (DMAs), when three or more NARWs are sighted within an area. Once created, the DMA extends 15 nautical miles around the area of NARW detection and lasts 15 days from the date of sighting and can be extended if the whales remains in the area. The DMAs establish a voluntary speed zone where vessels of 65 feet and longer are asked to slow down 10 knots or less. The map below shows the ten SMAs and several of the DMAs created in recent years.

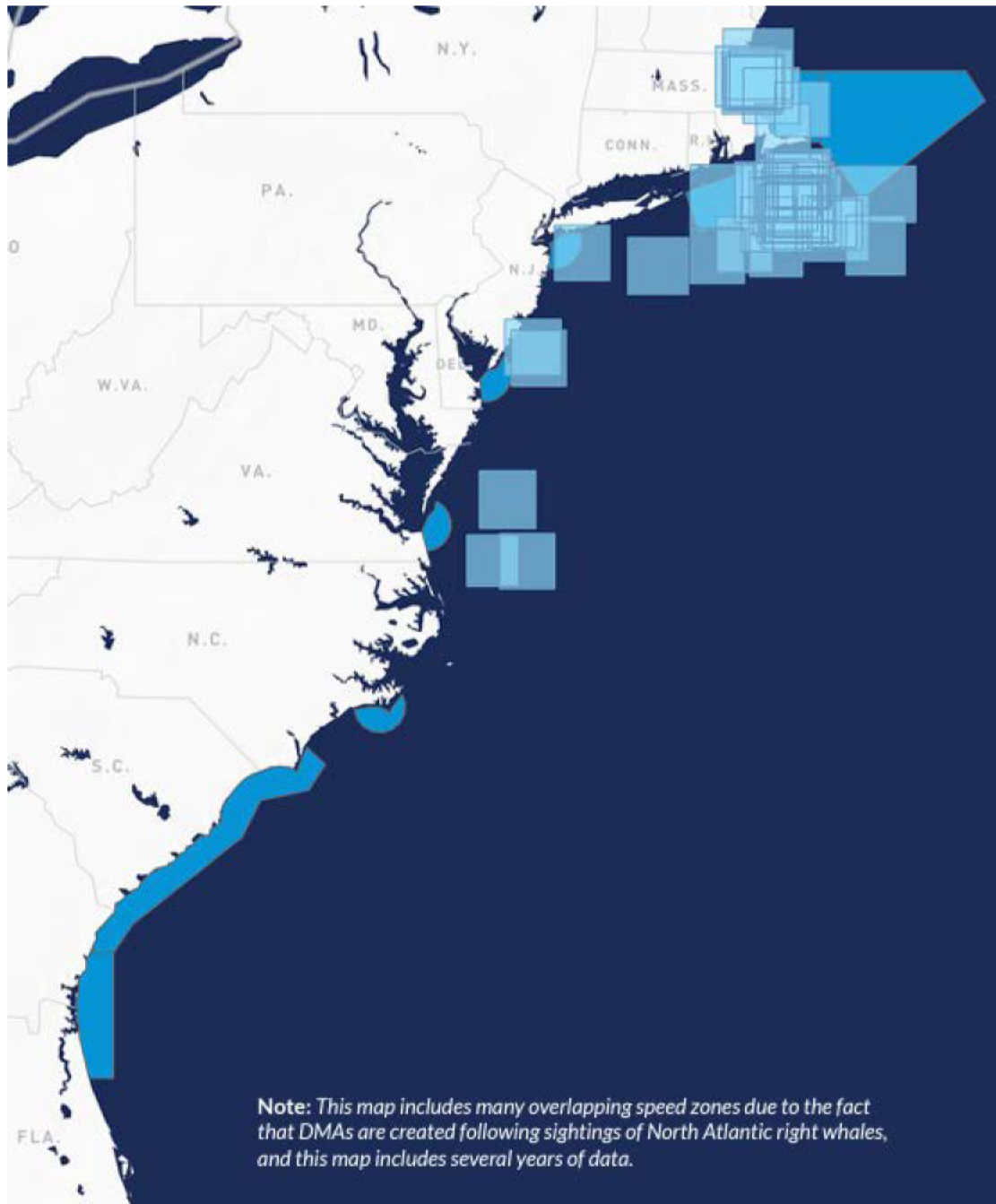
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<sup>79</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales, 73 Fed. Reg. 60,173, 60,174 (Oct. 10, 2008) (codified at 50 C.F.R. § 224.105) [hereinafter “2008 Vessel Speed Rule”]. While the exact reason is unknown, the Fisheries Service suspects “one factor may be that pregnant females and females with nursing calves may spend more time at the surface where they are vulnerable to being struck.” *Id.*

<sup>80</sup> Baumgartner, M.F., and Mate, B.R. (2003) *Summertime foraging ecology of North Atlantic right whales*. In: Marine Ecology. Available: [https://www.researchgate.net/publication/250218033\\_Summertime\\_foraging\\_ecology\\_of\\_North\\_Atlantic\\_right\\_whales](https://www.researchgate.net/publication/250218033_Summertime_foraging_ecology_of_North_Atlantic_right_whales); see also James H.W. Hain et al., *Swim Speed, Behavior, and Movement of North Atlantic Right Whales (Eubalaena glacialis) in Coastal Waters of Northeastern Florida, USA*, PLoS ONE 8(1): e54340. Doi: 10.1371/journal.pone.0054340 (Jan. 10, 2013).

<sup>81</sup> National Marine Fisheries Service, Office of Protected Resources, *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment* (June 2020; not publicly released until January 2021), [https://media.fisheries.noaa.gov/2021-01/FINAL\\_NARW\\_Vessel\\_Speed\\_Rule\\_Report\\_Jun\\_2020.pdf?null](https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null).

**Mandatory (SMA) and Voluntary (DMA) Speed Zones to Protect NARWs**



Source: Oceana<sup>82</sup>

<sup>82</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

Oceana's July 2021 vessel speed report confirms that the vast majority of vessels are exceeding the 10-knot speed in both the mandatory and voluntary speed reduction zones. Analyzing data from 2017-2020, Oceana found that vessels violated speed restrictions in all mandatory, Seasonal Management Areas (SMAs) at a rate ranging from 32.7% to 89.6%. Vessels of all types and in every SMA were recorded traveling above the mandatory 10-knot speed limit. The most common violators were massive cargo vessels, with vessels averaging 87.5% non-compliance in the SMA from Wilmington, North Carolina to Brunswick Georgia.<sup>83</sup> In the voluntary, Dynamic Management Areas (DMAs), more than 50% of transiting vessels exceeded the suggested 10-knot speed limit. Oceana's report indicates that there is an immediate need for mandatory speed restrictions, effective enforcement and speeding deterrence, reform of the current SMA and DMA programs, and additional coordination to ensure speed zones cover the shifting ranges of NARWs.<sup>84</sup>

In 2020, one calf was presumed dead after being observed off the coast of Georgia with severe head and mouth injuries from a probable vessel strike, while another was found dead off the New Jersey coast bearing evidence of two separate vessel strikes.<sup>85</sup> Yet again in February 2021, another calf was found dead on the coast of St. Augustine, Florida with severe propeller wounds and fractured ribs and skull, while his mother was observed with serious injuries indicative of vessel strike.<sup>86</sup> Florida Fish and Wildlife Conservation Commission investigators determined that the whales had been struck by a 54-foot recreational fishing boat that had been traveling at 21 knots.<sup>87</sup> Vessels less than 65 feet currently are not required to adhere to the speed restrictions, but changes to the 2008 Vessel Speed Rule, which are long overdue, must address vessel strike risk from smaller vessels.<sup>88</sup> While the deaths of these calves are devastating to a critically endangered population already experiencing a low calving rate, vessel strikes to any of the remaining reproductive females are even worse.

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<sup>83</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

<sup>84</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

<sup>85</sup> *North Atlantic Right Whale Calf Injured by Vessel Strike*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-injured-vessel-strike> (Jan. 13, 2020); *Dead North Atlantic Right Whale Sighted off New Jersey*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., <https://www.fisheries.noaa.gov/feature-story/dead-north-atlantic-right-whale-sighted-new-jersey> (last updated June 29, 2020).

<sup>86</sup> *North Atlantic Right Whale Calf Stranded Dead in Florida*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., (Feb. 14, 2021), <https://www.fisheries.noaa.gov/feature-story/north-atlantic-right-whale-calf-stranded-dead-florida>.

<sup>87</sup> Brie Isom, *FWC Documents Shed New Light on Boat Strike that Killed Right Whale Calf*, (March 12, 2021), <https://www.news4jax.com/news/local/2021/03/12/fwc-documents-shed-new-light-on-boat-strike-that-killed-right-whale-calf/?vfz=medium%3Dsharebar>.

<sup>88</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

Similar to fishing gear entanglement, for at least 25 years, the U.S. Government has recognized vessel strikes as a significant threat to NARWs.<sup>89</sup> And, since 2017, the U.S. Government has also acknowledged the significant threat vessel strikes pose to NARWs and the need for action;<sup>90</sup> however, no federal action has been taken since that time to adequately address this threat as legally required under environmental law – whether by implementing viable measures to protect the species or by effectively enforce existing vessel speed restrictions.

In January 2021, the U.S. Government released a report evaluating the 2008 Vessel Speed Rule to reduce vessel strike mortalities and serious injuries; in that report, the government admitted that speed restrictions have not been adequately heeded by vessels transiting mandatory and voluntary speed restriction zones,<sup>91</sup> nor has the government effectively implemented or enforced the speed limits, as vessel compliance rates are well below what is needed to protect NARWs.<sup>92</sup> The U.S. Government also acknowledged that the speed zones need to be modified to track changes in NARW distribution and vessel traffic patterns and that smaller vessels (less than 65 feet in length), which are not currently covered by the 2008 Vessel Speed Rule, pose a significant threat to NARWs.<sup>93</sup> Despite these admissions and acknowledgements, government representatives have recently stated that there are no plans for regulatory action to reduce the risk of vessel strikes.<sup>94</sup>

#### IV. Additional Threats to North Atlantic Right Whales

##### A. Climate Change

Prompted by climate change, NARWs are demonstrating shifts in species distribution, especially since 2010.<sup>95</sup> These climate-mediated shifts are due, in part, to changing distribution of the whale's

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<sup>89</sup> National Marine Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis): Western North Atlantic Stock – Stock Assessment* (1995), [https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w\\_508.pdf](https://media.fisheries.noaa.gov/dam-migration/ao1995whnr-w_508.pdf); Eugene E. Buck, *CRS Report for Congress – The North Atlantic Right Whale: Federal Management Issues* (Mar. 29, 2001); Eugene E. Buck, *CRS Report for Congress – The North Atlantic Right Whale: Federal Management Issues* (Mar. 29, 2001).

<sup>90</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021) (noting the leading category for the cause of death for this UME is ‘human interaction’, specifically from entanglements and vessel strikes).

<sup>91</sup> National Marine Fisheries Service, Office of Protected Resources, *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment* at 10-14 (June 2020; not publicly released until January 2021), [https://media.fisheries.noaa.gov/2021-01/FINAL\\_NARW\\_Vessel\\_Speed\\_Rule\\_Report\\_Jun\\_2020.pdf?null](https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null) (noting between 63% and 85% compliance with mandatory speed limits in Seasonal Management Areas (SMAs) with cargo and pleasure vessels exhibiting the least compliance at 44% and 31%, respectively); *id.* at 14-17 (finding that only a small portion of vessels are modifying their speed to less than 10 knots to cooperate with Dynamic Management Areas (DMAs) [hereinafter “NARW Vessel Speed Rule Assessment”]).

<sup>92</sup> NARW Vessel Speed Rule Assessment at 10-14; *id.* at 14-17.

<sup>93</sup> NARW Vessel Speed Rule Assessment at 36-37.

<sup>94</sup> Brian Dabbs, *Offshore-wind plans spark conservation pushback*, *National Journal* (April 12, 2021) (on file with Oceana) (noting that NOAA spokeswoman, Kate Goggin, stated: “Reducing the risk of vessel strikes to right whales remains an agency priority, but we have no set timeline for regulatory action at this time.”).

<sup>95</sup> Erin M. Oleson et al., *NOAA Technical Memorandum NMFS-OPR-64 - North Atlantic Right Whale Monitoring and Surveillance: Report and Recommendations of the National Marine Fisheries Service’s Expert Working Group* (June 2020).



primary food source, the calanoid copepod (*Calanus finmarchicus*).<sup>96</sup> Since 2010, due to changes in water temperature, prey distribution is moving, and NARWs have matched this shift.<sup>97</sup> As NARWs move into new habitats in search of prey, current U.S. Government measures do not provide adequate protection and effective conservation and recovery of NARWs; additional government protections from human-caused threats and stressors are needed immediately.<sup>98</sup>

## B. Ocean Noise

Ocean noise, such as from vessels and energy development, increases stress in NARWs.<sup>99</sup> For example, among the most harmful noises in the ocean environment is seismic exploration for oil and gas; a seismic airgun array can create noise around 260 decibels, louder than all other human-caused ocean noise except military-grade explosives.<sup>100</sup> For NARWs, seismic airgun blasting can drown out the calls that keep mothers and calves together, increasing the likelihood that mother-calf pairs will be separated.<sup>101</sup> Premature separation can kill a calf. Noise also prevents whales from communicating with other adults, including potential mates.<sup>102</sup> Background noise levels as low as 106 decibels underwater hinder the whale's ability to effectively maintain contact.<sup>103</sup> Such stress can increase vulnerability to disease, increase mortality, and compromise reproduction across a wide variety of mammals.<sup>104</sup> Given their small population, NARWs cannot tolerate increased stress levels.

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<sup>96</sup> Nicholas R. Record et al., *Rapid Climate-Driven Circulation of Changes Threaten Conservation of Endangered North Atlantic Right Whales*, *Oceanography* (June 2019); National Marine Fisheries Service, *Endangered Species Action Section 7 Consultation on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel/Squid/Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder/Scup/Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fishery Management Council's Omnibus Essential Fish Habitat Amendment 2* at Section 6.2.1 (May 27, 2021) [hereinafter "Final Batched BiOp"].

<sup>97</sup> Davis et al. 2020. *Exploring movement patterns and changing distributions of baleen whales in the western North Atlantic using a decade of passive acoustic data*. *Global Change Biology* 26(9): 4812-4840.

<sup>98</sup> Erin L. Meyer-Gutbrod et al., *Marine Species Range Shifts Necessitate Advanced Policy Planning: The Case of the North Atlantic Right Whale*, *Oceanography* 31(2): 19-23 (June 2018); DOI: <https://doi.org/10.5670/oceanog.2018.209>; Nicholas R. Record et al., *Rapid Climate-Driven Circulation of Changes Threaten Conservation of Endangered North Atlantic Right Whales*, *Oceanography* (June 2019), [https://tos.org/oceanography/assets/docs/32-2\\_record.pdf](https://tos.org/oceanography/assets/docs/32-2_record.pdf)

<sup>99</sup> Rolland RM, Parks SE, Hunt KE, et al. (2012) *Evidence that ship noise increases stress in right whales*. *Proceedings of the Royal Society B: Biological Sciences* 279: 2363–2368. doi: 10.1098/rspb.2011.2429.

<sup>100</sup> Hildebrand J (2009) *Anthropogenic and natural sources of ambient noise in the ocean*. *Marine Ecology Progress Series* 395: 5–20. doi: 10.3354/meps08353.

<sup>101</sup> Tennessen J and Parks S (2016) *Acoustic propagation modeling indicates vocal compensation in noise improves communication range for North Atlantic right whales*. *Endangered Species Research* 30: 225–237. doi: 10.3354/esr00738.

<sup>102</sup> Hatch LT, Clark CW, Van Parijs SM, Frankel AS and Ponirakis DW (2012) *Quantifying Loss of Acoustic Communication Space for Right Whales in and around a U.S. National Marine Sanctuary*. *Conservation Biology* 26: 983–994. doi: 10.1111/j.1523-1739.2012.01908.x; Nowacek DP, Clark CW, Mann D, et al. (2015) *Marine seismic surveys and ocean noise: time for coordinated and prudent planning*. *Frontiers in Ecology and the Environment* 13: 378–386.

<sup>103</sup> Tennessen J and Parks S (2016) *Acoustic propagation modeling indicates vocal compensation in noise improves communication range for North Atlantic right whales*. *Endangered Species Research* 30: 225–237. doi: 10.3354/esr00738.

<sup>104</sup> Kight CR and Swaddle JP (2011) *How and why environmental noise impacts animals: an integrative, mechanistic review*. *Ecology Letters* 14: 1052–1061. doi: 10.1111/j.1461-0248.2011.01664.x; Romero ML and Butler LK (2007)

### C. Offshore Energy Development

Under the Trump Administration, the U.S. Government not only permitted seismic airgun blasting, which Oceana and our coalition partners successfully stopped, but also proposed offshore oil and gas leasing in the Atlantic in the five-year leasing plan. Actions in the pursuit of offshore energy development threaten NARWs and should not be considered without a clear understanding that the species will not be harmed.

## **LEGAL BACKGROUND**

### I. **United States-Mexico-Canada Agreement (USMCA)**

On July 1, 2020 the USMCA took effect, including provisions allowing for submissions related to failures to effectively comply with, implement, or enforce environmental laws. Under Article 24.27 of the USMCA, “[a]ny person of a Party may file a submission asserting that a Party is failing to effectively enforce its environmental laws.” This process is intended to ensure that the Parties are living up to their commitment to each other to effectively enforce their environmental laws, which is an integral part of their overall commitment to sustainable trade under the USMCA.

“Environmental law” is defined in the USMCA as “a statute or regulation of a Party, . . . , the primary purpose of which is the protection of the environment, . . . , through: . . . the protection or conservation of wild flora or fauna, including endangered species, their habitat, and specifically protected natural areas.”<sup>105</sup> For the United States, “statute or regulation” is defined as “an Act of Congress or regulation promulgated pursuant to an Act of Congress that is enforceable by action of the central level of government.”<sup>106</sup> Thus, national but not subnational laws are relevant for purposes of a Submission on Enforcement Matters under the USMCA. We note for purposes of the SEM process that the U.S. Environmental Protection Agency serves as the point of contact for the United States and sits on the Council of the CEC.

In addition to the general obligation to comply with, implement, and enforce environmental law, Article 24.19 of the USMCA, entitled “Conservation of Marine Species,” states that “[e]ach Party *shall* promote the long-term conservation of . . . marine mammals through implementation and effective enforcement of conservation and management measures.” These measures *must* include “measures to avoid, mitigate, or reduce bycatch of non-target species in fisheries, including appropriate measures pertaining to the use of bycatch mitigation devices, modified gear, or other techniques to reduce the impact of fishing operations on these species.”<sup>107</sup>

Various federal agencies and sub-agencies and offices of the U.S. Government are responsible for enforcing several national environmental laws to protect NARWs, including the Endangered Species Act, the Marine Mammal Protection Act, the Coast Guard Authorization Act, the National

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*Endocrinology of Stress*. International Journal of Comparative Psychology 20: 89–95,  
<https://escholarship.org/content/qt87d2k2xz/qt87d2k2xz.pdf>

<sup>105</sup> USMCA, art. 24.1 (Definitions) – “environmental law.”

<sup>106</sup> USMCA, art. 24.1 (Definitions) – “environmental law.”

<sup>107</sup> USMCA, art. 24.19(c).

Environmental Policy Act, and the Outer Continental Shelf Lands Act as well as regulations either already promulgated or that must be promulgated under each statute. Relevant provisions of the statutes and regulations are detailed below.

## **II. Endangered Species Act (ESA)**

The Endangered Species Act was enacted in 1973 to “halt and reverse the trend toward species extinction, whatever the cost.”<sup>108</sup> The statute declares it “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of [this] purpose.”<sup>109</sup> To meet this goal, Section 9 of the ESA prohibits the “take” of all endangered species, including NARWs, unless specifically authorized.<sup>110</sup> “Take” is defined under the ESA as “to harass, harm, pursue, hunt, shot, wound, kill, trap, capture or collect” a protected species.<sup>111</sup> Exceptions to the ESA prohibition on “take” are only allowed if statutory requirements are met, including via the Section 7 consultation process.

### **A. ESA Section 7 Consultations and Biological Opinion (BiOp)**

Section 7 of the ESA requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency, including the authorization of fisheries, vessel traffic route changes, and offshore energy development, is not likely to jeopardize the continued existence of ESA-listed species or destroy or adversely modify critical habitat.<sup>112</sup> ESA Section 7 consultation ends in the publication of a Biological Opinion (BiOp) that not only includes a determination of whether the activity will jeopardize the continued existence of the species but also identifies measures to mitigate the effects of the activity on the species.<sup>113</sup>

#### **1. Best Scientific and Commercial Data Available**

The Fisheries Service is required to use “the best scientific and commercial data available” in analyzing impacts and formulating the BiOp.<sup>114</sup> For example, a BiOp must rely on the best available scientific data on the status of the species and analyze how the status of the species would be affected by the proposed action.<sup>115</sup>

#### **2. Jeopardy Determination**

“Jeopardize” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild

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<sup>108</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>109</sup> 16 U.S.C. § 1531(c)(1).

<sup>110</sup> 16 U.S.C. § 1538(a)(1)(B).

<sup>111</sup> 16 U.S.C. § 1532(19).

<sup>112</sup> 16 U.S.C. § 1536(a)(2).

<sup>113</sup> *Id.* § 1536(c).

<sup>114</sup> 50 C.F.R. § 402.14(g)(8).

<sup>115</sup> 50 C.F.R. § 402.14(g)(8), (h)(2).

by reducing the reproduction, numbers, or distribution of that species.”<sup>116</sup> When developing its jeopardy determination, “the consulting agency evaluates the current status of the listed species or critical habitat, the effects of the action, and cumulative effects.”<sup>117</sup> If an agency action is expected to jeopardize the species, the BiOp will include non-discretionary Reasonable and Prudent Alternatives (RPAs) and a list of Terms and Conditions (T&Cs) for the fishery.<sup>118</sup> If the agency action is determined not to jeopardize the species, the BiOp will include more flexible Reasonable and Prudent Measures (RPMs) and a list of T&Cs for the fishery.<sup>119</sup>

### 3. Incidental Take Statement (ITS)

Importantly, the BiOp must also include an Incidental Take Statement (ITS) that authorizes and specifies the level of acceptable take for the proposed action that will not trigger future consultation.<sup>120</sup> The ITS has two purposes. First, it provides a safe harbor for a specified level of incidental take.<sup>121</sup> For example, a fishery authorized subject to an ITS may incidentally (but not intentionally) take endangered species, which is otherwise illegal.<sup>122</sup> If the fishery exceeds the take specified in the ITS, however, the safe harbor no longer applies, and the fishery and its participants are liable for violating the ESA.<sup>123</sup> Any person who knowingly “takes,” that is, causes lethal or sub-lethal harm to, an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment (civil fines of up to \$54,157 per violation<sup>124</sup> and criminal penalties of up to \$100,000 and imprisonment for up to a year).<sup>125</sup> Second, the ITS provides a trigger.<sup>126</sup> The BiOp and ITS include a requirement that the Fisheries Service must effectively monitor takes against the trigger specified in the ITS.<sup>127</sup> If the authorized action exceeds the trigger, i.e., the level of “take” specified in the ITS, the Fisheries Service must immediately reinitiate ESA Section 7 consultation to reevaluate impacts to ESA-listed species.<sup>128</sup> For ESA-listed marine mammals, the ITS must include a discussion of measures necessary to comply with the MMPA, which, as discussed below, imposes additional conditions on the Fisheries Service’s ability to authorize the take of endangered marine mammals.

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<sup>116</sup> 50 C.F.R. § 402.02; see also *Defenders of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1101 (E.D. Wash. 2006).

<sup>117</sup> *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 481 F.3d 1224, 1230 (9th Cir. 2007) (citing 50 C.F.R. § 402.14(g)(2)–(3)) (internal quotations omitted).

<sup>118</sup> 16 U.S.C. § 1536(b)(3)(A).

<sup>119</sup> *Id.* § 1536(b)(4).

<sup>120</sup> 50 C.F.R. § 402.14(i).

<sup>121</sup> See *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 909 (9th Cir. 2012).

<sup>122</sup> *Id.*

<sup>123</sup> 16 U.S.C. § 1540(a), (b); see also *Bennett v. Spear*, 520 U.S. 154, 170 (1997).

<sup>124</sup> 15 C.F.R. § 6.3 (Jan. 15, 2021) (adjusting ESA civil penalties for inflation in 2021 such that the maximum civil penalty for each violation is \$54,157).

<sup>125</sup> 16 U.S.C. § 1540(a), (b).

<sup>126</sup> *Ctr. for Biological Diversity*, 695 F.3d at 909.

<sup>127</sup> 50 C.F.R. § 402.14(i).

<sup>128</sup> *Id.*

**B. ESA Section 10: Requiring Incidental Take Permits for State Fisheries that Interact with Endangered Species**

ESA Section 10 includes exceptions to the prohibition on “take.” Under ESA Section 10, the Fisheries Service can issue a “take” permit for scientific purposes or if the taking is incidental to the carrying out of a lawful activity. In order to receive a scientific or incidental take permit, the applicant must submit a conservation plan, referred to as a habitat conservation plan, that details the anticipated impact of the activity on the species and affected habitat, steps that would be taken to monitor, minimize, and mitigate the impacts, alternative actions considered and reasons for not taking those actions, and a list of sources of data used in preparing the plan.

The Fisheries Service has promulgated regulations noting the criteria to be used when determining whether to issue an incidental take permit.<sup>129</sup> The Fisheries Service’s regulations state that the agency will consider five factors:

- (1) the status of the affected species or stocks,
- (2) the potential severity of direct, indirect, and cumulative impacts on the species or stocks and habitat,
- (3) the availability of effective monitoring techniques,
- (4) the use of the best available technology for minimizing and mitigating impacts, and
- (5) the views of the public, scientists, and other interested parties knowledgeable of the species or stocks.<sup>130</sup>

Additionally, the Fisheries Service must find that the taking will be incidental, that the applicant will monitor, minimize, and mitigate the impacts of such a taking, the taking will not appreciably reduce the likelihood of survival and recovery of the species, the applicant has amended the conservation plan to include measures the Fisheries Service deems necessary or appropriate, and there are adequate assurances that the conservation plan will be funded and implemented.<sup>131</sup> Permits can extend for a duration such that adequate assurances can be made to commit necessary funding to the activities authorized, including conservation activities.<sup>132</sup>

**C. ESA Section 11: Providing Fisheries Service with Broad Authority to Promulgate Regulations to Enforce the ESA**

ESA Section 11 gives the Fisheries Service—as well as the Secretary of the Treasury and the Secretary of the Department of Homeland Security, in which the U.S. Coast Guard is operating—broad authority to promulgate any regulation “as may be appropriate” to enforce the statute.<sup>133</sup> For example, this authority can be and has been used to require mandatory vessel speed reductions.<sup>134</sup>

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<sup>129</sup> 50 C.F.R. §222.307.

<sup>130</sup> 50 C.F.R. § 222.307(c)(1).

<sup>131</sup> 50 C.F.R. § 222.307(c)(2).

<sup>132</sup> 50 C.F.R. § 222.307(e).

<sup>133</sup> *Id.* § 1540(f).

<sup>134</sup> 2008 Vessel Strike Rule, 73 Fed. Reg. at 60,182 (“NOAA is issuing these regulations pursuant to its rulemaking authority under MMPA section 112(a) (16 U.S.C. 1382(a)), and ESA section 11(f) (16 U.S.C. 1540(f)).”).

#### **D. Emergency Action Under the ESA**

Under the Endangered Species Act, the Fisheries Service is given authority to take emergency action when there is an “emergency posing a significant risk to the well-being of any [endangered] species of fish or wildlife or plants.”<sup>135</sup> In such instances, the agency can bypass standard rulemaking procedures and issue regulation to remedy the emergency; the regulations can remain in effect for up to 240 days.<sup>136</sup>

### **III. Marine Mammal Protection Act (MMPA)**

The Marine Mammal Protection Act (MMPA) was enacted in 1972 with the goal of protecting and promoting the growth of marine mammal populations “to the greatest extent feasible commensurate with sound policies of resource management” in order to “maintain the health and stability of the marine ecosystem.”<sup>137</sup> The MMPA was passed to prevent marine mammals from diminishing beyond the point at which they cease to be a significant functioning element in their ecosystem and from falling below their optimum sustainable population.<sup>138</sup> Since 1972, the MMPA has afforded special protection to marine mammal species from a wide range of threats. To protect marine mammals, such as NARWs, from human activities, the MMPA establishes a moratorium on the “take” of marine mammals.<sup>139</sup> The MMPA defines “take” as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>140</sup> In limited circumstances, the Fisheries Service,<sup>141</sup> may grant exceptions to the take moratorium, such as for the incidental, but not intentional, taking of marine mammals for certain activities, which is done via an incidental take authorization.<sup>142</sup>

At the heart of the MMPA’s science-driven approach to conservation, management and recovery of marine mammals are the goals of maintaining the optimum sustainable population and ecosystem function of marine mammal stocks, restoring depleted stocks to their optimum sustainable population levels, and reducing mortality and serious injury (bycatch) of marine mammals incidental to commercial fishing operations to insignificant levels. To achieve these overarching goals, the MMPA prohibits taking of marine mammals, with certain exceptions, including for commercial

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<sup>135</sup> 16 U.S.C. § 1533(b)(7).

<sup>136</sup> 16 U.S.C. § 1533(b)(7).

<sup>137</sup> 16 U.S.C. § 1361(6).

<sup>138</sup> 16 U.S.C. § 1361; *see id.* § 1362(9) (defining optimum sustainable population).

<sup>139</sup> 16 U.S.C. §§ 1361(2), 1371.

<sup>140</sup> 16 U.S.C. § 1362(13).

<sup>141</sup> The Fish and Wildlife Service, within the Department of the Interior, is responsible for dugongs, manatees, polar bears, sea otters and walruses. *See* U.S. Fish and Wildlife Service, *Marine Mammals*, <https://www.fws.gov/international/animals/marine-mammals.html> (last visited Feb. 18, 2021).

<sup>142</sup> 16 U.S.C. § 1371(a); Fisheries Service, *Incidental Take Authorizations under the MMPA*, <https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act> (last updated June 24, 2020) (listing oil and gas exploration as an activity for which incidental take authorizations have been issued).

fisheries.<sup>143</sup> Ultimately, the MMPA mandates a Zero Mortality Rate Goal (ZMRG), i.e., marine mammal mortality in commercial fisheries should achieve a zero mortality and serious injury rate to a level approaching zero, by April 2001.<sup>144</sup> The reality is that the ZMRG for marine mammal “take” in commercial fisheries has not been met, indicating the Fisheries Service’s failure to effectively comply with, implement, or enforce this bedrock environmental law.

#### A. North Atlantic Right Whales’ Status Under the MMPA

Potential Biological Removal (PBR) level for a marine mammal species is calculated based on the dynamics of a species or mammal stock to be “(t)he maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.”<sup>145</sup> The 2020 Stock Assessment Report for NARWs calculates PBR at 0.8.<sup>146</sup> A PBR level of 0.8 means that *less than one NARW per year* may be killed or seriously injured by human actions each year for the species to achieve optimum sustainable population.<sup>147</sup>

NARWs are deemed to be a “strategic stock” under the MMPA because the level of direct human-caused mortality exceeds the PBR level, and because NARWs are an endangered species.<sup>148</sup> The Fisheries Service must conduct stock assessments at least annually for “strategic stocks,”<sup>149</sup> and has additional authorities to alleviate impacts on strategic stocks. If the Fisheries Service determines, based on a stock assessment or other significant new information, that “impacts on rookeries, mating grounds, or other areas of similar ecological significance to marine mammals may be causing the decline or impeding the recovery of a strategic stock, the Secretary [of Commerce] may develop and implement conservation or management measures to alleviate those impacts.”<sup>150</sup> In addition to being “strategic stocks,” NARWs are considered to be “depleted” under the MMPA, which also provides certain additional protections.<sup>151</sup> For example, in the context of incidental takes of “depleted” and/or endangered or threatened marine mammals in commercial fisheries, additional authorization is required by the commercial fishing vessel owner.

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<sup>143</sup> 16 U.S.C. § 1371(a), 1371(a)(5)(E).

<sup>144</sup> 16 U.S.C. § 1387(b).

<sup>145</sup> 16 U.S.C. § 1362(20).

<sup>146</sup> 2020 Stock Assessment at 18, Table 1.

<sup>147</sup> 2020 Stock Assessment at 18. Indeed, given the population’s fragility, the PBR has long been less than one animal. *See* 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,176 (“As a result of low population size for [NARWs], lack of observed population growth, and deaths from human activities, NMFS determined in 2000, and each year since, that the [NARW] population’s ‘Potential Biological Removal’ . . . is zero. That is, under the MMPA, the population can sustain no deaths or serious injuries due to human causes if its recovery is to be assured.”). The 2020 Stock Assessment found a median population abundance estimate of 412. *See* 2020 Stock Assessment at 13.

<sup>148</sup> 16 U.S.C. § 1362(19); *see also* 2017 NARW STOCK REPORT at 25.

<sup>149</sup> 16 U.S.C. § 1386(c)(1)(A).

<sup>150</sup> *Id.* § 1382(e).

<sup>151</sup> *Id.* §§ 1362(1), 1373(a).

### **B. Unusual Mortality Event (UME) Requirements**

If an Unusual Mortality Event (UME) occurs with a marine mammal species, *i.e.*, an unexpected stranding that involves a significant die-off of a marine mammal population, the MMPA requires the Fisheries Service to respond *immediately*.<sup>152</sup> In fact, a UME is defined under the MMPA as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands *immediate* response.”<sup>153</sup> The issuance of a UME requires additional federal resources to be devoted to determining and mitigating the source of excessive mortality. Under a UME, the MMPA directs the Secretary of Commerce, who then delegates the duty to the Fisheries Service, to establish “a marine mammal unusual mortality event working group,” whose purpose is to determine whether a UME is occurring and to develop a contingency plan in response to the event.<sup>154</sup> The purpose of the contingency plan is to “(i) minimize death of marine mammals . . . ; (ii) assist in identifying the cause or causes of an unusual mortality event; (iii) determine the effects of an unusual mortality event on the size estimates of the affected populations of marine mammals; and (iv) identify any roles played in an unusual mortality event by physical, chemical, and biological factors[.]”<sup>155</sup> The MMPA provides for designation of onsite coordinators to respond to the UME.<sup>156</sup>

### **C. Take Reduction Teams/Take Reduction Plans**

To achieve the goals of the MMPA with respect to impacts from commercial fisheries, the Fisheries Service convenes Take Reduction Teams (TRTs) - interdisciplinary groups tasked with the development of Take Reduction Plans (TRPs).<sup>157</sup> TRT members are selected for their expertise regarding the conservation and biology of the marine mammal species or expertise regarding the fishing practices that result in the take of such species. TRTs are assembled to respond to specific needs and reconvene when the conservation needs of an MMPA-protected species necessitate changes to regulations.

The overarching goal of each TRP is “to reduce, within 5 years of [the plan’s] implementation, the incidental mortality or serious injury of marine mammals . . . to insignificant levels approaching a zero mortality and serious injury rate, taking into account the economics of the fishery, the availability of

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<sup>152</sup> 16 U.S.C. § 1421h.

<sup>153</sup> 16 U.S.C. § 1421(h)(6). The MMPA defines “stranding” as “an event in the wild in which (A) a marine mammal is dead and is – (i) on the beach or shore of the United States; or (ii) in the waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is – (i) on a beach or shore of the United States and unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.” 16 U.S.C. § 1421(h)(3).

<sup>154</sup> *Id.* § 1421c.

<sup>155</sup> *Id.*

<sup>156</sup> *Id.*

<sup>157</sup> NOAA Fisheries, *Marine Mammal Take Reduction Plans and Teams*,

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-take-reduction-plans-and-teams> (Nov. 30, 2020).



existing technology, and existing State or regional fishery management plans.”<sup>158</sup> This so-called ZRMG is the ultimate goal of marine mammal conservation in each TRP in the United States, with achievement of PBR acting as an intermediate step towards recovery.<sup>159</sup>

Under the MMPA, the Fisheries Service may “tak[e] into account the economics of the fishery” when designing a TRP, but the long-term goal of the plan must be to reduce mortality and injury “to insignificant levels approaching a *zero* mortality and serious injury rate.”<sup>160</sup> In the short term, however, the *rule must be designed to reduce takes to levels lower than the PBR within six months of implementation, regardless of economic impacts.*<sup>161</sup>

To accomplish this important task, each TRP contains a review of recent stock assessments and estimates of the total number of marine mammals being taken annually by species and by fishery. The TRP then explores recommended regulatory and voluntary measures and the expected percentage of the required reduction of mortality and serious injury that will be achieved by each measure. The TRP must also include a discussion of alternate management measures considered and reviewed by the TRT and a rationale for their rejection. Finally, a TRP must include monitoring plans to determine the success of each measure and a timeline for achieving specific objectives of the TRP.<sup>162</sup>

#### **D. Incidental Take Authorizations for Commercial Fishing**

The MMPA requires commercial fisheries to achieve an interim goal of PBR.<sup>163</sup> This requirement is the guiding metric of success for recovering marine mammal species and for incidental fishing mortality reductions. Any “take” over PBR is unauthorized. When “take” exceeds PBR, a TRP must be developed. In addition, if a commercial fisher has not registered their vessel and received an incidental take authorization (discussed below), then any “take” of a marine mammal species is subject to substantial civil fine and a knowing violation is subject criminal penalties, including imprisonment (civil fines of up to \$30,107 per violation<sup>164</sup> and criminal penalties of up to \$100,000 per violation and imprisonment for up to a year).<sup>165</sup>

In the context of commercial fisheries, the MMPA requires the Fisheries Service to conduct stock assessments to evaluate the status of marine mammal populations as well as human-caused mortality and injury.<sup>166</sup> The PBR level for a marine mammal population is also determined during the stock

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<sup>158</sup> 16 U.S.C. § 1387(f)(2).

<sup>159</sup> 16 U.S.C. § 1387(b).

<sup>160</sup> 16 U.S.C. § 1387(f)(2).

<sup>161</sup> *Id.*

<sup>162</sup> NOAA Fisheries, *Marine Mammal Take Reduction Plans and Teams*, (Nov. 30, 2020).

<sup>163</sup> *Id.* § 1387(f).

<sup>164</sup> 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. §6.3 (Jan. 15, 2021) (adjusting MMPA civil penalties for inflation in 2021 such that the maximum civil penalty for each violation of the MMPA is \$30,107).

<sup>165</sup> 16 U.S.C. § 1375(a), (b).

<sup>166</sup> 16 U.S.C. § 1386.

assessment, which is “the maximum number of animals (excluding natural mortality) that may be removed from the population while still allowing the stock to maintain its “optimum sustainable population.”<sup>167</sup> “Take” that exceeds the PBR for the marine mammal species violates the MMPA. The Fisheries Service must develop a TRP for each “strategic stock” of marine mammals, including species listed under the Endangered Species Act as threatened or endangered, that interact with a commercial fishery when that fishery causes “frequent” or “occasional” mortality or serious injury to the species.<sup>168</sup> Only in instances where takes will have a “negligible impact” on an endangered marine mammal species may the Fisheries Service more easily authorize “take” by commercial fisheries.<sup>169</sup>

### **1. Marine Mammal Authorization Program for Commercial Fisheries - MMPA List of Fisheries**

As part of the Marine Mammal Authorization Program, the Fisheries Service maintains the MMPA List of Fisheries that interact with marine mammals, which is updated annually. The list includes three categories. Category I lists fisheries that have frequent incidental mortality and serious injury for a marine mammal species (*i.e.*, greater than or equal to 50% of PBR). Category II lists fisheries with occasional incidental mortality and serious injury (*i.e.*, greater than 1% but less than 50% PBR). Category III lists fisheries with a remote likelihood of no known incidental mortality or serious injury (less than or equal to 1% of PBR).<sup>170</sup> Effective as of February 16, 2021, the Fisheries Service’s MMPA List of Fisheries includes both the lobster and Jonah crab fisheries as Category II fisheries that have “occasional interactions” with large whales. While the NARW is listed as a marine mammal with which the lobster fishery interacts, the species is not listed for the Jonah crab fishery.<sup>171</sup> Fisheries listed in Category I or II must apply for and receive a permit from the Fisheries Service, and U.S. flagged fishing vessels must register with the Fisheries Service and display a valid authorization decal.<sup>172</sup>

### **2. Marine Mammal Authorization Program for Commercial Fisheries – Additional Requirement for Depleted and/or Threatened or Endangered Species**

Authorization of incidental take of depleted and/or threatened or endangered marine mammals, such as the NARW, for commercial fisheries with frequent (MMPA List of Fisheries - Category I)<sup>173</sup> or

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<sup>167</sup> 16 U.S.C. § 1362(20).

<sup>168</sup> 16 U.S.C. §§ 1387(f)(1), 1387(c)(1)(A), 1362(19)(C).

<sup>169</sup> 16 U.S.C. § 1371(a)(5)(E)(iii).

<sup>170</sup> 16 U.S.C. § 1387(c).

<sup>171</sup> See NOAA Fisheries, *List of Fisheries Summary Tables*, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/list-fisheries-summary-tables> (Feb. 5, 2021).

<sup>172</sup> 16 U.S.C. § 1387(c).

<sup>173</sup> MMPA Category I fisheries are fisheries that have frequent incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

occasional (MMPA List of Fisheries - Category II)<sup>174</sup> incidental mortality or serious injury requires additional steps.<sup>175</sup> The Fisheries Service must first publish in the Federal Register a separate list of fisheries allowed to engage in such takes (“MMPA 101(a)(5)(E) list”).<sup>176</sup> To add a fishery to the MMPA 101(a)(5)(E) list, the Fisheries Service must make certain determinations. Specifically, for every endangered marine mammal for which the Fisheries Service plans to issue an incidental take authorization, the Fisheries Service must determine:

- the incidental mortality and serious injury from the fishery will have a “negligible impact” on the species;<sup>177</sup>
- a recovery plan has been developed or is being developed for the species;<sup>178</sup> and
- a monitoring program and a TRP is or will be in place for the species.<sup>179</sup>

The Fisheries Service’s determination is subject to public notice and comment.<sup>180</sup> After making this determination for every endangered marine mammal that a fishery takes, the Fisheries Service can add the fishery to the MMPA 101(a)(5)(E) list.<sup>181</sup> Only upon the publication of the MMPA 101(a)(5)(E) list are vessels operating in these fisheries eligible to receive incidental take authorizations.<sup>182</sup> These incidental take authorizations are valid for up to three consecutive years.<sup>183</sup> Any incidental take of marine mammals by commercial fisheries, therefore, is illegal without the publication of an MMPA 101(a)(5)(E) list and the accompanying determinations described above. The Fisheries Service is delinquent in its duty to publish this MMPA 101(a)(5)(E) list and to issue incidental take authorizations as required by the statute.

The publication of the MMPA 101(a)(5)(E) list, however, does not conclude the Fisheries Service’s duty. Since the Fisheries Service is authorizing take of *endangered* marine mammals, the ESA also

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<sup>174</sup> MMPA Category II fisheries are fisheries that have occasional incidental mortality and serious injuries of marine mammals (whether endangered or not). *See id.*

<sup>175</sup> 16 U.S.C. § 1387(a)(2) (noting that “[i]n the case of the incidental taking of marine mammals from species or stocks designated under this [Act] as depleted on the basis of their listing as threatened species or endangered species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), *both this section and section 1371(a)(5)(E) of this Act shall apply*” (emphasis added)).

<sup>176</sup> 16 U.S.C. § 1371(a)(5)(E). Please note that this is a different List of Fisheries than the one for non-endangered marine mammals called the “Marine Mammal Authorization Program.” *See* 16 U.S.C. § 1382(a).

<sup>177</sup> MMPA regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 216.103. For the latest guidance of “negligible impact” determinations in the context of MMPA Section 101(a)(5)(E), *see* National Marine Fisheries Service, Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E) (June 17, 2020), <https://media.fisheries.noaa.gov/dam-migration/02-204-02.pdf>.

<sup>178</sup> The MMPA does not specify a timeframe for when the recovery plan must be developed. There is also no case law on point for this specific issue.

<sup>179</sup> 16 U.S.C. § 1371(a)(5)(E)(i).

<sup>180</sup> 16 U.S.C. § 1371(a)(5)(E)(i).

<sup>181</sup> 16 U.S.C. § 1371(a)(5)(E)(ii).

<sup>182</sup> *Id.*

<sup>183</sup> *Id.*; 61 Fed. Reg. 64,500 (Dec 5, 1996).

applies. The Fisheries Service must publish a BiOp with an ITS.<sup>184</sup> Moreover, that ITS must include terms and conditions that detail how the authorized take will comply with the requirements of the MMPA.<sup>185</sup> Thus, for *endangered* marine mammals, the ITS must contain terms and conditions to ensure that any authorized take has only a “negligible impact” on the species.<sup>186</sup>

Even after completing these steps, the Fisheries Service’s duty is not discharged. If the Fisheries Service determines that the incidental mortality or serious injury in a fishery has more than a “negligible impact” on an endangered species, then the agency must issue emergency regulations to protect the species.<sup>187</sup>

#### **E. Emergency Action Under the MMPA**

If marine mammal “take” in a commercial fishery exceeds PBR, the Fisheries Service must take emergency action to reduce take.<sup>188</sup> *“Take” exceeding PBR must be reduced below PBR within six months.*<sup>189</sup> And, “[i]f [the Fisheries Service] finds that incidental mortality and serious injury of marine mammals is having, or is likely to have, an immediate and significant adverse impact on a stock or species, the [Fisheries Service] shall . . . prescribe emergency regulations to reduce incidental mortality and serious injury in that fishery.”<sup>190</sup> If the species at issue is endangered and the level of incidental mortality or serious injury from the authorized commercial fishery is “more than negligible,” then the Fisheries Service “shall use the emergency authority . . . to protect such species or stock, and may modify any permit granted . . . as necessary.”<sup>191</sup> For species with a TRP in effect, the emergency regulations must reduce incidental mortality and serious injury in the fishery and may remain in effect for up to 270 days.<sup>192</sup>

#### **F. MMPA Incidental Take Authorizations for Activities Other Than Commercial Fishing (e.g., Ocean Noise from Seismic Airgun Blasting for Offshore Oil and Gas Exploration)**

For activities other than commercial fishing, the Fisheries Service can only grant an incidental take authorization – whether for one year under an incidental harassment authorization (IHA) or for five years under a letter of authorization (LOA) – if the take request is for “small numbers of marine mammals of a species or stock” and will have only “negligible impact.”<sup>193</sup> While “small numbers” is not defined, “negligible impact” is defined as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.”<sup>194</sup> The “small numbers” and

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<sup>184</sup> 16 U.S.C. § 1536(c).

<sup>185</sup> 16 U.S.C. § 1536(b)(4).

<sup>186</sup> *Id.*; 16 U.S.C. § 1371(a)(5).

<sup>187</sup> 16 U.S.C. § 1371(a)(5)(E)(iii).

<sup>188</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii); 1387(g).

<sup>189</sup> 16 U.S.C. § 1387(f)(5)(A).

<sup>190</sup> 16 U.S.C. § 1387(g)(1).

<sup>191</sup> 16 U.S.C. § 1387(a)(5)(E)(iii); 1387(g).

<sup>192</sup> 16 U.S.C. § 1387(g)(1)(A), (3)(B), (4).

<sup>193</sup> 16 U.S.C. § 1371(a)(5)(A), (D).

<sup>194</sup> 50 C.F.R. § 216.103.

“negligible impact” determinations are legally separate and distinct requirements of the MMPA.<sup>195</sup> Additionally, the Fisheries Service, when granting an incidental take authorization, must require mitigation measures that achieve “the least practicable impact on such [marine mammal] species or stock and its habitat.”<sup>196</sup>

**G. MMPA Section 112(a) Provides Broad Rulemaking Authority, Which Can and Has Been Invoked to Address Vessel Strikes**

The Fisheries Service has broad rulemaking authority under Section 112(a) of the MMPA, which the agency has used in the past to protect marine mammals. The provision states: “The Secretary, in consultation with any other Federal agency to the extent that such agency may be affected, shall prescribe such regulations as are necessary and appropriate to carry out the purposes of this Act.”<sup>197</sup> The agency has invoked this authority twice in the past for NARWs: (i) a 1997 prohibition on approaches to NARWs,<sup>198</sup> and (ii) a 2008 Vessel Speed Rule implementing speed limits at times and places frequented by NARWs at that time to reduce vessel strikes.<sup>199</sup>

The 2008 Vessel Speed Rule has been modified a number of times since initial implementation. Current speed restrictions are limited to times and places where NARWs were expected to be as of 2008 (called Seasonal Management Areas or “SMAs”), and to areas where aggregations of NARWs are currently sighted during surveys (called Dynamic Management Areas or “DMAs”). SMAs are mandatory and established in the regulations for vessels above 65 feet (19.8m). DMAs are created and dissolved to react to whale aggregations, posted publicly, and are voluntary in nature.<sup>200</sup>

When the regulations to reduce vessel strikes were updated in 2013 to remove a sunset provision, the Fisheries Service included a requirement in the regulations for the agency to conduct a review of the efficacy of existing regulations to minimize ship strikes with large whales in the U.S. Atlantic.<sup>201</sup> The regulations required a report evaluating “the conservation value and economic and navigational safety impacts of this section, including any recommendations to minimize burden of such impacts,” which was due no later than January 1, 2019.<sup>202</sup> The required report was apparently completed in June 2020 and was only published for public comment in January 2021, *two years* after it was required by regulation.

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<sup>195</sup> *NRDC v. Evans*, 364 F.Supp.2d 1083, 1102 (N.D. Cal. 2003).

<sup>196</sup> 16 U.S.C. § 1371(a)(5)(D)(ii)(I) (for IHAs); 16 U.S.C. § 1371(a)(5)(A)(i)(II)(aa) (for LOAs).

<sup>197</sup> 16 U.S.C. § 1382.

<sup>198</sup> See North Atlantic Right Whale Protection, 62 Fed. Reg. 6,729, 6,736 (Feb. 13, 1997) (codified at 50 C.F.R. pts. 217, 222).

<sup>199</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. at 60,182.

<sup>200</sup> NOAA Fisheries, *Endangered Species Conservation – Reducing Strikes to North Atlantic Right Whales*, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales> (last updated April 1, 2021).

<sup>201</sup> 78 Fed. Reg. 73,726 (December 9, 2013).

<sup>202</sup> *Id.*

#### IV. The Coast Guard Authorization Act

The U.S. Coast Guard has legal authority to regulate vessel traffic. In 2018, Congress passed the Coast Guard Authorization Act, which, among other things, re-codified and amended various provisions of the prior Ports and Waterways Safety Act.<sup>203</sup> The U.S. Coast Guard is authorized under this statute to manage shipping in a number of ways that can benefit NARWs including:

- Establishing vessel traffic services and routing measures, e.g. traffic separation schemes;
- Conducting port access route studies to evaluate proposed routing measures; and
- Establishing mandatory ship reporting systems to disseminate information about marine mammals, including North Atlantic right whales.

The U.S. Coast Guard has significant authority under the law to implement measures to make vessel traffic safer and more protective of the marine environment. In fact, the U.S. Coast Guard is required to take into account “all relevant factors” concerning navigation and safety, as well as “protection of the marine environment” and “environmental factors,” among other things.<sup>204</sup> The U.S. Coast Guard is thus expressly directed to consider protecting the marine environment when it promulgates measures to control vessel traffic, including port access route studies, traffic separation schemes, areas to be avoided, and mandatory ship reporting systems.

The U.S. Coast Guard, in coordination with the Fisheries Service, can implement vessel traffic routing measures, including traffic separation schemes (“TSS”) and areas to be avoided (“ATBA”) to help reduce ship traffic through areas of high whale density.<sup>205</sup> The U.S. Coast Guard and the Maritime Administration, which is housed within the Department of Transportation, have authority to approve licenses for the construction of deepwater ports, and have the obligation to ensure that such ports comply with the MMPA and the ESA.<sup>206</sup> The U.S. Coast Guard also manages two mandatory ship reporting systems (“MSRS”) under which vessels entering core whale habitat areas must report to the U.S. Coast Guard; in return, they receive information regarding recent sighting of NARWs and information on how to avoid vessel strikes.<sup>207</sup> Last but certainly not least, the U.S. Coast Guard is charged with enforcing the ESA and MMPA, and provides patrols dedicated to enforcement and support to the Fisheries Service in facilitating NARW population monitoring.<sup>208</sup>

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<sup>203</sup> Frank LoBiondo Coast Guard Authorization Act of 2018, Pub. L. No. 115-282, § 402(e), 132 Stat. 4192, 4264 (“Ports and Waterways Safety Act . . . , as amended by this Act, is repealed.”).

<sup>204</sup> 46 U.S.C. § 7001(a)(1).

<sup>205</sup> See, e.g., 46 U.S.C. § 70003(a); 2010 TSS Interim Rule, 75 Fed. Reg. at 77,531.

<sup>206</sup> 33 C.F.R. § 148.3(a). MARAD is an agency within the U.S. Department of Transportation that is responsible for ensuring the safety, security, and sustainability of the U.S. waterborne transportation system (i.e., shipbuilding, shipping, port activities, and more). See *About Us*, U.S. DEP’T OF TRANSPORTATION, MARITIME ADMIN., <https://www.maritime.dot.gov/about-us> (last updated June 17, 2020).

<sup>207</sup> 46 U.S.C. § 70005(d); 33 C.F.R. § 169.100.

<sup>208</sup> United States Coast Guard, *Port Access Route Study to Analyze Potential Vessel Routing Measures for Reducing Vessel (Ship) Strikes of North Atlantic Right Whales 2–3* (2005) [hereinafter “2005 Port Access Route Study”].

## V. National Environmental Policy Act (NEPA)

Congress enacted the National Environmental Policy Act (NEPA) in 1969 to ensure that federal agencies incorporated environmental concerns into their decision-making processes.<sup>209</sup> In furtherance of this goal, NEPA compels federal agencies to prospectively evaluate the environmental impacts of proposed actions that they carry out, fund, or authorize. Federal agencies must prepare an Environmental Impact Statement (EIS) whenever they propose “major Federal actions significantly affecting the quality of the human environment.”<sup>210</sup> The EIS details the impacts of the federal action on the environment and demonstrates careful consideration of reasonable alternatives.<sup>211</sup>

A “reasonable range” of alternatives must be evaluated in the EIS process to address the purpose and need of proposed agency action.<sup>212</sup> Public involvement is essential to implementing NEPA; it “helps the agency understand the concerns of the public regarding the proposed action and its environmental impacts, identify controversies, and obtain the necessary information for conducting the environmental analysis.”<sup>213</sup> Federal agencies also have continuing obligations pursuant to NEPA and must take a “hard look” at the environmental effects of planned actions both well before and after a proposal has received initial approval.<sup>214</sup> Federal agencies also have an ongoing duty to obtain high-quality information, accurate scientific analysis, and “full and fair discussion” of direct and indirect environmental impacts.<sup>215</sup>

## VI. Outer Continental Shelf Lands Act (OCSLA)

Under the Outer Continental Shelf Lands Act (OCSLA), the Secretary of Interior is responsible for the administration of mineral exploration and the development of the outer continental shelf (OCS).<sup>216</sup> The OCS encompasses all submerged lands and waters lying seaward of state waters<sup>217</sup> out to the limits of the continental shelf, which is often the same as the 200 nautical miles limit of

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<sup>209</sup> 42 U.S.C. § 4331(a).

<sup>210</sup> 42 U.S.C. § 4332(C).

<sup>211</sup> *Id.*

<sup>212</sup> 40 C.F.R. § 1502.14(a).

<sup>213</sup> NOAA Administrative Order Series 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (May 20, 1999), [https://www.nepa.noaa.gov/NAO216\\_6.pdf](https://www.nepa.noaa.gov/NAO216_6.pdf).

<sup>214</sup> *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989).

<sup>215</sup> 40 C.F.R. §§ 1500.1(b), 1502.1, 1502.16(a),(b); *Friends of Clearwater v. Dombeck*, 222 F.3d 552, 557 (9th Cir. 2000) (explaining that “an agency that has prepared an EIS . . . must be alert to new information that may alter the results of its original environmental analysis”).

<sup>216</sup> 43 U.S.C. §§ 1331 et seq.

<sup>217</sup> Submerged Lands Act, 43 U.S.C. §§1301-1315. Congress enacted the Submerged Lands Act in 1953 to grant states title to the natural resources located within three nautical miles of their coastline – with the exception of Texas and the Gulf Coast of Florida, which were granted state jurisdiction out to nine nautical miles.

the EEZ but can extend beyond this limit where the continental margin is larger – as it is in places on the Atlantic coast.<sup>218</sup>

With respect to offshore oil and gas energy development, OCSLA authorizes the Bureau to lease portions of the OCS for mineral exploration and development.<sup>219</sup> OCSLA states that the Department of Interior (“Interior”) must develop resources in the OCS “subject to environmental safeguards” with input from affected state governments.<sup>220</sup> To that end, OCSLA separates the leasing process into different stages.<sup>221</sup> In the first stage, the Secretary of the Interior (“Secretary”) develops a five-year national leasing program.<sup>222</sup> In the second stage, the Secretary conducts lease scales in the OCS pursuant to the leasing program.<sup>223</sup> In the third stage, lessees submit exploration plans for government approval to explore the lease area for potential oil and gas development.<sup>224</sup> In the fourth stage, lessees submit development and production plans for governmental approval, after which oil and gas production can begin.<sup>225</sup> Section 18 of OCSLA directs the Bureau to create a national five-year program, which sets forth an oil and gas leasing schedule. The purpose of Section 18 is to ensure that the national leasing program strikes a balance between environmental, social, and economic interests.<sup>226</sup> To that end, Section 18(a)(2) sets forth eight enumerated factors, which the Secretary must take into account during the development of the national leasing program, including:

- existing information concerning the geographical, geological, and ecological characteristics of such regions;
- an equitable sharing of developmental benefits and environmental risks among the various regions;
- the location of such regions with respect to, and the relative needs of, regional and national energy markets;

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<sup>218</sup> 43 U.S.C. §§ 1331 et seq.; *see also* United Nations Convention on the Law of the Sea, 1833 UNTS 397, 21 ILM 1261 (1982), arts. 55-57 (delineating sovereign rights and jurisdiction of a coastal State in the EEZ out to 200 nautical miles from shore, which includes conserving and managing living natural resources in the water column); *id.* arts. 76-77 (defining “continental shelf” and noting that a coastal State has jurisdiction over natural resources in the area, including mineral resources and other non-living resources in the seabed and subsoil together with living, sedentary species on the seabed or subsoil). For purposes of offshore wind energy facilities, Article 78 of UNCLOS is important as the provisions relates to waters and air space above the continental shelf limit state sovereignty to ensure the rights and freedoms of other States. *Id.*, art. 78 (noting that “the rights of a coastal State over the continental shelf must not infringe or result in the unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention”).

<sup>219</sup> BOEM, <https://www.boem.gov/OCS-Lands-Act-History/> (last visited Feb. 28, 2019).

<sup>220</sup> 43 USCS § 1332.

<sup>221</sup> *Tribal Village of Akutan v. Hodel*, 869 F.2d 1185, 1188 (D.C. Cir. 1988).

<sup>222</sup> *Id.*

<sup>223</sup> *Id.*

<sup>224</sup> *Id.*

<sup>225</sup> *Id.*

<sup>226</sup> *Id.* at § 1344(a)(2).



- the location of such regions with respect to other uses of the sea and seabed, including fisheries, navigation, existing or proposed searoutes, potential sites of deepwater ports, and other anticipated uses of the resources and space of the OCS;
- the interest of potential oil and gas producers in the development of oil and gas resources as indicated by exploration or nomination;
- laws, goals, and policies of affected States which have been specifically identified by the Governors of such States as relevant matters for the Secretary's consideration;
- the relative environmental sensitivity and marine productivity of different areas of the OCS; and
- relevant environmental and predictive information for different areas of the OCS.<sup>227</sup>

Section 18(a)(3) directs the Secretary to “obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>228</sup>

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<sup>227</sup> *Id.* at § 1344.

<sup>228</sup> *Id.* at § 1344(a)(3).

## DISCUSSION

### **I. Fishing Gear Entanglement: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Fishing Gear Entanglement**

#### **A. The Proposed Fishing Gear Entanglement Risk Reduction Rule Demonstrates the U.S. Government’s Failure to Effectively Comply With, Implement, or Enforce the Marine Mammal Protection Act and the Endangered Species Act**

As early as 2016, the Fisheries Service reported to the Atlantic Large Whale Take Reduction Team (ALWTRT), formed pursuant to the MMPA, that NARW abundance was in decline and mortality and serious injury continued to be above PBR levels, which should have triggered immediate management action by the ALWTRT to reduce mortality and serious injury.<sup>229</sup> Despite this clear indication that legally required action was necessary, the ALWTRT merely continued to meet, deliberate, and discuss responses through 2017 and 2018. The ALWTRT only began formally considering management action after the Fisheries Service published a technical memorandum in September 2018 entitled, *North Atlantic Right Whales- Evaluating Their Recovery Challenges in 2018*.<sup>230</sup>

The ALWTRT met during 2018 and 2019 to explore alternatives to reduce takes and mortality and serious injury for North Atlantic right whales. Ultimately, in April 2019, the ALWTRT came up with a plan to reduce entanglements by 60-80%.<sup>231</sup> The level of risk reduction was derived from government estimates that recent mortality and serious injury of NARWs was nearly *nine times PBR* during the 2013-2017 period.<sup>232</sup> The ALWTRT ultimately selected a suite of measures that will reduce vertical lines, adopt weaker rope breaking strengths, and improve gear marking across the Northeast region.<sup>233</sup> Pursuant to the MMPA, the ALWTRT representatives of each region worked to craft amendments to the Atlantic Large Whale Take Reduction Plan (ALWTRP) that were acceptable to the members, and ultimately the ALWTRT voted near-unanimously to accept the suite of measures including vertical line reductions and the use of weak rope – a heretofore untried measure.<sup>234</sup> This action occurred *two and a half years* after the agency alerted the ALWTRT that

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<sup>229</sup> Atlantic Large Whale Take Reduction Team Meeting Summary November 2016.

<https://www.fisheries.noaa.gov/webdam/download/89891622>

<sup>230</sup> National Marine Fisheries Service, *NOAA Technical Memorandum NMFS-NE-247, North Atlantic Right Whales – Evaluating Their Recovery Challenges in 2018* (Sept. 2018), <https://repository.library.noaa.gov/view/noaa/19086>.

<sup>231</sup> Email from Colleen Coogan to ALWTRT Members and Alternates (April 2019) (on file with Oceana).

<sup>232</sup> ALWTRT Risk Reduction Targets using 2013-2018 mortality and serious injury with .9 PBR and following GAMMS ([https://archive.fisheries.noaa.gov/garfo/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/alwtrt\\_risk\\_reduction\\_targets\\_using\\_2013-2017\\_with\\_.9\\_pbr\\_and\\_following\\_gamms.pdf](https://archive.fisheries.noaa.gov/garfo/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/alwtrt_risk_reduction_targets_using_2013-2017_with_.9_pbr_and_following_gamms.pdf))

<sup>233</sup> Cross Caucus Outcomes as Presented and Voted Upon.

[https://archive.fisheries.noaa.gov/garfo/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross\\_caucus\\_outcomes\\_as\\_presented\\_and\\_voted\\_upon\\_4\\_26\\_19.pdf](https://archive.fisheries.noaa.gov/garfo/protected/whaletrp/trt/meetings/April%202019/Meeting%20Materials/cross_caucus_outcomes_as_presented_and_voted_upon_4_26_19.pdf)

<sup>234</sup> *Id.*

NARW “takes” were above PBR. Emergency government action to protect this endangered marine mammal was triggered under environmental law, specifically the MMPA, as soon as “takes” of NARWs rose above PBR.<sup>235</sup> If marine mammal “take” in a commercial fishery exceeds PBR, the Fisheries Service *must* take emergency action to reduce take *within six months*.<sup>236</sup> The Fisheries Service has failed to effectively comply with, implement, or enforce this crucial provision of the MMPA.

During the summer of 2019, the Fisheries Service published a Notice of Intent to prepare an EIS under NEPA to evaluate a range of alternatives to modify the ALWTRP.<sup>237</sup> The agency held scoping hearings during the summer of 2019 to solicit public input on alternatives to address the purpose and need for the major federal action.<sup>238</sup> Comments were directed at the suite of measures developed by the ALWTRT, but other ideas had been proposed by a wide range of stakeholders in the conservation, academic, and fishing industry communities. The scoping period under NEPA ended on September 16, 2019.

On December 31, 2020, the Fisheries Service announced, via the Federal Register, that it would receive public notice and comment on proposed amendments to the Take Reduction Plan (Proposed Risk Reduction Rule) and the related Draft EIS by March 1, 2021. As Oceana’s comment letter on the Proposed Risk Reduction Rule and Draft EIS (attached) makes clear, the agency’s proposal is severely lacking and demonstrates the Fisheries Service’s utter failure to effectively comply with, implement, or enforce the MMPA and the ESA.<sup>239</sup> The Proposed Risk Reduction Rule is not based on best available science and is focused on a low-risk reduction goal of merely 60%. Moreover, the Proposed Risk Reduction Rule is focused on economic impacts to the fishery as opposed to a higher risk reduction goal that would focus – as is required by the MMPA and ESA – on protection of the endangered marine mammal species.<sup>240</sup> Worse yet, the Fisheries Service’s proposed measures rely heavily on an untested theory that weak rope inserts will allow NARWs to break free – provided they are able to exert 1700 lbs. of force, which may not be feasible for smaller whales, including juveniles. The Fisheries Service *fully admits* that the Proposed Risk Reduction Rule will not comply with the requirements of the MMPA and ESA to protect NARWs until perhaps 2030, if then.<sup>241</sup>

The continued delay in agency action to protect NARWs is itself a failure to effectively comply with, implement, or enforce the law. Under the MMPA, the Fisheries Service *is required* to create interim emergency regulations to reduce entanglements with fishing gear if it is determined that these interactions exceed acceptable levels.<sup>242</sup> The Fisheries Service acknowledges that commercial

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<sup>235</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii); 1387(g).

<sup>236</sup> 16 U.S.C. § 1387(f)(5)(A).

<sup>237</sup> 84 Fed. Reg. 37,822 (Aug. 2, 2019).

<sup>238</sup> “NMFS’ purpose for the proposed action is to fulfill the mandates of the MMPA to reduce impacts of fisheries on large whale species below their PBR level.”

<sup>239</sup> Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) (attached).

<sup>240</sup> Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) (attached).

<sup>241</sup> Draft BiOp at 24, Table 2 – Actions to be taken under the Framework.

<sup>242</sup> 16 U.S.C. §§ 1371(a)(5)(E)(iii); 1387(g).

fishing interactions with NARWs have been excessive since 2016.<sup>243</sup> But in all this time, the agency has failed to act in a timely manner as required under environmental law to modify existing regulations to protect NARWs. The Proposed Risk Reduction Rule, which will not provide the immediate protections needed and required by law, clearly shows that the Fisheries Service has no intention of effectively complying with, implementing, or enforcing the MMPA and ESA.

**B. The Draft and Final Environmental Impact Statements Demonstrate the U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce NEPA**

As discussed in Oceana’s March 1, 2021 comment letter on the Proposed Risk Reduction Rule and Draft EIS, the Fisheries Service failed to effectively comply with, implement, or enforce NEPA in its development of the Draft EIS. By failing to consider a reasonable range of alternatives and providing justifications based on arbitrary notions of stakeholder popularity rather than effectiveness, the agency has failed to effectively comply with, implement, or enforce its obligation under NEPA to take a “hard look” at the public comments and the impacts of its actions.<sup>244</sup> The Fisheries Service also failed to effectively comply with, implement, or enforce NEPA when it seemingly ignored the majority of written comments and instead concocted the minimalist suite of measures for protecting NARWs by using measures agreed upon by the fishing industry and state governments in closed door meetings.<sup>245</sup> Alarming, the agency utterly failed to consider cumulative impacts of all human activities on NARWs in the Draft EIS as required by NEPA.<sup>246</sup> In addition, neither the Draft EIS nor the Proposed Risk Reduction Rule it purports to support is based on “best available science,” as required by NEPA as well as the ESA and the MMPA; this failing occurred in relation to several important scientific factors, including NARW population data, mortality and serious injury data, the number and location of buoy lines in the water, the decision support tool, and the co-occurrence model.<sup>247</sup> In his expert statement, which was submitted with Oceana’s March 1, 2021 comment letter, Dr. Sean Brilliant of the Dalhousie University Department of Oceanography notes the Fisheries Service’s failure to account for uncertainty inherent in the decision support tool – the tool which forms the foundation underlying the entire Proposed Risk Reduction Rule.<sup>248</sup>

**C. The Final Biological Opinion (BiOp) Demonstrates the U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce the Endangered Species Act**

Concurrent with the development of the Proposed Risk Reduction Rule, the Fisheries Service developed a new BiOp for the American lobster and Jonah crab fisheries as well as several other “batched” fisheries and a New England Fishery Management Council essential fish habitat

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<sup>243</sup> Take Reduction Team Meeting Summary November 2016.

<https://www.fisheries.noaa.gov/webdam/download/89891622>

<sup>244</sup> See *Marsh*, 490 U.S. at 374.

<sup>245</sup> Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) (attached).

<sup>246</sup> Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) (attached).

<sup>247</sup> Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) (attached).

<sup>248</sup> Oceana, *Comment Letter on Proposed Risk Reduction Rule and Draft EIS* (Mar. 1, 2021) at Appendix I – Brilliant Opinion (attached).

amendment.<sup>249</sup> In 2017, the agency reinitiated the consultation process for the American lobster fishery because of outdated information in the 2014 BiOp. This consultation was also the subject of review by a U.S. court, which found in 2020 that the agency’s 2014 BiOp failed to effectively comply with, implement, or enforce the ESA by omitting the required Incidental Take Statement (ITS) that would set limits on allowable take and require measures to mitigate harmful impacts to NARWs.<sup>250</sup> The court held: “[T]he [Fisheries] Service’s failure to include an ITS in its 2014 BiOp after finding that the American lobster fishery had the potential to harm the North Atlantic right whale at more than three times the sustainable rate is about as straightforward a violation of the ESA as they come.”<sup>251</sup>

The Final BiOp, conducted pursuant to Section 7 of the Endangered Species Act, determines, among other things, whether the American lobster and Jonah crab fisheries are likely to “jeopardize” the continued existence of NARWs, what level of incidental take is acceptable for the fisheries and any terms, conditions or reasonable and prudent measures are necessary for the fisheries to be compliant with the ESA.

The Fisheries Service solicited public comment on the Draft BiOp as of January 15, 2021. Oceana submitted comments on the Draft BiOp by the deadline of February 19, 2021, noting, in no uncertain terms, the agency’s many failures in that document to effectively comply with, implement, or enforce the ESA and MMPA to protect NARWs.<sup>252</sup> On May 27, 2021, three days prior to the date required by court order, the Fisheries Service issued the Final BiOp.<sup>253</sup>

### 1. North Atlantic Right Whale Conservation Framework

One of the most egregious aspects of the Final BiOp is the agency’s admission, in the appended NARW Conservation Framework (table excerpted above), that “previous efforts have not reduced entanglements to the degree needed to satisfy ESA and MMPA requirements, and additional efforts are necessary to recover this critically endangered species.”<sup>254</sup> This admission is then immediately

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<sup>249</sup> National Marine Fisheries Service, *Draft Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council’s Omnibus Essential Fish Habitat Amendment 2* at 19-21 (Jan. 15, 2021) [hereinafter “Draft BiOp”]; see also Michael J. Asaro, *Update on NOAA Fisheries Right Whale Recovery Actions*, NOAA Fisheries (November 30, 2017) at 6, [https://www.greateratlanticfisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro\\_trtwebinar\\_nov2017.pdf](https://www.greateratlanticfisheries.noaa.gov/protected/whaletrp/trt/meetings/2017%20Nov/asaro_trtwebinar_nov2017.pdf).

<sup>250</sup> *CBD et al v. Ross*, 2020 WL 1809465 (D.D.C. April 9, 2020).

<sup>251</sup> *CBD et al. v. Ross*, 2020 WL 1809465 (D.D.C. April 9, 2020).

<sup>252</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>253</sup> National Marine Fisheries Service, *Draft Endangered Species Act Section 7 Consultation Biological Opinion on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel / Squid / Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder / Scup / Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fisheries Management Council’s Omnibus Essential Fish Habitat Amendment 2* (May 27, 2021) [hereinafter “Final BiOp”].

<sup>254</sup> Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 475-76 (May 2021).

followed by the agency’s wholly inadequate plan to address these shortcomings by only reducing NARW mortality and serious injury from fishing gear entanglement by 60% over the course of the next 10 years.<sup>255</sup>

Based on the goal of achieving a PBR of 0.8 under the MMPA<sup>256</sup> and an annual lethal take of zero set under the ESA,<sup>257</sup> the NARW Conservation Framework indicates that on *day one*, the lobster and crab fisheries will exceed their authorized ESA lethal take by 2.69, and the MMPA PBR by 1.9.<sup>258</sup> This approach is inconsistent with the requirements in both the ESA and the MMPA. The Final BiOp constitutes a complete failure to effectively comply with, implement, or enforce the ESA and MMPA. The agency must specify measures that will adequately and effectively reduce fishing gear entanglement risks to NARWs *now – not 10 years from now*.<sup>259</sup> Both the Draft and Final BiOp incorporated the NARW Conservation Framework into the analysis, resulting in the brazen admission that the MMPA requirement to reduce “take” to below PBR within six months will not be met until at least 2030.<sup>260</sup>

## 2. No Jeopardy Determination

The Final BiOp includes a “no jeopardy” determination, concluding that the species will continue to decline for the next ten years and likely beyond, but not at a rate higher than it would in the absence of federal fisheries.<sup>261</sup> The proposed Risk Reduction Rule, the Final BiOp, and the ITS issued by the Fisheries Service will enable the authorization of federal fisheries, which put over 900,000 vertical lines in the water each year in places where the whales are known to frequent.<sup>262</sup> In just the last decade, the Fisheries Service reported that 218 NARWs have likely succumbed to fishing gear entanglement and vessel strikes – approximately 24 whale deaths per year.<sup>263</sup> Many of these deaths are likely females and calves.<sup>264</sup>

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<sup>255</sup> Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 476-79 (May 2021).

<sup>256</sup> 2020 Stock Assessment at 18, Table 1 .

<sup>257</sup> Final BiOp at 390-391, Table 83.

<sup>258</sup> Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 478 (May 2021) (stating that mortality and serious injury in 2021 will only be reduced to an average annually of 2.69, which does not meet the zero lethal take required in the Final BiOp and is approximately 1.9 higher than the PBR of 0.8.). Notably, the Draft BiOp had projected slightly lower mortality and serious injury as of 2021 of 2.2 NARWs.

<sup>259</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>260</sup> Final BiOp at Appendix A: North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region at 479 (May 2021).

<sup>261</sup> Draft BiOp at 329-343.

<sup>262</sup> NOAA Fisheries, *Draft Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for Amending The Atlantic Large Whale Take Reduction Plan: Risk Reduction Rule – Vol. II*, Appendix 5.1, Exhibit 8 (Dec. 30, 2020).

<sup>263</sup> Email from Colleen Coogan to Atlantic Large Whale Take Reduction Team Members and Alternates (10-26-2020) (stating that “[s]ince the population peaked at 481 in 2011, after accounting for 103 births, roughly 218 North Atlantic right whales have died of presumed anthropogenic causes—this is a rate of roughly 24 whale deaths per year.”)

<sup>264</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021).

The Fisheries Service’s jeopardy analysis focuses on the female population of NARWs and projects that, were the federal fisheries closed, there would be a loss of at least 16 females in the next 10 years due to other threats to the species (e.g., vessels strikes, climate change, etc.) and a loss of 71 females over the next 50 years.<sup>265</sup> With the federal fisheries open and the proposed (minimal) measures put in place in the various fisheries over the next 10 years, the Fisheries Service posits a loss of 22 females in the next 10 years, and a loss of 77 females over the next 50 years.<sup>266</sup> A loss of even one North Atlantic right whale, especially a female, is over and above the allowable limit under environmental law. With these dire projections for the species, it is beyond credulity that the Fisheries Service still made a “no jeopardy determination.”

Moreover, the Final BiOp relies heavily on the measures in the proposed Risk Reduction Rule to reduce risks to NARWs, and that rule, as proposed, will not adequately reduce the number vertical lines used in the lobster and crab fisheries to protect NARWs, the authorization of those fisheries seems certain to jeopardize the continued existence of NARWs. As a federal judge has already astutely pointed out in the context of related litigation, the Fisheries Service appears to be trying to skirt the letter of environmental law to avoid imposing fishing gear changes (e.g., ropeless gear) or dynamic time-area closures of the fishery when NARWs are present. By failing to effectively comply with, implement, or enforce the ESA, the agency jeopardizes the existence of one of the most critically endangered species on the planet.

### 3. Incidental Take Statement - Lethal Take

In the Draft and Final BiOp, the Fisheries Service stated:

NMFS is including an incidental take exemption for non-lethal take of North Atlantic [right], fin, sei, and sperm whales. At this time, we are authorizing zero lethal take of these whales because the lethal incidental take of ESA-listed whales has not been authorized under section 101(a)(5) of the MMPA. Following issuance of such authorizations, NMFS may amend this Opinion to adjust lethal incidental take allowance for these species, as appropriate.<sup>267</sup>

This statement flies in the face of an April 2020 court order requiring the Fisheries Service to issue a new BiOp with an ITS that complies with both the Endangered Species Act and the MMPA.<sup>268</sup> The Fisheries Service cannot find that the PBR for NARWs is 0.8, meaning that less than one whale can be killed or seriously injured and then proceed to issue an ITS with legally non-compliant language that may allow lethal takes by commercial fisheries above this threshold in the future “as appropriate.” The statement also flags the persistent failure of the Fisheries Service to comply with

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<sup>265</sup> Final BiOp at 330-31.

<sup>266</sup> Final BiOp at 332-33.

<sup>267</sup> Draft BiOp at 390-91; Final BiOp at 390.

<sup>268</sup> *CBD et al. v. Ross*, 2020 WL 1809465 at \*10 (D.D.C. April 9, 2020).

the MMPA section 101(a)(5), discussed below,<sup>269</sup> wherein the agency is required, but has utterly failed to issue authorizations for any the take of this endangered marine mammal in commercial fisheries. The Fisheries Service machinations to avoid compliance with clear statutory duties of environmental law in order to avoid requiring that the lobster and crab fisheries change their fishing methods or implement dynamic time-area fishery closures<sup>270</sup> is yet another egregious example of how the U.S. Government has failed to effectively comply with, implement, or enforce environmental laws.

#### 4. Incidental Take Statement - Sub-Lethal Take

The Draft BiOp included an ITS that allows for average annual sub-lethal take over a five year period of 11.04% of the species, which amounts to approximately 40 NARWs per year assuming a stock of approximately 360 whales.<sup>271</sup> In the Final BiOp, the Fisheries Service only slightly revised this average annual sub-lethal take to 9.14% of the population, which is approximately 39 NARWs per year assuming a stock of approximately 360 whales.<sup>272</sup> This, despite the Fisheries Service's acknowledgement in the very same document that "whales may not die immediately from an entanglement in fishing gear but may gradually weaken or otherwise be affected so that further injury or death is likely."<sup>273</sup> Scientific studies abound with evidence that the sub-lethal effects of fishing gear entanglement on NARWs are a significant cause for concern for the species. For example, a 2012 study estimated that around 83% of all North Atlantic right whales have been entangled at least once in their lifetime,<sup>274</sup> and recent science has demonstrated that entanglement mortalities have increased from 21% between 1970-2002, to 51% between 2003-2018.<sup>275</sup> However, a 2021 study co-authored by the Fisheries Service's leading NARW population biologist found that, from 2010 to 2017, only 29% of NARW mortalities were observed; "cryptic [i.e., unobserved] deaths due to entanglements significantly outnumber[] cryptic deaths from vessel collisions or other causes."<sup>276</sup> Even if death is not the result, a recent study shows that the sub-lethal health effects of entanglements can stunt NARW growth; in fact, NARW body lengths have been decreasing since 1981, and arrested growth may lead to reduced reproductive success.<sup>277</sup> The Fisheries Service is

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<sup>269</sup> See section below entitled, "General Failure of the U.S. Government to Implement and Effectively Enforce the Marine Mammal Authorization Program for Commercial Fisheries, Especially for Threatened or Endangered Species Under the MMPA"

<sup>270</sup> *CBD et al. v. Ross*, 2020 WL 1809465 at \*8 (D.D.C. April 9, 2020) (noting U.S. government defendants' argument "that because the fishery would not have been able to proceed had they complied with the ESA, NMFS was justified in abandoning the Act's directives altogether").

<sup>271</sup> Draft BiOp at 390; see also *id.* at 392 (Table 81).

<sup>272</sup> Final BiOp at 391 (Table 83).

<sup>273</sup> Final BiOp at 137 (citing Hayes et al., *NOAA Technical Memorandum NMFS-NE-247 – North Atlantic right whales – evaluating their recovery challenges in 2018* (Sept. 2018)).

<sup>274</sup> Knowlton et al., *Monitoring North Atlantic right whale Eubalaena glacialis entanglement rates: a 30 yr retrospective*, Marine Ecology Progress Series, vol. 466, pp. 293-302 (2012).

<sup>275</sup> Sharp, S.M. et. al, *Gross and histopathologic diagnosis from North Atlantic right whale Eubalaena glacialis mortalities between 2003 and 2018* (2018), Diseases of Aquatic Organisms, Vol. 135, pp. 1-31 (2019).

<sup>276</sup> Pace et al., *Cryptic Mortality of North Atlantic right whales*, Conservation Science and Practice, <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346>.

<sup>277</sup> Stewart et al., *Decreasing body lengths in North Atlantic right whales*, Current Biology (2021).



violating its obligations under the ESA and MMPA to protect NARWs by turning a blind eye to the very real risks to NARWs posed by sub-lethal takes due to entanglement in fishing gear.<sup>278</sup>

## 5. Reasonable and Prudent Measures / Terms and Conditions

Reasonable and Prudent Measures (RPMs) and the related Terms and Conditions (T&Cs) are supposed to reduce the impact of incidental take; however, the RPMs and T&Cs offered up by the Fisheries Service, which are very similar in the Draft and Final BiOp, are insufficient to meet this requirement.<sup>279</sup> As discussed in greater detail in Oceana’s comment letter on the Draft BiOp, the RPMs and T&Cs proposed are a grab bag of vague measures that will do little to prevent the further decline of NARWs.<sup>280</sup>

## 6. Best Scientific and Commercial Data Available

The Fisheries Service failed to effectively comply with, implement, or enforce the ESA when it ignored the impact of hundreds of thousands of vertical trap/pot lines on NARW critical habitat.<sup>281</sup> And, the agency’s failure to use “best scientific and commercial data available” in its ESA Section 7 analysis, to reduce the number of sub-lethal NARW takes authorized in the fishery, or to account for cumulative effects of other human activities are just more examples of the agency’s failure to effectively comply with, implement, or enforce the ESA.<sup>282</sup>

The Final BiOp, ITS, and NARW Conservation Framework rely heavily on the Proposed Risk Reduction Rule for the lobster and crab fisheries as well as future Fisheries Service actions – that may or may not actually occur – *over the next 10 years*. These crucial government analyses also rely on measures for other fisheries that have yet to be created, much less implemented, to achieve its goal of preventing further decline of the NARW population.<sup>283</sup> *With only 360 individuals remaining, the species does not have 10 years to wait*; viable and effective measures must be put in place immediately as required under the MMPA and ESA.

Worse yet, *over four years* have already passed and been lost since the agency’s recognition of a need for immediate action under the UME declared in early 2017. The agency’s failure to effectively comply with, implement, or enforce the relevant environmental laws in a timely manner has been and will continue to be a death sentence for far too many NARWs and could lead to species extinction.

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<sup>278</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>279</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>280</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>281</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>282</sup> Oceana, *Comment Letter on Draft BiOp* (Feb. 19, 2021) (attached).

<sup>283</sup> Draft BiOp at 24, Table 2 – Actions to be taken under the Framework.

**D. General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce ESA Section 10 Requiring Incidental Take Permits for State Fisheries that Interact with Threatened or Endangered Species**

State fisheries should request incidental take permits from the Fisheries Service under ESA Section 10 when the state fisheries would interact with threatened or endangered species. The Fisheries Service has not effectively enforced this requirement of the ESA. For example, as of April 5, 2021, only two North Carolina fisheries and one Georgia fishery have obtained incidental take permits under ESA Section 10.<sup>284</sup> None of these state fishery incidental take permits are for “take” of NARWs – only Atlantic sturgeon and sea turtles. A U.S. court recently required the state of Massachusetts to apply for and obtain an incidental take permit for state fisheries interacting with NARWs, so Massachusetts is now implementing stronger measures to protect NARWs in order to meet the requirements of ESA Section 10.<sup>285</sup> A larger number of state-managed fisheries likely interact with threatened or endangered species, including NARWs, and yet the Fisheries Service has not even implemented much less effectively enforced this important ESA requirement.

**E. General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce the Marine Mammal Authorization Program for Commercial Fisheries, Especially for Threatened or Endangered Species Under the MMPA**

As noted above regarding the MMPA, the Fisheries Service must ensure commercial fisheries are catalogued in the MMPA List of Fisheries. Fisheries listed in Category I or II must apply for and receive a permit from the Fisheries Service, and U.S. flagged fishing vessels must register with the Fisheries Service and display a valid authorization decal.<sup>286</sup>

If the commercial fishery interacts with threatened or endangered species, then an additional step is required: commercial fisheries must receive an Incidental Take Authorization (valid for 3 years) via a Fishery Service determination, which is subject to public notice and comment, that:

- the incidental mortality and serious injury from the commercial fishery will have a negligible impact on the species or stock;<sup>287</sup>
- a recovery plan has been developed or is being developed; and

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<sup>284</sup> NOAA Fisheries, Endangered Species Conservation – Incidental Take Permits, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/incidental-take-permits> (last updated Jan. 6, 2021).

<sup>285</sup> *Strahan v. Sec., Mass. Exec. Office of Energy and Envtl. Affairs*, 485 F.Supp.3d 76 (D. Mass. April 30, 2020).

<sup>286</sup> 16 U.S.C. § 1387(c).

<sup>287</sup> “Negligible impact” is an undefined term in the MMPA; however, MMPA regulations define “negligible impact” as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” 50 C.F.R. § 216.103. For the latest guidance of “negligible impact” determinations in the context of MMPA Section 101(a)(5)(E), see National Marine Fisheries Service, Criteria for Determining Negligible Impact under MMPA Section 101(a)(5)(E) (June 17, 2020), <https://media.fisheries.noaa.gov/dam-migration/02-204-02.pdf>

- if required, a monitoring program has been established and a Take Reduction Plan is developed.<sup>288</sup>

The Fisheries Service must then publish a *separate* list of fisheries that have received Incidental Take Authorizations for the take of threatened or endangered species. The Fisheries Service has utterly failed to effectively comply with, implement, or enforce these provisions of the MMPA for NARWs as well as many other threatened or endangered species.

**F. General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce Commercial Fishing Violations Under the MMPA or ESA Related to North Atlantic Right Whales**

Based on government records of civil administrative enforcement actions since March 2010, U.S. Government enforcement of commercial fishing operations in the Atlantic to protect North Atlantic right whales appears to have been completely lacking.<sup>289</sup> Not one civil administrative enforcement actions related to commercial fishing to protect NARWs is noted in these government records.<sup>290</sup> As commercial fisheries on the East Coast are operating without the incidental take authorizations for NARWs required under the MMPA and the ESA (discussed above), no takes of NARWs are allowed, but the Fisheries Service clearly admits that NARW takes are occurring as the agency is closely tracking NARW takes in conjunction with the UME.<sup>291</sup> there are many fishing gear entanglements and yet there are no enforcement actions whatsoever in the last 11 years. This complete lack of enforcement is a failure on the part of the U.S. Coast Guard and the Fisheries Service to effectively comply with, implement, and enforce commercial fishing violations under the MMPA or ESA to protect NARWs.

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As the foregoing demonstrates, the Endangered Species Act, the Marine Mammal Protection Act, the National Environmental Policy Act, and regulations promulgated under these statutes have not been effectively complied with, implemented, or enforced by the U.S. Government to protect NARWs from entanglement in commercial fisheries. Every “take” of a NARW in commercial fisheries is a violation of environmental law; yet, these violations often go unenforced by the U.S. Government.

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<sup>288</sup> 16 U.S.C. § 1371(a)(5)(E).

<sup>289</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforcement7.html> (last visited Aug. 5, 2021).

<sup>290</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforcement7.html> (last visited Aug. 5, 2021).

<sup>291</sup> National Marine Fisheries Service, *2017-2021 North Atlantic Right Whale Unusual Mortality Event*, <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event> (last updated Aug. 11, 2021).

**II. Vessel Strikes: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Vessel Strikes**

**A. General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce the Coast Guard Authorization Act, the MMPA, the ESA, and NEPA to Protect North Atlantic Right Whales from Vessel Traffic**

As the U.S. Coast Guard considers modifications to the vessel traffic strategy for areas on the Atlantic via Port Access Route Studies (PARS), it is critical that the assessment include a robust exploration of the effect of any action on migrating North Atlantic right whales. Recent notices for PARS development do not include any reference to living marine resources or protected species, such as the North Atlantic right whale, which is a clear failure to effectively comply with, implement, or enforce several environmental laws, including the Coast Guard Authorization Act, the MMPA, the ESA, and NEPA. Examples include the Port Access Route Study for the Seacoast of New Jersey, including offshore approaches to the Delaware Bay<sup>292</sup> and the Port Access Study for the Northern New York Bight.<sup>293</sup>

**B. General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce the 2008 Vessel Speed Rule Under the MMPA to Protect North Atlantic Right Whales**

Since 2008 the Fisheries Service, in coordination with the U.S. Coast Guard has required ships to limit their speeds in certain areas of the Atlantic to reduce the likelihood of deaths and serious injuries to endangered NARWs that result from vessel strikes.<sup>294</sup> The rationale behind this approach is that reduced speeds below 10 knots have been shown to reduce risk of death from vessel strike by up to 86%.<sup>295</sup>

The 2013 update to the Vessel Strike Rule removed the sunset provision, and the Fisheries Service included a requirement in the regulations for the agency to conduct a review of the efficacy of

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<sup>292</sup> U.S. Coast Guard, *Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to Delaware Bay, Delaware*, 85 Fed. Reg. 64507 (Oct. 13, 2020); see also Oceana, *Comment Letter on Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay* (Nov. 10, 2020) (attached).

<sup>293</sup> U.S. Coast Guard, *Port Access Study: Northern New York Bight – Notice of Study*, 85 Fed. Reg. 38907 (June 29, 2020); U.S. Coast Guard, *Port Access Study: Northern New York Bight – Supplemental Notice of Study*, 86 Fed. Reg. 18996 (April 12, 2021); U.S. Coast Guard, *Port Access Study: Northern New York Bight – Notice of Availability of Draft Report*, 86 Fed. Reg. 37339 (July 15, 2021); U.S. Coast Guard, *Draft Port Access Route Study: Northern New York Bight* (June 29, 2021).

<sup>294</sup> 2008 Vessel Speed Rule, 73 Fed. Reg. 60,173 (October 10, 2008),

<https://www.federalregister.gov/documents/2008/10/10/E8-24177/endangered-fish-and-wildlife-final-rule-to-implement-speed-restrictions-to-reduce-the-threat-of-ship>

<sup>295</sup> Conn PB and Silber GK (2013) Vessel speed restrictions reduce risk of collision-related mortality for North Atlantic right whales. *Ecosphere* 4: art43. doi: 10.1890/ES13-00004.1

existing regulations to minimize collisions with large whales in the U.S. Atlantic no later than January 1, 2019.<sup>296</sup> This required report was apparently completed in June 2020 and was only published for public comment in January 2021, *two years* after it was required by under the rule.<sup>297</sup>

In the NARW Vessel Speed Rule Assessment prepared by the Fisheries Service, the agency notes that vessel traffic on the U.S. East Coast is extensive and overlaps substantially with important NARW habitats.<sup>298</sup> The Fisheries Service admitted that NARW vessel speed restrictions have not been adequately heeded by vessels transiting mandatory and voluntary speed restriction zones,<sup>299</sup> nor has the government effectively enforced the speed limits as compliance rates are well below what is needed to protect NARWs.<sup>300</sup> The U.S. Government also acknowledged that the speed zones need to be modified to track changes in NARW distribution and vessel traffic patterns and that smaller vessels (less than 65 feet in length), which are not currently covered by the 2008 Vessel Speed Rule, pose a significant threat to NARWs.<sup>301</sup>

Oceana submitted extensive comments on the NARW Vessel Speed Rule Assessment on March 26, 2021.<sup>302</sup> In our comments, Oceana urged the Fisheries Service to promulgate interim, emergency regulations to immediately implement as recommendations including making any voluntary actions (e.g., compliance with Dynamic Management Areas) mandatory, immediately establishing new interim Seasonal Management Areas demonstrated to be important to NARWs (e.g., south of Nantucket/Martha’s Vineyard), extending the speed limit to at least vessels in the 40- to 65-foot range, and narrowing the blanket exemption from the Vessel Speed Rule for federal agencies.<sup>303</sup>

Oceana has completed and published analyses that shows both SMAs and DMAs are not effectively enforced and vessels routinely exceed the 10-knot speed limit. In the SMA near Block Island, RI, more than 11 % of ships were not complying with the speed restriction.<sup>304</sup> In the Block Island SMA

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<sup>296</sup> 78 Fed. Reg. 73,726 (Dec. 9, 2013).

<sup>297</sup> 50 C.F.R. § 224.105 (requiring that “no later than January 1, 2019, the National Marine Fisheries Service will publish and seek comment on a report evaluating the conservation value and economic and navigational safety impacts of this section, including any recommendations to minimize the burden of such impacts”).

<sup>298</sup> National Marine Fisheries Service, *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment* (June 2020; not publicly released until January 2021), [https://media.fisheries.noaa.gov/2021-01/FINAL\\_NARW\\_Vessel\\_Speed\\_Rule\\_Report\\_Jun\\_2020.pdf?null](https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null) [hereinafter “NARW Vessel Speed Rule Assessment”].

<sup>299</sup> NARW Vessel Speed Rule Assessment at 10-14 (noting between 63% and 85% compliance with mandatory speed limits in Seasonal Management Areas (SMAs) with cargo and pleasure vessels exhibiting the least compliance at 44% and 31%, respectively); *id.* at 14-17 (finding that only a small portion of vessels are modifying their speed to less than 10 knots to cooperate with Dynamic Management Areas (DMAs)).

<sup>300</sup> NARW Vessel Speed Rule Assessment at 10-14; *id.* at 14-17.

<sup>301</sup> NARW Vessel Speed Rule Assessment at 36-37.

<sup>302</sup> Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021) (attached).

<sup>303</sup> Oceana, *Comment Letter on Vessel Speed Rule Assessment* (Mar. 26, 2021) (attached).

<sup>304</sup> *Id.*

over the three-year study, non-compliance was steady at just under 40%.<sup>305</sup> This DMA was established in response to an aggregation of nearly 60% of all NARWs.

Oceana’s July 2021 vessel speed report demonstrates wide-spread lack of vessel compliance with SMAs and lack of cooperation with DMAs. Using Global Fishing Watch mapping platform from 2017-2020, Oceana calculated compliance in DMAs based on region rather than season. Oceana calculated the rate of non-compliance of vessels by dividing vessel Maritime Mobile Service Identity (MMSI)<sup>306</sup> data by the total number of signals sent during transit through a speed restriction zone. Oceana used data for the SMA seasons from November 2017 to July 2020. DMA data was calculated based on the same study period but adjusted based on when management areas were active. In all DMAs from 2017-2020, Oceana found only one management area where more than 50% of vessels traveled less than 10 knots. Across all DMAs, vessel non-cooperation exceeded nearly 50% during the study period, with more than 80% of vessels traveling through DMAs in the Southern States region violating speeding restrictions. SMA non-compliance ranged from 32.7% to 89.6% over all three seasons, with the SMA from Wilmington, North Carolina to Brunswick over 85% non-compliant in each season. Cargo vessels were the most consistent offenders, with non-compliance percentages ranging between 46% and 50%. Oceana’s analysis clearly demonstrates that speeding vessels are an imminent, continued threat to the North Atlantic right whale.<sup>307</sup> Oceana’s report recommends that the Fisheries Service and U.S. Coast Guard update the outdated and ineffective 2008 Vessel Speed Rule as follows:

- Expand and establish new SMAs;
- Make compliance with DMAs mandatory and require compliance in all reactive speed zones;
- Expand the Vessel Speed Rule to include vessels under 65 feet in length;
- Expand AIS requirements to include vessels under 65 feet in length and require continuous use of AIS;
- Improve compliance and enforcement of the mandatory speed limit; and
- Narrow the federal agencies’ exemptions.<sup>308</sup>

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<sup>305</sup> Oceana, *Oceana Exposes Ships Ignoring Voluntary Speed Zone Designed to Protect Endangered Right Whales*, (March 20, 2020), <https://usa.oceana.org/press-releases/oceana-exposes-ships-ignoring-voluntary-speed-zone-designed-protect-endangered-right>

<sup>306</sup> MMSI data provides the location, speed, class, length, flag state, timestamp, and date based on terrestrial and satellite sources.

<sup>307</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

<sup>308</sup> Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 21, 2021), [https://usa.oceana.org/sites/default/files/4046/narw-21-0002\\_narw\\_ship\\_speed\\_compliance\\_report\\_m1\\_digital\\_singlepages\\_doi\\_web.pdf](https://usa.oceana.org/sites/default/files/4046/narw-21-0002_narw_ship_speed_compliance_report_m1_digital_singlepages_doi_web.pdf)

As noted above, scientists began reporting NARW distributions shifts in 2011.<sup>309</sup> *More than 10 years later*, the Fisheries Service has *still* not updated the 2008 Vessel Speed Rule to account for the shifts in NARW location and aggregations due to warming waters and the shift of its prey species. Despite admissions and acknowledgements in the NARW Vessel Speed Rule Assessment of the shortcomings in compliance, cooperation, and enforcement of the 2008 Vessel Speed Rule, the Fisheries Service has recently stated that there are no plans for regulatory action to reduce the risk of vessel strikes.<sup>310</sup> To quote the Fisheries Service spokesperson: “Reducing the risk of vessel strikes to right whales remains an agency priority, but we have no set timeline for regulatory action at this time.”<sup>311</sup> In light of the existential crisis that NARWs face, Oceana maintains that the relevant U.S. Government federal agencies and sub-agencies or offices have failed to effectively comply with, implement or enforce environmental laws to protect NARWs from vessel strikes.

**C. General Failure of the U.S. Government to Effectively Comply with, Implement, or Enforce Vessel Speed Violations Under the MMPA or ESA To Protect North Atlantic Right Whales**

Based on government records of civil administrative enforcement actions since March 2010, U.S. Government enforcement of the 2008 Vessel Speed Rule in the Atlantic to protect North Atlantic right whales has been lacking at best. Over the past 11 years, civil penalty records indicate that, during multiple timeframes, there were apparently no *new* government enforcement actions:

- January-June 2020
- July-December 2018
- July-December 2017
- 2016 – no government enforcement actions
  - July-December 2016
  - January-June 2016
- July-December 2015
- January-June 2011
- March-July 2010

With the exception of 2013 and 2014, with 13 and 17 enforcement actions respectively, the U.S. Government – collectively, the U.S. Coast Guard and the Fisheries Service have prosecuted less than

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<sup>309</sup> Erin M. Oleson et al., *NOAA Technical Memorandum NMFS-OPR-64 - North Atlantic Right Whale Monitoring and Surveillance: Report and Recommendations of the National Marine Fisheries Service’s Expert Working Group* (June 2020).

<sup>310</sup> Brian Dabbs, *Offshore-wind plans spark conservation pushback*, National Journal (April 12, 2021) (on file with Oceana) (noting that NOAA spokeswoman, Kate Goggin, stated: “Reducing the risk of vessel strikes to right whales remains an agency priority, but we have no set timeline for regulatory action at this time.”).

<sup>311</sup> Brian Dabbs, *Offshore-wind plans spark conservation pushback*, National Journal (April 12, 2021) (on file with Oceana) (noting that NOAA spokeswoman, Kate Goggin, stated: “Reducing the risk of vessel strikes to right whales remains an agency priority, but we have no set timeline for regulatory action at this time.”).

10 civil administrative enforcement actions in any year since 2010. Shockingly, there were no such civil administrative enforcement actions whatsoever in 2016.<sup>312</sup>

In terms of deterrence through penalty amounts, under current federal laws, speed violations in a mandatory speed zone can result in a civil penalty of up to approximately \$54,000 for each violation, and criminal penalties potentially up to \$200,000, imprisonment for up to a year, or both, depending on the violations.<sup>313</sup> Based on government records of civil administrative enforcement actions since March 2010, the highest civil penalties that vessel owners or operators have been charged in relation to a violation of the 2008 Vessel Speed Rule to protect North Atlantic right whale includes a recent settlement in 2021 for \$288,000. Prior to this, the highest settlement amount for a violation of the vessel speed rule was \$124,200 in 2013. Generally, however, the very few civil administrative penalties charged are less than \$20,000.<sup>314</sup> This lack of effective enforcement is a failure on the part of the U.S. Coast Guard and the Fisheries Service to effectively comply with, implement, and enforce commercial fishing violations under the MMPA or ESA to protect NARWs.

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Based on the level of compliance and cooperation with important conservation laws, including the Endangered Species Act, the Marine Mammal Protection Act, the Coast Guard Authorization Act, the National Environmental Policy Act, and regulations promulgated under these statutes, the U.S. Government has failed to effectively comply with, implement, or enforce environmental laws and regulations to protect NARWs from vessel strikes.

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<sup>312</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforce-office7.html> (last visited Aug. 5, 2021).

<sup>313</sup> 16 U.S.C. § 1540(a)(1), as updated by 15 C.F.R. § 6.3(14) (Jan. 15, 2021); 16 U.S.C. § 1375(a)(1), as amended by 15 C.F.R. § 6.4(11) (Jan. 15, 2021); 16 U.S.C. § 1540(b)(1); 16 U.S.C. § 1375(b), as amended by 18 U.S.C. § 3571(b)(5) (noting that Class A misdemeanor for individuals that does not result in death is capped at \$100,000 fine). Violations of the Endangered Species Act and Marine Mammal Protection Act, because they each carry maximum terms of imprisonment of one year, are class A misdemeanors. 18 U.S.C. § 3559(a)(6) (defining a Class A misdemeanor). If an individual is convicted of criminal violations of both the ESA and the MMPA, then the two amounts can be combined for a maximum criminal penalty of \$200,000. 18 U.S.C. § 3571(b).

<sup>314</sup> NOAA Office of General Counsel, *Enforcement Charging Information*, <https://www.gc.noaa.gov/enforce-office7.html> (last visited Aug. 5, 2021).



**III. Additional Threats to North Atlantic Right Whales: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Additional Threats – Climate Change, Ocean Noise, and Offshore Energy Development**

**A. Climate Change: U.S. Government’s Failure to Effectively Comply with, Implement or Enforce Environmental Laws to Protect North Atlantic Right Whales from the Impacts of Climate Change**

The U.S. Government has delayed action to mitigate climate change far too long under leadership that has either failed to address or worse yet, actively denied the reality of climate change – to the detriment of all life on the planet, including NARWs. Immediate action is needed to curb ocean warming that has prompted, since at least 2010, a significant shift in the distribution of zooplankton on which the NARWs depend for food.<sup>315</sup> As the Intergovernmental Panel on Climate Change’s recent Sixth Assessment Report makes abundantly clear, human activities are responsible for climate change impacts, including the warming, acidification and rise of our oceans – to the detriment of marines species and coastal communities.<sup>316</sup> The U.S. Government must take action immediately to mitigate as well as to adapt to climate change, including for the benefit of NARWs.<sup>317</sup>

**B. Ocean Noise: U.S. Government’s Failure to Effectively Comply with, Implement or Enforce Environmental Laws to Protect North Atlantic Right Whales from Ocean Noise (e.g., Seismic Airgun Blasting for Offshore Oil and Gas Exploration, Vessel Activity)**

As to ocean noise, in November 2018, *two years after* the U.S. Government recognized the dire straits of NARWs, the Fisheries Service granted incidental harassment authorizations to five survey companies under the MMPA for seismic airgun blasting to explore for offshore oil and gas in the migratory waterways and near the critical habitat of NARWs in the Atlantic.<sup>318</sup> Seismic surveying was only thwarted due to the efforts of Oceana and other environmental NGOs taking action both in the court of law and in the court of public opinion to stop the U.S. Government from moving forward with permits.<sup>319</sup> Issuance of the incidental harassment authorizations in areas in/around key NARW critical habitat and migratory pathways not only demonstrates the Fisheries Service’s failure

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<sup>315</sup> Erin M. Oleson et al., *NOAA Technical Memorandum NMFS-OPR-64 - North Atlantic Right Whale Monitoring and Surveillance: Report and Recommendations of the National Marine Fisheries Service’s Expert Working Group* (June 2020).

<sup>316</sup> IPCC, *Sixth Assessment Report – Summary for Policy Makers*, <https://www.ipcc.ch/report/ar6/wg1/#SPM>

<sup>317</sup> IPCC, *Sixth Assessment Report – Summary for Policy Makers*, <https://www.ipcc.ch/report/ar6/wg1/#SPM>

<sup>318</sup> NOAA Fisheries, *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean*. National Oceanic and Atmospheric Administration, 83 Fed. Reg. 63,268 (Nov. 30, 2018), <https://www.federalregister.gov/documents/2018/12/07/2018-26460/takes-of-marine-mammals-incident-to-specified-activities-taking-marine-mammals-incident-to>

<sup>319</sup> *South Carolina Coastal Conservation League et al. v. National Marine Fisheries Service*, Memorandum in Support of Plaintiff’s Motion for a Preliminary Injunction (Feb. 20, 2019).

to effectively comply with, implement, or enforce environmental laws to protect NARWs from ocean noise but also shows the nature of this “industry captured” agency’s willingness to put the economic interests of industry over protections for endangered species – in contradiction of the statutory requirements. For example, the ESA was enacted to “halt and reverse the trend toward species extinction, whatever the cost.”<sup>320</sup>

High levels of vessel activity can also cause noise in the ocean that is disruptive and/or stressful to NARWs. Relevant U.S. Government agencies and sub-agencies or offices (e.g., Fisheries Service, U.S. Coast Guard, and BOEM) should closely regulate high levels of vessel activity that create ocean noise in areas near NARW critical habitat, especially calving areas in the Southeast – where mother-calf pairs need quieter waters to communicate. This lack of oversight is yet another example of the U.S. Government’s failure to effectively comply with, implement, or enforce environmental laws.<sup>321</sup>

**C. Offshore Energy Development: U.S. Government’s Failure to Effectively Comply with, Implement, or Enforce Environmental Laws to Protect North Atlantic Right Whales from Offshore Energy Development**

Offshore energy development in the U.S. Atlantic poses risks to the critically endangered North Atlantic right whale. Under the Trump Administration, the U.S. Government not only permitted seismic airgun blasting, which Oceana and our coalition partners successfully stopped, but also proposed offshore oil and gas leasing in the Atlantic in the five-year leasing plan. Such proposals pose unacceptable risks to the species, and do not strike the appropriate balance required to effectively comply with, implement, and enforce OCSLA, much less the ESA, the MMPA, and NEPA. As offshore energy projects proceed forward in the Atlantic, diligent adherence to environmental laws and regulations along with a precautionary approach are key to avoid further decline of the NARWs from vessel strikes, entanglements, and ocean noise.

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<sup>320</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

<sup>321</sup> 16 U.S.C. § 1371(a)(5)(A); *id.* § 1371(a)(5)(D).

## CONCLUSION

As the foregoing demonstrates, relevant federal agencies within the U.S. Government are not effectively complying with, implementing or enforcing environmental laws and regulations in a timely manner to conserve and recover endangered NARWs from the primary threats of commercial fishing gear entanglement and vessel strikes as well as the added stresses of climate change, ocean noise, and offshore energy development. Considering the dire status of NARWs and the legal requirement based on best available science that less than one NARW can be killed per year to support recovery of the species, we urge the U.S. Government to *immediately and effectively* comply with, implement, and enforce environmental laws to protect NARWs.

Specifically, the U.S. Government has allowed and continues to authorize the American lobster and crab fisheries to operate in excess of PBR and without a valid BiOp or ITS despite years of acknowledged excessive mortality and serious injury of the species. These critical tools are the heart of the MMPA and ESA, respectively, and must be complied with, implemented, and enforced in a timely manner to safeguard the species.

The U.S. Government is also needlessly delaying its review of the 2008 Vessel Speed Rule in violation of the timeframe set forth in the regulations. The NARW Vessel Speed Rule Assessment was not publicly released until January 2021, and it shows that the U.S. Government is not effectively complying with, implementing, or enforcing speed limits to minimize vessel strikes of NARWs. Yet, the U.S. Government has publicly stated they have no intention of revising the rule. To comply with the USMCA requirements to effectively comply with, implement, or enforce environmental laws, the U.S. Government must revise the 2008 Vessel Speed Rule and demonstrate that improved on-the-water enforcement is effective through compliance rates approaching 100% in SMAs and cooperation rates approaching 100% in DMAs.

In relation to additional stressors to NARWs, the U.S. Government has delayed action to mitigate climate change far too long under leadership that has either failed to address or worse yet, actively denied the reality of climate change – to the detriment of all life on the planet, including NARWs. Immediate action is needed to curb ocean warming that has prompted, since at least 2010, a significant shift in the distribution of zooplankton on which the NARWs depend for food. With respect to ocean noise, on November 30, 2018, *nearly two years after* the U.S. government recognized the dire straits of NARWs and issued a UME in early 2017, the Fisheries Service authorized seismic airgun blasting to explore for offshore oil and gas in the migratory waterways and near the critical calving habitat of NARWs. Knowingly looking the other way and engaging in a years-long process to allow harmful seismic surveys – a precursor to offshore oil and gas drilling – is not only irresponsible in the face of climate change but also an utter failure to effectively comply with, implement, or enforce environmental laws, which mandate the protection of endangered marine mammals, including NARWs. As to offshore energy development, the U.S. Government must not blindly push forward with offshore energy projects to the neglect of its obligations to

effectively comply with, implement, or enforce environmental laws, especially those that are intended to protect and recover the NARWs.

In short, the U.S. Government must take *immediate* and *assertive* action to reduce or eliminate harmful vertical fishing lines and minimize vessel traffic, while reducing the additional stressors of climate change, harmful ocean noise, and impacts from the siting, construction, operation and decommissioning of offshore energy projects. The U.S. Government must promulgate, implement, and enforce interim emergency regulations that can be demonstrated to be effective in protecting NARWs.

In sharp contrast to the U.S. Government, in recent years, the Canadian Government has taken a number of necessary measures on a rapid schedule to minimize both fishing and shipping impacts to North Atlantic right whales. The U.S. Government must stop pointing fingers northward, and, instead, take responsibility and immediate action to protect NARWs in the U.S. Atlantic EEZ to avoid further hypocrisy.

Oceana notes that the U.S. Government is *required by law* to take emergency action to minimize known risks to NARWs but has refused to invoke that legal authority; meanwhile, the issues with excessive mortality, serious injury, and sublethal harm to NARWs in U.S. waters persist. If the U.S. Government continues to act in a half-hearted manner in the face of critical need to protect the endangered NARWs, while Canada is taking steps toward decisive action, the U.S. Government's lack of action can only be seen for what it is – willing delay that thwarts not only effective compliance, implementation, and enforcement of environmental law but also the requirements of the USMCA.

Oceana calls on each of you, in your official capacity, and your staff to take immediate action to address these shortcomings, which include the failure to effectively comply with, implement, or enforce the Endangered Species Act, the Marine Mammal Protection Act, the Coast Guard Authorization Act, the National Environmental Policy Act, and the Outer Continental Shelf Lands Act, and regulations promulgated under these statutes. If we do not receive a response by September 30, we will file a submission with the Secretariat of the CEC under the relevant provisions of the USMCA, and we will make publicly known that the United States is in violation of the recently revised Agreement and its environmental commitments.

Further study is an unacceptable option after so many years of U.S. Government inaction to address the well-known threats of fishing gear entanglement and vessel strikes as well as the added stressors of climate change, ocean noise, and offshore energy development. We urge you to respond by including a specific, detailed plan of action for immediate on-the-water emergency measures that will reduce risks to NARWs from all threats, but especially the long-standing threats for which viable solutions do exist – namely fishing gear entanglement and vessel strikes.

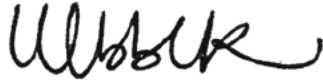
Oceana – Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters

August 18, 2021

Page 60 of 65

Thank you for your serious consideration of this matter. Oceana looks forward to receiving your response. We welcome virtual meetings with you and/or your staff to discuss this matter in greater detail. Please do not hesitate to reach out to me at the email address below.

Sincerely,



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Oceana – Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters

August 18, 2021

Page 61 of 65

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Oceana – Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters

August 18, 2021

Page 62 of 65

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Oceana – Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters

August 18, 2021

Page 63 of 65

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Oceana – Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters

August 18, 2021

Page 64 of 65

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Oceana – Notice Letter to U.S. Government re USMCA Art. 24.27 Submission on Enforcement Matters

August 18, 2021

Page 65 of 65

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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "energyreview@ios.doi.gov" <energyreview@ios.doi.gov>

**Cc:** "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Oceana Comments on Federal Offshore Oil and Gas Program

**Date:** Thu, 15 Apr 2021 21:29:54 +0000

**Attachments:** leasing\_pause\_comment\_letter.pdf; Biden\_TY\_Petition\_w\_Signatories.pdf

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Please find attached, Oceana's official comments on the Federal Offshore Oil and Gas Program in response to the Department's request for public input on Interior's comprehensive review as called for in Executive Order 14008. Additionally, a petition from more than 13,000 Oceana wavemaker supporters.

Due to size limitations our supporting materials were too large to attach but can be downloaded here:

[https://drive.google.com/drive/folders/1PSBhKhO1jC\\_zrS25ZH976hmJh20a3JPt?usp=sharing](https://drive.google.com/drive/folders/1PSBhKhO1jC_zrS25ZH976hmJh20a3JPt?usp=sharing)

Thank you—

Diane Hoskins

**Diane Hoskins** | Campaign Director



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April 15, 2021

The Honorable Deb Haaland  
Secretary of the Interior  
United States Department of the Interior  
1849 C Street NW  
Washington DC 20240

Re: Opportunity for Comment on the Review of the Federal Oil and Gas Program

Dear Secretary Haaland:

On behalf of more than 1.2 million members and supporters in the United States we applaud President Biden's bold action to halt new offshore oil and gas leasing. We urge the Bureau of Ocean Energy Management (“the Bureau”) to make these protections more permanent by not holding any proposed lease sales remaining in the 2017-2022 Outer Continental Shelf (“OCS”) Oil and Gas Leasing Program and including no new lease sales in the next leasing program. More drilling means more climate pollution that we simply cannot afford.

Climate change is already wreaking havoc on our lives and livelihoods, and it is a relief to see President Biden prioritizing solutions to the climate crisis. President Biden’s actions are a win for the health of our ocean, our economy and our climate. We look forward to working with the Biden-Harris administration to permanently move away from dirty and dangerous offshore drilling toward clean, renewable energy sources like offshore wind.

Catastrophic oil spills, like the BP Deepwater Horizon, Exxon Valdez, and Santa Barbara disasters pose unacceptable risk to coastal economies that depend upon a healthy ocean to survive. Toxic oil poisons marine wildlife, causes beach closures, and shuts down lucrative fishing areas. Permanently protecting our coasts from offshore drilling will safeguard our coastal economies from the next oil disaster.

Offshore oil drilling exacerbates the climate crisis and threatens coastal economies. Additionally, offshore oil drilling is dirty and dangerous, is unnecessary given current and future energy production, and opposition to offshore oil drilling is widespread and bipartisan. For these reasons, the Bureau should, and has the authority to, not hold any of the remaining lease sales proposed in the 2017-2022 OCS Oil and Gas Leasing Program and include no new lease sales in the next leasing program, once finalized.

## **DISCUSSION**

### **Offshore drilling fuels the climate crisis and threatens the economy.**

The United States must transition away from harmful fossil fuels and towards responsibly sited and operated renewable energy—like offshore wind power—to supply our nation’s energy needs and mitigate climate change. The risks posed to coastal communities and fragile marine ecosystems in the United States are too great, especially when the benefits of conserving these

areas are fully considered. Moreover, with current production of oil and gas in the United States and the vast volume of previously sold, not yet used leases, additional offshore leasing is unnecessary.

A recent [Oceana analysis](https://usa.oceana.org/sites/default/files/2021/01/27/final_climate_economy_fact_sheet_m1_doi.pdf) found ending new leasing for offshore oil and gas could prevent over 19 billion tons of greenhouse gas, which is equivalent to taking every car in the nation off the road for 15 years – or as much as almost three times the entire U.S annual greenhouse gas emissions.<sup>1</sup> Greenhouse gas pollution drives climate change, which harms human health and our ocean.<sup>2</sup> Once oil is extracted from our ocean, it is transported, refined and burned. Oil production is energy intensive and generates greenhouse gas pollutants like carbon dioxide and methane during every step of the process from exploration to consumption.<sup>3</sup> Ending new drilling can prevent these associated emissions.

Climate change is already impacting everyone, including those who live along the coasts. As a result of increasingly intense and extreme weather, dangerous storm surges push farther inland, expanding their deadly and costly impact.<sup>4</sup> Greenhouse gas emissions cause costly damages. Permanently protecting our coasts from new oil development can prevent over \$720 billion in damages to people, property and the environment.<sup>5</sup> This would be like losing the entire economy of a major city, like Washington D.C., Boston or Atlanta, for a year.<sup>6</sup>

Additionally, Oceana’s analysis found the U.S. clean coast economy supports around 3.3 million American jobs and \$250 billion in GDP through activities like tourism, recreation and fishing.<sup>7</sup> In contrast, drilling for oil and gas relies on a finite resource. When the oil runs out, so do the jobs, leaving behind a legacy of coastal industrialization and pollution. Offshore drilling pollutes our coasts through normal operations and leads to hundreds of spills every year, threatening coastal communities that rely on clean air and water.<sup>8</sup> Permanent protection from offshore drilling will safeguard our clean coast economies.

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<sup>1</sup> OCEANA, OFFSHORE DRILLING FUELS THE CLIMATE CRISIS AND THREATENS THE ECONOMY (Jan. 2021), [https://usa.oceana.org/sites/default/files/2021/01/27/final\\_climate\\_economy\\_fact\\_sheet\\_m1\\_doi.pdf](https://usa.oceana.org/sites/default/files/2021/01/27/final_climate_economy_fact_sheet_m1_doi.pdf).

<sup>2</sup> IPCC (2014) Climate change 2014: impacts, adaptation, and vulnerability: Working Group II contribution to the fifth assessment report of the Intergovernmental Panel on Climate Change. New York, NY: Cambridge University Press

<sup>3</sup> DOI (2016) OCS Oil and Natural Gas: Potential Lifecycle Greenhouse Gas Emissions and Social Cost of Carbon. Available: [https://www.boem.gov/sites/default/files/oil-and-gas-energyprogram/Leasing/Five-Year-Program/2012-2017/BOEMOceanInfo/ocs\\_oil\\_and\\_natural\\_gas.pdf](https://www.boem.gov/sites/default/files/oil-and-gas-energyprogram/Leasing/Five-Year-Program/2012-2017/BOEMOceanInfo/ocs_oil_and_natural_gas.pdf). Accessed Oct 28, 2020.

<sup>4</sup> IPCC (2019) Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson- Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, M. Nicolai, A. Okem, J. Petzold, B. Rama, N. Weyer (eds.)]. Available: [https://report.ipcc.ch/srocc/pdf/SROCC\\_FinalDraft\\_FullReport.pdf](https://report.ipcc.ch/srocc/pdf/SROCC_FinalDraft_FullReport.pdf). Accessed Dec 10, 2019.

<sup>5</sup> TBD Economics (2021) Producing Oil and Gas on the U.S. Outer Continental Shelf: CO<sub>2</sub>e Emissions and the Social Cost of Carbon. [https://usa.oceana.org/sites/default/files/4046/final\\_ghg\\_emissions\\_and\\_scc\\_from\\_ocs\\_development\\_tbd\\_economic\\_s\\_final012221.pdf](https://usa.oceana.org/sites/default/files/4046/final_ghg_emissions_and_scc_from_ocs_development_tbd_economic_s_final012221.pdf)

<sup>6</sup> Bureau of Economic Analysis, 2020, Regional Data. <https://www.bea.gov/>

<sup>7</sup> *Oceana, Offshore Drilling Fuels the Climate Crisis and Threatens the Economy (Jan. 2021)*, [https://usa.oceana.org/sites/default/files/2021/01/27/final\\_climate\\_economy\\_fact\\_sheet\\_m1\\_doi.pdf](https://usa.oceana.org/sites/default/files/2021/01/27/final_climate_economy_fact_sheet_m1_doi.pdf).

<sup>8</sup> BSEE (2019) Aggregated Data of OCS Oil and Gas Industry Activities (e.g. production and drilling levels), Work Hours, Incidents and Compliance: 2008-2018. Available: <https://www.bsee.gov/sites/bsee.gov/files/summary-tables-2018-updated-8-16-2019.pdf>. Accessed Mar 4, 2020.; Fleishman L and Franklin M (2017) Fumes Across the Fence-Line: The Health Impacts of Air Pollution from Oil & Gas Facilities on African American Communities. NAACP

Tourism, recreation, and fishing are major drivers of coastal economies, but oil disasters threaten these businesses. The BP *Deepwater Horizon* blowout reduced tourism along the Gulf Coast from Texas to Florida during the spill and for months afterward.<sup>9</sup> As oil spread across the Gulf Coast, so did hotel cancellations. Fisheries closed and demand for Gulf seafood plummeted. The loss to the seafood industry is estimated at nearly \$1 billion.<sup>10</sup> Consumer confidence in Gulf seafood dropped as consumers were less willing to purchase Gulf shrimp, crabs and oysters due to health concerns.<sup>11</sup> Our abundant ocean resources bring in consistent revenue year after year. Ignoring the realities of past disasters puts marine life, local communities and coastal economies at risk.

### **Offshore drilling is dirty and dangerous.**

There are risks at all stages of the offshore oil and gas development process, each of which would wreak havoc on coastal and marine environments and local ocean-based economies. First, during the exploration phase, high-intensity geophysical seismic surveys, drilling operations, and increased ship traffic threaten marine life, including endangered, threatened and other protected species. These activities may also interfere with commercial and recreational fishing. Second, expanding offshore drilling would cause many of United States' coastlines to become overrun with miles of pipelines, refineries and smokestacks. Third, introducing offshore oil and gas drilling into these planning areas would increase pollution levels in neighboring air, water, and land. Fourth, exploration often results in exploratory drilling, and exploratory wells can fail and result in oil leaks and spills. The dangers of exploration are evident from the BP *Deepwater Horizon* disaster, which involved the blowout of an exploratory well. Finally, adding new areas for offshore oil and gas development would affect the global climate and exacerbate ocean acidification.

### **Expanded offshore drilling is unnecessary given current and future energy production.**

In 2019 the United States exported more oil and gas than we imported, meaning we already have a surplus of energy.<sup>12</sup> Further, the oil and gas industry has accumulated more than 12 million acres of offshore public waters in leases.<sup>13</sup> Of that area, more than 9.3 million acres are not

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and Clean Air Task Force. Available: [https://www.naACP.org/wp-content/uploads/2017/11/Fumes-Across-the-FenceLine\\_NAACP-and-CATF-Study.pdf](https://www.naACP.org/wp-content/uploads/2017/11/Fumes-Across-the-FenceLine_NAACP-and-CATF-Study.pdf). Accessed Jan 29, 2020.

<sup>9</sup> Travel Market Report (2010) Gulf Oil Spill Fueling Cancellations. In: News. Available: <http://www.travelmarketreport.com/articles/Gulf-Oil-Spill-Fueling-Cancellations>

<sup>10</sup> BOEM (2016) Carroll, Michael; Gentner, Brad; Larkin, Sherry; Quigley, Kate; Perlot, Nicole, et al. An Analysis of the Impacts of the Deepwater Horizon Oil Spill on the Gulf of Mexico Seafood Industry. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2016-020.

<sup>11</sup> *Id.*

<sup>12</sup> EIA, *U.S. energy facts - imports and exports* (2020), <https://www.eia.gov/energyexplained/us-energy-facts/imports-and-exports.php>.

<sup>13</sup> *FACT SHEET: President Biden to Take Action to Uphold Commitment to Restore Balance on Public Lands and Waters, Invest in Clean Energy Future*, U.S. DEPARTMENT OF THE INTERIOR (Jan. 27, 2021), <https://www.doi.gov/pressreleases/fact-sheet-president-biden-take-action-uphold-commitment-restore-balance-public-lands>.

currently productive, and between onshore and offshore lands, the government has issued 7,700 permits to drill that are unused.<sup>14</sup>

In addition, significant domestic and international efforts to reduce the consumption of oil and gas could lessen any economic benefits from oil and gas development in the U.S. OCS. With almost 200 nations making commitments under the Paris Agreement, demand for fossil fuels may decrease as countries put greater emphasis on research and development of renewable energy resources.<sup>15</sup> For example, the vast offshore wind energy potential could provide a substantial benefit to the domestic energy market, especially as many states increasingly advance goals to that end.<sup>16</sup> With the combination of potential oversupply and lower fossil fuel demand, there is no need to open up additional areas of our ocean to offshore exploration and development.

### **The opposition to expanded offshore drilling is widespread and bipartisan.**

Thousands of Oceana members and supporters submitted individual comments opposing the inclusion of new lease sales in the Atlantic, Pacific and Arctic Oceans, as well as the Eastern Gulf of Mexico in the 2019-2024 Draft Proposed Program. Opposition and concern over offshore drilling activities nationwide includes:

- Every East and West Coast governor, including Florida, Georgia, South Carolina, North Carolina, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine, California, Oregon and Washington
- More than 390 local municipalities
- Over 2,300 local, state and federal bipartisan officials
- East and West Coast alliances representing over 56,000 businesses
- Pacific, New England, South Atlantic and Mid-Atlantic fishery management councils
- More than 120 [scientists](#)
- More than 80 former [military leaders](#)
- Commercial and recreational fishing interests such as Southeastern Fisheries Association, Snook and Gamefish Foundation, Fisheries Survival Fund, Billfish Foundation and International Game Fish Association
- California Coastal Commission, California Fish and Game Commission and California State Lands Commission
- Department of Defense, NASA, U.S. Air Force and Florida Defense Support Task Force

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<sup>14</sup> *Id.*

<sup>15</sup> World Resources Institute, *FAQs about how the Paris Agreement Enters into Force*, <http://www.wri.org/faqs-about-how-paris-agreement-enters-force> (last visited Feb. 16, 2018).

<sup>16</sup> *BOEM Renewable Energy Lease and Grant Information*, BUREAU OF OCEAN ENERGY MANAGEMENT, <https://www.boem.gov/renewable-energy/lease-and-grant-information> (last visited March 31, 2021).

**The Bureau has the authority to, and should, issue a future OCS Oil and Gas Leasing Program with no scheduled lease sales and not hold any remaining lease sales proposed under the 2017-2022 OCS Oil and Gas Leasing Program.**

The Outer Continental Shelf Lands Act (“OCSLA”) gives the Bureau significant discretion to determine how much leasing activity to include in an OCS Oil and Gas Leasing Program and deciding whether to hold lease sales.<sup>17</sup> OCSLA requires the Secretary of the Interior, acting through the Bureau,<sup>18</sup> to prepare a five-year OCS Oil and Gas Leasing Program.<sup>19</sup> OCSLA states that the leasing program “shall consist of a schedule of proposed lease sales indicating, as precisely as possible, the size, timing, and location of leasing activity which [the Secretary] determines will best meet national energy needs for the five-year period following its approval or reapproval.”<sup>20</sup>

Additionally, the leasing program must be prepared in accordance with four principles. First, management of the OCS must be conducted in a way that “considers economic, social, and environmental values . . . and the potential impact of oil and gas exploration on other resource values of the [OCS] and the marine, coastal, and human environments.”<sup>21</sup> Second, when developing the leasing program, the Secretary of the Interior must base the timing and location of exploration, development, and production of oil and gas on a consideration of eight factors, including “an equitable sharing of developmental benefits and environmental risks among the various regions” and “relevant environmental and predictive information for different areas of the [OCS].”<sup>22</sup> Third, the selection of the timing and location of leasing must, to the maximum extent practicable, be made in a way that obtains “a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>23</sup> Finally, the leasing activities must assure that the Federal government receives fair market value for the lands that are leased and the rights that are conveyed.<sup>24</sup>

The climate crisis demands swift action to dramatically reduce further fossil fuel consumption. OCSLA’s language supports the Bureau not including any lease sales in future OCS Oil and Gas Leasing Program so long as the Bureau determines that scheduling no lease sales best meets the energy needs of the nation and properly addresses the four principles. As outlined in this letter, current OCS production under existing leases and permits, combined with the increased development of renewable energy sources, exceeds the nation’s energy needs, and the consideration of the four principles balances towards not scheduling any future lease sales.

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<sup>17</sup> For a more detailed analysis of the Bureau’s legal authority, refer to the comment letter submitted by the Natural Resources Defense Council and Earthjustice titled “Recommendation for Preparation of a Null Schedule Five-Year OCS Oil and Gas Leasing Program and Cancellation of Proposed Lease Sales on the Current Program.”

<sup>18</sup> In 2010, the Secretary of the Interior delegated authority for planning and leasing under OCSLA to the Bureau. Department of Interior Sec. Order No. 3299 (May 19, 2010).

<sup>19</sup> 43 U.S.C. § 1344(a).

<sup>20</sup> *Id.*

<sup>21</sup> 43 U.S.C. § 1344(a)(1).

<sup>22</sup> 43 U.S.C. § 1344(a)(2).

<sup>23</sup> 43 U.S.C. § 1344(a)(3).

<sup>24</sup> 43 U.S.C. § 1344(a)(4).



In order to create “an equitable sharing of developmental benefits and environmental risks among the various regions,” as required by OCSLA,<sup>25</sup> the Bureau must consider the ecological characteristics, environmental information, other uses, energy markets, environmental sensitivity, and marine productivity of each area. After considering these factors, the Bureau must design a lease sale schedule that achieves “a proper balance,” “to the maximum extent possible,” between the potential for oil and gas production and the potential for environmental damage and adverse impacts on the coastal zone.<sup>26</sup>

To create a proper balance, the Bureau must first create an accurate assessment of the economic benefit of oil and gas development, including (1) the current state of the oil and gas, (2) the level of oil and gas reserves available in the planning areas, and (3) the potential for delays in infrastructure development. In addition to an accurate assessment of potential benefit, the Bureau must also conduct a thorough evaluation of the potential for damage to coastal and other economies that depend on a healthy ocean ecosystem, including (1) the current value of sectors that depend on a healthy ocean ecosystem, (2) the broader values associated with a healthy ocean ecosystem not captured in standard measures of economic activities, and (3) the level of risk involved in offshore oil and gas development and the likelihood of environmental damage. If the Bureau creates a proper balance as required by OCSLA, we believe the agency would ultimately conclude that the next OCS Oil and Gas Leasing Program should include no new lease sales.

The Bureau also has the discretion to not hold the four proposed lease sales remaining under the 2017-2022 OCS Oil and Gas Leasing Program. OCSLA does not mandate that the Bureau hold lease sales proposed in a leasing program, and in the past the Bureau has refrained from holding some lease sales.<sup>27</sup> In the 2017-2022 OCS Oil and Gas Leasing Program, the Bureau agreed that it had the authority to not hold proposed lease sales.<sup>28</sup> The Bureau has the authority to not hold lease sales in the 2017-2022 Oil and Gas Leasing Program and should do so for the reasons set forth in this letter.

## CONCLUSION

As discussed in this letter, offshore oil drilling is devastating for the environment, bad for the economy, and unnecessary due to current and future energy production. For these reasons opposition to offshore oil drilling has become widespread and bipartisan across the country. The Bureau has the authority to, and should, take permanent action to protect our coast from the dangers of offshore drilling by not holding any of the remaining lease sales proposed in the 2017-2022 OCS Oil and Gas Leasing Program and including no new lease sales in the next leasing program. We believe that properly following the requirements of OCSLA and considering all opposition to oil and gas drilling will lead to the conclusion to no longer hold lease sales for oil and gas on the OCS.

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<sup>25</sup> 43 U.S.C. § 1344(a)(2).

<sup>26</sup> 43 U.S.C. § 1344(a)(3).

<sup>27</sup> Chukchi Sea, Lease Sale 237, 80 Fed. Reg. 74796 (Nov. 30, 2015); Beaufort Sea, Lease Sale 242, 80 Fed. Reg. 74797 (Nov. 30, 2015); Cancellation of Oil and Gas Lease Sale 219 in the Cook Inlet Planning Area on the Outer Continental Shelf (OCS), 76 Fed. Reg. 11506 (March 2, 2011).

<sup>28</sup> BOEM, *2017-2022 Outer Continental Shelf Oil and Gas Leasing Proposed Final Program* (Nov. 2016), <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Five-Year-Program/2017-2022/2017-2022-OCS-Oil-and-Gas-Leasing-PFP.pdf>.

Oceana appreciates the opportunity to comment and thanks you for your time. We will continue to be engaged in this process.

Sincerely,

Diane Hoskins

Campaign Director, Oceana

April 15, 2021

Dear President Biden:

Thank you for pausing all new lease sales which enable offshore oil and gas polluters. This bold action is a vital step in tackling the climate crisis and creating thousands of new, clean energy jobs that will help power America into the future. Your executive order will help protect our coasts from the dangers of offshore oil drilling and the devastation of climate change, all while paving the way for thousands of good paying American jobs in clean, renewable energy.

As you know, our climate is in crisis, with sea levels rising and devastating extreme weather accelerating. Ending new leasing for offshore oil and gas is critical to avoiding even worse impacts from climate change. In fact, if made permanent, the policy could prevent over 19 billion tons of greenhouse gas emissions and more than \$720 billion in damage to people, property and the environment. Our economy and our families cannot afford more drilling and its associated climate pollution.

And the benefits do not stop there, your action not only helps deliver on your commitment to address climate change but also protects the roughly 3.3 million American jobs and \$250 billion in GDP through activities like tourism, recreation and fishing.

Thank you, President Biden, for taking this critical step to pause all new offshore drilling. With permanent offshore drilling protections, instead of worrying about oil spills ruining our coastal economy we can look forward to new, good paying jobs from clean energy, like offshore wind and solar.

Sincerely,

**13,735 Oceana Wavemakers**

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| Gary Gover          | Fairhope, AL       | N Burrows                | Anchorage, AK    |
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| Tania Malven           | Tucson, AZ         | Pinkyjain Pan         | Tucson, AZ            |
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| Michael Marek          | Phoenix, AZ        | Ronald Pelech         | Tucson, AZ            |
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| Carmen Miller          | Phoenix, AZ        | Mary Puglia           | Gold CaNew Yorkon, AZ |
| Gerry Milliken         | Cottonwood, AZ     | Cynthia R             | Chandler, AZ          |
| Carla Morin            | Peoria, AZ         | Robert Racine         | Mesa, AZ              |
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| Lynn Murphy            | Tucson, AZ         | L Regn                | Scottsdale, AZ        |
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| Anne Barker         | San Rafael, CA      | Gail Benda          | Dana Point, CA          |
| Jim Barker          | San Jose, CA        | Hilarey Benda       | Sherman Oaks, CA        |
| Scott Barlow        | SunNew Yorkvale, CA | Matt Bender         | Cardiff By The Sea, CA  |
| Corey Barnes        | San Rafael, CA      | Doug Bender         | Redondo Beach, CA       |
| Judith Barnett      | Tarzana, CA         | Barb Benedict       | Martinez, CA            |
| S. Barnhart         | Berkeley, CA        | Larry Benedict      | Los Angeles, CA         |
| Cora Baron          | Forest Knolls, CA   | Jeanne Benioff      | Redwood City, CA        |
| Maddie Barrera      | upland, CA          | Elaine Benjamin     | Alpine, CA              |
| Keiko Barrett       | National City, CA   | Brian Benjamin      | Alpine, CA              |
| Susie Barrett       | San Mateo, CA       | Chad Bennett        | Redondo Beach, CA       |
| Tim Barrington      | San Jose, CA        | Annette Benton      | Pittsburg, CA           |
| Marion Barry        | Loomis, CA          | Suzanne Benton      | Toluca Lake, CA         |
| Nancy Bast          | Morro Bay, CA       | Cheryl Berg         | Carmichael, CA          |
| Ron Batchelor       | Chula Vista, CA     | Karen Berger        | Montrose, CA            |
| Janis Bates         | Sherman Oaks, CA    | Lynne Bergeron      | Sierra Madre, CA        |
| Larry Bathgate      | Mill Valley, CA     | Colleen Bergh       | Santa Ana, CA           |
| Henning Bauer       | San Francisco, CA   | Lynda Berkhan       | San Clemente, CA        |
| Miriam Baum         | Alta Loma, CA       | Julia Berkowitz     | Los Angeles, CA         |
| Gary Baxel          | Cathedral City, CA  | Diane Berliner      | Los Angeles, CA         |
| Susannah Baxendale  | Culver City, CA     | Rainelee Bernardino | Murrieta, CA            |
| Judith Bayer        | San Diego, CA       | Adam Bernstein      | Los Angeles, CA         |
| Jon Bazinet         | Vallejo, CA         | Hillary Bernstein   | West Hollywood, CA      |
| Heidi Jo Bean       | Corona, CA          | David Berry         | Los Angeles, CA         |
| Jackie Bear         | Los Angeles, CA     | Louise Bianco       | Tarzana, CA             |
| George Beasley      | Visalia, CA         | Claude Bibeau       | Rancho Cucamonga, CA    |
| Suzanne Beaton      | Beverly Hills, CA   | Henry Biggins       | Ukiah, CA               |
| Evan Beattie        | Los Angeles, CA     | Valerie Bilbo       | Pauma Valley, CA        |
| Catherine Beauchamp | Pasadena, CA        | Benjamin Billhardt  | Fontana, CA             |
| Paul Bechtel        | Redlands, CA        | Barbara Bills       | Placerville, CA         |
| Rachel Beck         | Oakland, CA         | Petra Bingham       | Arcata, CA              |
| Carol Becker        | Sherman Oaks, CA    | Vicki Bingo         | Los Angeles, CA         |
| Pauline Bedford     | Joshua Tree, CA     | Kevin Bissonnette   | San Clemente, CA        |
| Wil Bee             | Ventura, CA         | Grant Bixby         | Newport Beach, CA       |
| Victoria Behar      | Thousand Oaks, CA   | Jennifer Black      | Auburn, CA              |
| Heidi Behnke        | Spring Valley, CA   | Susan Blain         | San Diego, CA           |
| Wendy R Behrbaum    | Santa Rosa, CA      | Elke Blair          | Folsom, CA              |
| Rich Behymer        | Pasadena, CA        | Meike Blanc         | Beverly Hills, CA       |
| Susan Beil          | Camarillo, CA       | Anne Blandin        | Calexico, CA            |

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| Bettinell Vicky Blevins | Joshua Tree, CA   | Michael Braude          | Menlo Park, CA        |
| Gail Blumberg           | Santa Cruz, CA    | Nicole Braun            | San Diego, CA         |
| Harry Blumenthal        | Eureka, CA        | Lena Bravo              | Pleasanton, CA        |
| Cheryl Bly              | Moorpark, CA      | Tina Brenza             | Goleta, CA            |
| Frances Blythe          | Dixon, CA         | Ga Brewer               | Sherman Oaks, CA      |
| Steve Bock              | Santa Cruz, CA    | William Briggs          | Hermosa Beach, CA     |
| Jerilyn Bock            | Santa Cruz, CA    | Susan Briggs            | Santa Rosa, CA        |
| Trina Bodine            | Cloverdale, CA    | Michael Brinegan        | San Diego, CA         |
| Lelia Bogard            | Coarsegold, CA    | Susan Brisby            | Lancaster, CA         |
| Yinka Bogdan            | Mountain View, CA | Joanne Britton          | San Diego, CA         |
| Kris Boggis             | San Diego, CA     | Blaise Brockman         | Arcadia, CA           |
| Constantine Bogios      | Walnut Creek, CA  | Kerstin Maria Bromander | Concord, CA           |
| Nick Bogle              | Bolinas, CA       | Jennifer Brooks         | Los Altos, CA         |
| Mary Bohn               | La Jolla, CA      | Mary Brooks             | Frazier Park, CA      |
| Kathie Boley            | Three Rivers, CA  | Heather Brophy          | Santa Barbara, CA     |
| Debbie Bolsky           | Santa Monica, CA  | Jacqueline Broulard     | Calabasas, CA         |
| Kate Bolton             | Petaluma, CA      | Norman Broussard        | Elk Grove, CA         |
| Randall Boltz           | San Diego, CA     | Terri Brown             | Los Angeles, CA       |
| Maryann Bomarito        | Marina, CA        | Damon Brown             | Los Angeles, CA       |
| Ernestine Bonn          | San Diego, CA     | Meg Brown               | Maricopa, CA          |
| Andrea Bonnett          | Altadena, CA      | Barbara Broz            | Sherman Oaks, CA      |
| Jim Bonning             | San Jacinto, CA   | Melissa Bryan           | Half Moon Bay, CA     |
| Michael Bordenave       | Fresno, CA        | Theresa Bucher          | Tarzana, CA           |
| Kate Bordisso           | Mill Valley, CA   | Randy Buck              | San Rafael, CA        |
| Marty Bostic            | Los Angeles, CA   | Norma Buckley           | Vacaville, CA         |
| Carol Bostick           | Novato, CA        | Leo Buckley             | San Francisco, CA     |
| Vic Bostock             | Altadena, CA      | Anna Buenrostro         | Los Angeles, CA       |
| Robert Boughton         | Sacramento, CA    | Joseph Buhowsky         | San Ramon, CA         |
| Michael Bowersox        | RAMONA, CA        | Tammy Bullock           | Elcajon, CA           |
| Shawn-Marie Bowker      | Oroville, CA      | Barbara Bullock-Wilson  | Carmel, CA            |
| Gareth Bowles           | Santa Cruz, CA    | Sharon Bunch            | Piedmont, CA          |
| Jason Bowman            | Sacramento, CA    | Susan Bunkers           | Montecito, CA         |
| Carol Boyd              | Escondido, CA     | April Burchardt         | Orland, CA            |
| Gloria Boyd             | Atascadero, CA    | Deborah Burge           | Garden Valley, CA     |
| Kerry Boyd              | Redwood City, CA  | Kat Burgess             | Santa Monica, CA      |
| Rebecca Boyer           | El Sobrante, CA   | Lynn Burgess            | Carmel By The Sea, CA |
| Richard Boyer           | San Clemente, CA  | Elizabeth Burgis        | Sherman Oaks, CA      |
| Lynne Boynton           | Corte Madera, CA  | Cyd Burk                | Emeryville, CA        |
| Taryn Braband           | Agoura, CA        | Barbara Burke           | Smith River, CA       |
| Mary Ellen Braden       | Glendale, CA      | Thomas Burt             | Santa Barbara, CA     |
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| Barbara Brandi          | San Diego, CA     | Elizabeth Burton        | Pasadena, CA          |

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 Cheryl Bushman  
 Andrea Bustos  
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 Nut Butterfly  
 Charles Byrne  
 Patricia Cachopo  
 Yesenia Cachurios  
 Greg Cahill  
 Linda Calbreath  
 Jesse Caldron  
 Susan Calvert  
 Barbara & Cambilargiu  
 Laurel Cameron  
 Sharon Camhi  
 Louis Cammarata  
 Allan Campbell  
 Allan Campbell  
 Brooke Campbell  
 Maya Camu  
 Maya Camu  
 Ximena Canas  
 Tom Canning  
 Evan Carbone  
 Sylvia Cardella  
 Maria Cardenas  
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 Jim Carnal  
 Gina Carollo  
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 Kermit Carraway  
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 Linda Carroll  
 Dr. Viviane Carson  
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 Jennifer Cartwright  
 Elizabeth Carvalho  
 Stewart Casey  
 Megan Casey  
 Stella Casillas  
 Robert Cassinelli  
 Alexandra Castillo  
 Sandy Castle  
 Joe Catania  
 Paula Cavagnaro  
 G Caviglia  
 Anne Cawood  
 Emilio Ceballos  
 Elsa Cervantes  
 Sondra Chacon  
 Carina Chadwick  
 Holly Chadwin  
 Judy Chalifour  
 Claire Chambers  
 Craig Chambers  
 Carol Chandler  
 Diane Chandler  
 Sharon Chang  
 Nicole Chang  
 Carl Chao  
 S Chapek  
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 Stacie Charlebois  
 Ruth Charloff  
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| Deborah Childers   | Modesto, CA                   | Cayla Coleman        | San Rafael, CA                |
| Deborah Lee Chill  | Yucaipa, CA                   | Cynthia Coley        | Lake Forest, CA               |
| Alpina Chilton     | San Francisco, CA             | Deborah Collodel     | Malibu, CA                    |
| Michael Chin       | South San Francisco, CA       | Elizabeth Colon      | Santa Barbara, CA             |
| Karen Chinn        | Cloverdale, CA                | Britt Colton         | San Diego, CA                 |
| Kathryn Choudhury  | Moraga, CA                    | Rev. And Mrs. Colvin | San Francisco, CA             |
| Abdul Chowdhury    | Chino, CA                     | Sharon Colyar        | Clovis, CA                    |
| Rae Choy           | Irvine, CA                    | Holly Combs          | Woodland Hills, CA            |
| Lisa Christensen   | Arroyo Grande, CA             | Sandy Commons        | Sacramento, CA                |
| Bruce Christy      | San Rafael, CA                | Ms. Carla Compton,   | Placerville, CA               |
| Jonathan Chu       | Fremont, CA                   | Deborah Conant       | Gilroy, CA                    |
| Phyllis Chu        | San Francisco, CA             | Vira Confectioner    | Sunol, CA                     |
| Susan Chung        | Los Angeles, CA               | Gary Connaught       | Shasta Lake, CA               |
| Rhonda Church      | San Clemente, CA              | Robert Conner        | Big Bear City, CA             |
| Marina Ciccone     | aliso Viejo, CA               | Kristen Conner       | San Pablo, CA                 |
| Kristen Clapham    | Chico, CA                     | Lyn Conner           | Laguna Niguel, CA             |
| Hilary Clark       | Berkeley, CA                  | Thomas Conroy        | Manhattan Beach, CA           |
| Stephanie Clark    | Concord, CA                   | Carol Cook           | San Mateo, CA                 |
| Irina Clark        | San Diego, CA                 | Robert Cook          | Novato, CA                    |
| Rebecca Clark      | West Hills, CA                | Thea Cook            | Rancho Santa Margarita,<br>CA |
| Susan Clark        | Los Angeles, CA               |                      | Woodacre, CA                  |
| Cheryl Clark       | Santa Monica, CA              | Sheri Cooper         | Santa Ana, CA                 |
| Jeff Clark         | Anaheim, CA                   | Rj Cooper            | Oakland, CA                   |
| Richard Clarke     | Palm Desert, CA               | Cynthia Cooper       | Tarzana, CA                   |
| Kristen Clausen    | Sonoma, CA                    | Cecly Corbett        | Loma Linda,, CA               |
| Sarada Cleary      | Oceanside, CA                 | Kris Cordova         | Laguna Beach, CA              |
| Steve Clifford     | Rancho Santa Margarita,<br>CA | Stacy Cornelius      | Los Angeles, CA               |
|                    | Encinitas, CA                 | Alyza Cornett        | Los Angeles, CA               |
| Gabrielle Clifford | Long Beach, CA                | Alyza Cornett        | Concord, CA                   |
| Frederick Cliver   | San Francisco, CA             | John Cornish         | Walnut, CA                    |
| Luz Cobarrubias    | Los Angeles, CA               | Melanie Corrigall    | San Diego, CA                 |
| Shane Coburn       | San Francisco, CA             | Anne Corrigan        | Santa Barbara, CA             |
| Andrea Cochran     | Belmont, CA                   | Ronit Corry          | San Bernardino, CA            |
| Shiela Cockshott   | Galt, CA                      | Francisco Cortez     | Redondo Beach, CA             |
| Rosalba Cofer      | Shasta Lake, CA               | Mc Corvalan          | Sacramento, CA                |
| Lynette Coffey     | Cathedral City, CA            | Deborah Cosentino    | Ceres, CA                     |
| Charlotte Cohen    | Pasadena, CA                  | James Costello       | SunNew Yorkvale, CA           |
| Jennie Cohen       | San Diego, CA                 | Bruce Coston         | Ventura, CA                   |
| Dolores Cohenour   | Sacramento, CA                | David Cotner         | Huntington Beach, CA          |
| Karen Colbourn     | San Pedro90, CA               | Ann Cotter           | Chico, CA                     |
| Carolyn Cole       | Joshua Tree, CA               | Eric Coulson         | Orange, CA                    |
| J Cole             |                               | Ms Courtney          |                               |

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| Tim Covey                | Ventura, CA         | Bonny Davis               | Grass Valley, CA     |
| Linda Cowgill            | Santa Monica, CA    | Ellen Davis               | Los Angeles, CA      |
| Jenn Cox                 | Carmichael, CA      | Vicki Davis               | Emerald Hills, CA    |
| Tim Cox                  | Claremont, CA       | Carla Davis               | Corte Madera, CA     |
| Gregory Coyle            | San Francisco, CA   | Jean Davis                | Mibtrose, CA         |
| Ella Craig               | Eureka, CA          | James Dawson              | Davis, CA            |
| Anna Craig               | Belmont, CA         | Misty Day                 | Fullerton, CA        |
| Donna Crane              | Anderson, CA        | Jorge De Cecco            | Ukiah, CA            |
| Judy Cribbins            | NV City, CA         | Sylvia De Souza           | Rohnert Park, CA     |
| William Crist            | Pacifica, CA        | Rayline Dean              | Ridgecrest, CA       |
| Nanette Cronk            | Truckee, CA         | Joanne Deanfreemire       | North Fork, CA       |
| Donna Crossman           | Coronado, CA        | Vic Deangelo              | San Francisco, CA    |
| Jesse Croxton            | Venice, CA          | Glen Deardorff            | castro valley, CA    |
| Kermit Cuff              | Mountain View, CA   | Therese Debing            | Pacific Grove, CA    |
| Judith Culp              | Menifee, CA         | Baudouin Debrabandere     | Santa Cruz, CA       |
| Debra Cunningham         | Oceanside, CA       | Thom Decant               | Napa, CA             |
| Barbara Cunningham       | Glendale, CA        | Yves Decargouet           | Lucerne, CA          |
| Jim Curland              | Moss Landing, CA    | Terri Decker              | Redding, CA          |
| Barbette Curran          | Laguna Woods, CA    | Bonnie Declark            | San Rafael, CA       |
| Michael Curtis           | San Diego, CA       | Mary Degagne              | Santa Rosa, CA       |
| Francie Curtiss          | Los Altos, CA       | Vito Degrigoli            | Palm Springs, CA     |
| Christen Cutrona         | South Pasadena, CA  | John Delgado              | San Martin, CA       |
| Romona Czichoslaughter   | Hollister, CA       | Roxanne Delgado           | Antioch, CA          |
| Carole Dadurka           | San Clemente, CA    | Dolores Delgado           | Sebastopol, CA       |
| Carmel Dagan             | Los Angeles, CA     | Carmen Joseph Dello Buono | San Jose, CA         |
| Rev Dr Donald J Dallmann | Cambria, CA         | Susan Dempsay             | Santa Barbara, CA    |
| Krista Dana              | SunNew Yorkvale, CA | Lawrence Deng             | San Jose, CA         |
| Mark D'Andrea            | Carlsbad, CA        | Michael Denton            | San Leandro, CA      |
| Hilary Danehy            | Fremont, CA         | Genevieve Deppong         | Los Altos, CA        |
| Matthew Danielczyk       | Lompoc, CA          | Jeanette Desmond          | Camarillo, CA        |
| Jessica Dardarian        | Folsom, CA          | Radha Devi                | NV City, CA          |
| Kimble Darlington        | Smith River, CA     | Karla Devine              | Manhattan Beach, CA  |
| Renee Darner             | San Francisco, CA   | Jean Devito               | Diamond Bar, CA      |
| Aimee Darrow             | Venice, CA          | Danielle Devoy            | Hawthorne, CA        |
| Michael Daveiga          | Concord, CA         | Lynda Diamond             | Walnut Creek, CA     |
| Arielle Davidson         | Long Beach, CA      | Felipe Diaz               | San Francisco, CA    |
| Diana Davidson           | Los Angeles, CA     | Leilani Dicato            | Orange, CA           |
| Lynne Davies             | San Francisco, CA   | Lori Dick                 | Claremont, CA        |
| Sha Davies               | Redding, CA         | Carolyn Dickson           | Rancho Cucamonga, CA |
| Ryan Davis               | Burbank, CA         | John Dillard              | Santa Barbara, CA    |
| Amy Davis                | Vista, CA           | Dominic Dimaio            | Millbrae, CA         |
| Katherine Davis          | Los Angeles, CA     | Larry Dinger              | Rocklin, CA          |
| Bob Davis                | San Diego, CA       | Laura Divenere            | Los Angeles, CA      |

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| Mary Doane            | Watsonville, CA     | Elaine Edell        | Westlake Village, CA  |
| Judy Doane            | San Francisco, CA   | Paul Edelman        | Woodland Hills, CA    |
| Jennice Dobroszczyk   | Clovis, CA          | Jonathan Eden       | Berkeley, CA          |
| Kim Dobrowsky         | San Diego, CA       | Iris Edinger        | Woodland Hills, CA    |
| Gary W. Dolgin        | Santa Monica, CA    | Zoe Edington        | Monterey, CA          |
| Renate Dolin          | Malibu, CA          | Rick Edmondson      | Danville, CA          |
| Alan Dolit            | Oceanside, CA       | Alan Edmondson      | San Rafael, CA        |
| Mari Dominguez        | Linden, CA          | Elizabeth Edwards   | Newport Beach, CA     |
| Jacquelyn Donohue     | Hemet, CA           | Tamara Efron        | Indio, CA             |
| Colin Donohue         | Yucca Valley, CA    | Susie Egan          | San Diego, CA         |
| LI Dored              | Los Angeles, CA     | Rebecca Egger       | Berkeley, CA          |
| Jeff Dorer            | Los Angeles, CA     | Francene Eguren     | Redondo Beach, CA     |
| Carol Dorrance        | Berkeley, CA        | Vivian Ehresman     | Chatsworth, CA        |
| Ann Dorsey            | Northridge, CA      | Liz Eisenbeis       | Lodi, CA              |
| Thea Doty             | Sebastopol, CA      | Laurie Eisler       | Cotati, CA            |
| Rob Doucette          | Playa Del Rey, CA   | W El-Ahdab          | Oakland, CA           |
| Paulette Doulatshahi  | Playa Del Rey, CA   | Evan Elias          | San Francisco, CA     |
| Ben Dover             | CARMICHAEL, CA      | Anaundda Elijah     | San Luis Obispo, CA   |
| Robert Downer         | Oceanside, CA       | Cheryl Elkins       | San Diego, CA         |
| Steve Downing         | Santa Barbara, CA   | Barbara Ellen       | Walnut Creek, CA      |
| Tim Dressel           | Oceanside, CA       | Caleb Ellis         | Los Angeles, CA       |
| Richard Driscoll      | Vallejo, CA         | Bonnie Elsten       | Long Beach, CA        |
| Mary Driskill         | Mission Viejo, CA   | Alana Emhardt       | Santa Monica, CA      |
| Vinny Droughton       | Los Angeles, CA     | Linda Emme          | Marshall, CA          |
| Elizabeth Dryden      | Woodland, CA        | Scott Emsley        | Carmel, CA            |
| Nancy Dubuc           | Pasadena, CA        | Marilyn Eng         | Diamond Bar, CA       |
| Connie Ducey          | San Anselmo, CA     | John Engell         | San Francisco, CA     |
| Pat Dufau             | San Clemente, CA    | Teresa English      | Los Angeles, CA       |
| Susan Dugger-Mathison | San Francisco, CA   | Janet English       | Redwood City, CA      |
| Kellen Dunn           | Manhattan Beach, CA | Walter Erhorn       | spring valley, CA     |
| Arnaud Dunoyer        | Venice, CA          | Eric Ericson        | Pacific Palisades, CA |
| Nicolas Duon          | Santa Ana, CA       | Louise Espinoza     | Santa Rosa, CA        |
| Nico Duon             | Aliso, CA           | Dan Esposito        | Manhattan Beach, CA   |
| Kira Durbin           | Sherman Oaks, CA    | Andrea Espy         | Dana Point, CA        |
| Rc Dutra              | Union City, CA      | Nicholas Esser      | Simi Valley, CA       |
| John Dutton           | Santa Barbara, CA   | Betsy Eudey         | Twain Harte, CA       |
| Ronald Dybvig         | Ventura, CA         | Bill Evans          | Pasadena, CA          |
| Tom E                 | Hesperia, CA        | Keisha Evans        | East Palo Alto, CA    |
| Lee Eames             | Long Beach, CA      | John Everett        | Grass Valley, CA      |
| Carol Easton          | Aptos, CA           | Carol Lynne Eyster  | Redlands, CA          |
| Chris Eaton           | Los Angeles, CA     | Donna Fabiano       | Forestville, CA       |
| Amber Eby             | San Francisco, CA   | Rita Fahrner        | San Francisco, CA     |
| Andres Echeverria     | Los Angeles, CA     | Barbara Fairweather | Goleta, CA            |



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| Donna Falcone        | Los Angeles, CA       | Martha Ann Fitzpatrick | Dana Point, CA         |
| Susan Falkenbach     | Torrance, CA          | Bob Flagg              | Forestville, CA        |
| Gael Faller          | Oxnard, CA            | Sara Flamm             | Los Angeles, CA        |
| Dominick Falzone     | Los Angeles, CA       | Marcia Flannery        | Oakland, CA            |
| Valerie Fannin       | Chico, CA             | Carol Fleitz           | Alameda, CA            |
| Sophia Fanslow       | Buena Park, CA        | Stephanie Flesner      | Long Beach, CA         |
| Colin Farish         | Mill Valley, CA       | Charles Fletcher       | Mountain Center, CA    |
| David Farwell        | Carmel, CA            | Richard Flittie        | Pleasant Hill, CA      |
| Giovannina Fazio     | Belmont, CA           | Michael Floeck         | Los Angeles, CA        |
| Laura Featherpistol  | South Lake Tahoe, CA  | Cynthia Florenzen      | Healdsburg, CA         |
| Colleen Fedor        | Alameda, CA           | Lilly Flores           | Winchester, CA         |
| Kathrine Fegette     | NEWCASTLE, CA         | Christine Fluor        | Corona del Mar, CA     |
| Kathie Feidler       | Kentfield, CA         | Christopher Flynn      | San Jose, CA           |
| Suzanne Feighery     | Fullerton, CA         | Byron Fogel            | Panorama City, CA      |
| John Feissel         | San Jose, CA          | Stephan Foley          | Ojai, CA               |
| Mark Feldman         | Santa Rosa, CA        | Jon Fong               | San Francisco, CA      |
| R. Felice            | Carlsbad, CA          | Lincoln Fong           | San Francisco, CA      |
| Ruth Felix           | Walnut Creek, CA      | Karissa Fong           | Chino, CA              |
| Ramon Felix          | Bakersfield, CA       | Simone Fonseca         | victorville, CA        |
| Jon Fell             | Hayward, CA           | Jane Forbes            | Santa Cruz, CA         |
| Cindy Ferguson       | Sacramento, CA        | Sari Fordham           | Riverside, CA          |
| Kathleen Fernandez   | Huntington Beach, CA  | Ava Formica            | San Jose, CA           |
| Carl Ferrero         | Atherton, CA          | Kim Forrest            | Los Banos, CA          |
| Asano Fertig         | Berkeley, CA          | Hal Forsen             | San Clemente, CA       |
| David Field          | Santa Cruz, CA        | George Fosselius       | El Cerrito, CA         |
| Jessica Fielden Md   | Oakland, CA           | Sam Foulks             | Upland, CA             |
| Aixa Fielder         | Los Angeles, CA       | Elena Fowler           | Palm Desert, CA        |
| Heidi Fielding       | North Hollywood, CA   | Angela Fox             | Desert hot springs, CA |
| Chris Figueroa       | Monrovia, CA          | Janene Frahm           | San Anselmo, CA        |
| Michael Filip        | Mount Shasta, CA      | Laurie Fraker          | El Centro, CA          |
| Thomas Filip         | Moorpark, CA          | Darren Frale           | Los Angeles, CA        |
| Anthony Filippone li | San Diego, CA         | Dawn Francisco         | Huntington Beach, CA   |
| Cynthia Fillmore     | San Diego, CA         | Marion Frank           | Berkeley, CA           |
| Ann Filor            | San Jose, CA          | Constance Franklin     | Los Angeles, CA        |
| Patti Fink           | Petaluma, CA          | Amy Franz              | La Habra Heights, CA   |
| Jason Fish           | Fair Oaks, CA         | Mary Franz             | Laguna Beach, CA       |
| Larry Fish           | Moreno Valley, CA     | Kristy Frazier         | Idyllwild, CA          |
| Melanie Fisher       | Calabasas, CA         | Rea Freedom            | Los Gatos, CA          |
| Bob Fisher           | Laguna Hills, CA      | Linda Freeman          | Yuba City, CA          |
| Gayle Fisher         | Orange, CA            | Michael Friedman       | El Sobrante, CA        |
| Mike Fitch           | LA, CA                | Jan Friel              | Fullerton, CA          |
| Austin Fite          | Pacific Palisades, CA | Jeff Fromberg          | Los Angeles, CA        |

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| Karl Fromuth        | Riverside, CA             | Dee Gee             | Los Angeles, CA        |
| Vivienne Frost      | Petaluma, CA              | Lisa Gee            | La Crescenta, CA       |
| Earl Frounfelter    | Santa Maria, CA           | Sandra Geist        | SANTA CRUZ, CA         |
| Tom Fuerte          | San Jose, CA              | Mija Gentes         | Saratoga, CA           |
| Kristina Fukuda     | Los Angeles, CA           | George Georganas    | Elk, CA                |
| Judy Fukunaga       | Arroyo Grande, CA         | Carolyn George      | Palo Alto, CA          |
| Jan Fulcomer        | San Diego, CA             | Julie George        | Apple Valley, CA       |
| Arlene Fullaway     | Cypress, CA               | Madelaine Georgette | Oakland, CA            |
| Marilyn Fuller      | Los Gatos, CA             | Alexis Georgiou     | Santa Clara, CA        |
| Sherrill Futrell    | Davis, CA                 | Julie Gerien        | Napa, CA               |
| Joe Futterer        | Topanga, CA               | Dani Gersalia       | Woodland, CA           |
| Shana G             | San Dimas, CA             | Michael Gertz       | San Francisco, CA      |
| Emme G              | Beverly Hills, CA         | Lisa Gherardi       | Los Gatos, CA          |
| Nick Gaetano        | Laguna Beach, CA          | Janine Giaime       | Valley Village, CA     |
| Mal Gaff            | Lompoc, CA                | Pamela Gibberman    | Panorama City, CA      |
| Judith Gage-Nesmith | Soquel, CA                | Phoenix Giffen      | Fairfax, CA            |
| Michael Gagliardo   | Sebastopol, CA            | Camille Gilbert     | Santa Barbara, CA      |
| Joyce Galantai      | Los Angeles, CA           | Debbie Ginnelly     | Pine Grove, CA         |
| Daryl Gale          | Los Angeles, CA           | Mark Giordani       | Woodland Hills, CA     |
| Craig Galloway      | Santa Monica, CA          | Kathleen Giustino   | Berkeley, CA           |
| Gunnar Galvins      | San Francisco, CA         | Barbara Gladfelter  | Dixon, CA              |
| Mario Gamez         | San Diego, CA             | Catherine Glahn     | San Mateo, CA          |
| Angela Gantos       | Belvedere Tiburon, CA     | Mark Glasser        | Los Angeles, CA        |
| Sharma Gaponoff     | Grass Valley, CA          | Joe Glaston         | Desert Hot Springs, CA |
| Marcia Garceau      | San Diego, CA             | Stephanie Glatt     | Buellton, CA           |
| Cali Garces         | Mission Viejo, CA         | Lisa Braun Glazer   | La Jolla, CA           |
| Hector Garcia       | Pasadena, CA              | Alison Glennon      | SAN DIEGO, CA          |
| Jeffery Garcia      | Mendocino, CA             | Joyce Glennon       | San Diego, CA          |
| Armando A Garcia    | Perris, CA                | Ali Glennon         | San Diego, CA          |
| Teresa Garcia       | Fresno, CA                | Allan Glick         | San Diego, CA          |
| Jaclyn Garcia       | Sacramento, CA            | Robert Glover       | Fresno, CA             |
| Perla Garcia        | Pico Rivera, CA           | Edwin Glover        | Hacienda Heights, CA   |
| Jan Gardner         | Rolling Hills Estates, CA | Gary Goetz          | Pacific Grove, CA      |
| Guy Gargiullo       | Oakland, CA               | Henry Goff          | San Diego, CA          |
| Michael Garitty     | NV City, CA               | Frances Goff        | Pasadena, CA           |
| Dana Garman         | Santa Monica, CA          | Warren Gold         | Mill Valley, CA        |
| Jamila Garrecht     | Petaluma, CA              | Susan Goldberg      | Glendale, CA           |
| Marjo Garrison      | San Gabriel, CA           | Daniel Goldberg     | Riverside, CA          |
| J Gary              | San Diego, CA             | Victoria Golden     | Bakersfield, CA        |
| David Gassman       | Oakland, CA               | Ga Goldfarb         | Malibu, CA             |
| Mary Gastelo        | San Fernando, CA          | Bobbi Goldin        | Woodland Hills, CA     |
| Gina Gatto          | Castro Valley, CA         | John Golding        | Oakland, CA            |
| Patricia Gavigan    | Los Angeles, CA           | Jill Goldman        | Toluca Lake, CA        |

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| Kathleen Goldman   | Manhattan Beach, CA   | David Griffith   | Rancho Cucamonga, CA |
| Sergi Goldmanhull  | Oakland, CA           | Antonio Grijalva | Los Angeles, CA      |
| Sheila Goldner     | Cathedral City, CA    | Dean Griswold    | Fair Oaks, CA        |
| Susan Goldstein    | Danville, CA          | Alexis Grone     | Oceanside, CA        |
| Vola Golena        | Beverly Hills, CA     | Malcolm Groome   | Topanga, CA          |
| Anne Gomer         | Martinez, CA          | Kurt Gross       | San Diego, CA        |
| Armando Gomez      | Santa Ros, CA         | Sandy Gross      | Lynwood, CA          |
| Michele Gonzales   | West Sacramento, CA   | Gloria Grotjan   | Aptos, CA            |
| Leslie Gonzales    | Lancaster, CA         | Carol Gruetzner  | Saint Helena, CA     |
| Alan Gonzalez      | Long Beach, CA        | Vicki Gruman     | Walnut Creek, CA     |
| Edith Gonzalez     | La Puente, CA         | Kathryne Guidero | Temecula, CA         |
| Margarita Gonzalez | Sylmar, CA            | Eugenia Guilin   | Blythe, CA           |
| Hanh Gonzalez      | Temecula, CA          | Joseph Guilin    | Riverside, CA        |
| Lydia Good         | Rancho Cordova, CA    | Stacy Guillen    | Oceanside, CA        |
| Richard Goodrich   | Fallbrook, CA         | Geralyn Gulseth  | Alameda, CA          |
| Elizabeth Goodwin  | Los Angeles, CA       | Karen Guma       | Petaluma, CA         |
| Mary Gorden        | Lemon Cove, CA        | J. Barry Gurdin  | San Francisco, CA    |
| Carol Gordon       | Los Angeles, CA       | Garth Gurley     | Campbell, CA         |
| Ingrid Gordon      | Berkeley, CA          | Elin Guthrie     | Los Angeles, CA      |
| Gail Gordon        | Westminster, CA       | Oscar Gutierrez  | San Diego, CA        |
| Mari Gosselin      | Oceanside, CA         | David Gutierrez  | Los Angeles, CA      |
| Mark Gotvald       | Pleasant Hill, CA     | Ronnie Gutierrez | Torrance, CA         |
| Katarina Grabowsky | Castro Valley, CA     | Stefanie Guynn   | Berkeley, CA         |
| George Grace       | Los Angeles, CA       | Mario Guzman     | San Jose, CA         |
| Greg Grady         | Fairfax, CA           | Will H           | Roseville, CA        |
| Steve Graff        | Los Angeles, CA       | Adam H           | Los Angeles, CA      |
| Herb Grageda       | San Pedro, CA         | L Haage          | Oakland, CA          |
| Janet Graham       | Santa Barbara, CA     | Dale Haas        | San Diego, CA        |
| Fred Granlund      | North Hollywood, CA   | Reem Haddad      | La Verne, CA         |
| Caryn Graves       | BERKELEY, CA          | Amelia Hadfield  | San Jose, CA         |
| Jamie Green        | Ventura, CA           | Gloria Hafner    | Rohnert Park, CA     |
| Lee Greenawalt     | Merced, CA            | Sean Hagstrom    | Redlands, CA         |
| J Greene           | Chico, CA             | Brenda Haig      | Long Beach, CA       |
| Linda Greene       | La Habra, CA          | Denise Halbe     | Sonoma, CA           |
| Brigette Greener   | San Jose, CA          | Earle Hale       | Soquel, CA           |
| Gail Greenlees     | Pt. Reyes Station, CA | Wadane Haley     | Elk Grove, CA        |
| Lance Greer        | La Jolla, CA          | Diana Hall       | Mountain View, CA    |
| Rodman Gregg       | Los Angeles, CA       | Christopher Hall | Glendale, CA         |
| Faye Gregory       | Colton, CA            | Stuart Hall      | San Francisco, CA    |
| Tara Grenier       | Los Angeles, CA       | Karen Hall       | Sonoma, CA           |
| Fern Grether       | Santa Clara, CA       | Ellen Hall       | Pacifica, CA         |
| Debi Griepsma      | Fontana, CA           | Vicki Hall       | Yorba Linda, CA      |
| Joan Griffin       | NV City, CA           | Esther Hallam    | San Diego, CA        |

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|----------------------|----------------------|--------------------|-----------------------|
| Gary Hamel           | Oceano, CA           | Sara Hayes         | Long Beach, CA        |
| Pamela Hamilton      | West Sacramento, CA  | Billie Hayes       | Los Angeles, CA       |
| Frederick Hamilton   | Rancho Cucamonga, CA | Kris Head          | Garden Grove, CA      |
| Chris Hamilton       | Laguna Niguel, CA    | Susan Head         | Sausalito, CA         |
| Christopher Hamilton | Berkeley, CA         | Patt Healy         | Santa Monica, CA      |
| Robin Hamlin         | Mckinleyville, CA    | Chuck Heard        | Santa Monica, CA      |
| Clarice Hampel       | Foster City, CA      | Kevin Hearle Ph.D. | San Mateo, CA         |
| Susan Hampton        | El Cerrito, CA       | Nancy Heck         | Santa Maria, CA       |
| Sherry Handy         | Pasadena, CA         | Judith Heffron     | La Verne, CA          |
| Susan Hanger         | topanga, CA          | Kyle Heger         | Albany, CA            |
| Steve Hanlon         | Los Angeles, CA      | Jessica Heiden     | Eureka, CA            |
| Jeannette Hanna      | Sacramento, CA       | Janet Heinle       | Santa Monica, CA      |
| Ron Hansel           | West Covina, CA      | Bridgett Heinly    | San Diego, CA         |
| Lynn Hansen          | Moorpark, CA         | Amanda Heinrich    | Goleta, CA            |
| Carla Harden         | Rio Vista, CA        | Chris Heitkemper   | Chatsworth, CA        |
| Joseph Hardin        | Santa Monica, CA     | Lesle Helgason     | Pebble Beach, CA      |
| Natasha Harding      | Huntington Beach, CA | Karen Hellwig      | Los Angeles, CA       |
| Lynne Hargett        | Lompoc, CA           | Karla Henderson    | San Ysidro, CA        |
| Barbara Harpe        | Lomita, CA           | Nancy Henderson    | Orinda, CA            |
| Charesa Harper       | Napa, CA             | Bryce Heng         | Goleta, CA            |
| Kate Harper          | Citrus Heights, CA   | Charlene Henley    | San Jose, CA          |
| Barbara Harper       | Castroville, CA      | Clarissa Henry     | Long Beach, CA        |
| Silva Harr           | Concord, CA          | Birgit Hermann     | San Francisco, CA     |
| Marc Harries         | Beverly Hills, CA    | Thomas Hernandez   | Corona, CA            |
| Beverly Harris       | Beverly Hills, CA    | Gilbert Hernandez  | Los Angeles, CA       |
| Zoe Harris           | San Anselmo, CA      | Laura Herndon      | Burbank, CA           |
| Lois Harris          | Claremont, CA        | Ana Herold         | Pacifica, CA          |
| Lois Harris          | Claremont, CA        | Rilla Heslin       | La Mesa, CA           |
| John Harter          | Marina, CA           | Darienne Hetherman | Altadena, CA          |
| Nancy Hartman        | lafayette, CA        | Suzanne Hewey      | San Diego, CA         |
| Erfin Hartojo        | Walnut, CA           | Carol Hewitt       | Signal Hill, CA       |
| Sandra Hartojo       | Walnut, CA           | Joyce Heyn         | Poway, CA             |
| Claudia Hasenhuttl   | Glendale, CA         | Steven Hibshman    | Foster City, CA       |
| Laurie Hatch         | Lone Pine, CA        | Robert Hicks       | Long Beach, CA        |
| Nadine Hatcher       | Camarillo, CA        | Jacquie Hicks      | Santa Ana, CA         |
| James Hatchett       | Reseda, CA           | Nancy Hiestand     | Davis, CA             |
| Brenda Hattisburg    | San Leandro, CA      | Michael Higgins    | Los Angeles, CA       |
| Artineh Havan        | Burbank, CA          | Dennis Higgins     | Pacific Palisades, CA |
| Terry Hawkins        | San Francisco, CA    | Diane Higgs        | West Hills, CA        |
| John Hawkins         | Newbury Park, CA     | Eloise Hill        | Alameda, CA           |
| Sharon Hawkinson     | Citrus Heights, CA   | Daisy Hill         | Vista, CA             |
| Alys Hay             | Windsor, CA          | Henry Hinds        | San Rafael, CA        |
| Noah Haydon          | Daly City, CA        | Richard Hingel     | San Francisco, CA     |

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|-------------------------|-----------------------|----------------------|----------------------|
| Dana Hinkle             | Red Bluff, CA         | Molly Huddleston     | Santa Rosa, CA       |
| Deborah Hirsch          | Palm Springs, CA      | Lorna Hudgins        | Pasadena, CA         |
| Ardis Hitchborn         | Bishop, CA            | Mariela T Huerta     | Los Angeles, CA      |
| Judith Hoaglund         | Santa Rosa, CA        | Mari Huggins-Weston  | Los Angeles, CA      |
| Gail Hoak               | San Jacinto, CA       | Vicki Hughes         | Huntington Beach, CA |
| Lynn Hoang              | Fullerton, CA         | Erin Hughes          | Lake Elsinore, CA    |
| Zora Hocking            | Santa Rosa, CA        | Suzanne Hume         | Oceanside, CA        |
| Mary Hoffman            | Santa Barbara, CA     | Paul Hunrichs        | Santee, CA           |
| Peter Hogan             | Glendale, CA          | Valerie Hunt         | Gilroy, CA           |
| Bettie Holaday          | San Francisco, CA     | Michael Hunter       | Woodacre, CA         |
| Cathy Holden            | Sacramento, CA        | Michael Hunter       | Woodacre, CA         |
| Cheryl Holder           | Culver City, CA       | Sandy Hunter         | Salinas, CA          |
| Carla Holguin           | Los Angeles, CA       | Holly Huntley        | Simi Valley, CA      |
| Roger Hollander         | Tarzana, CA           | Mark Hurst           | Orinda, CA           |
| Sterling Hollins        | Oakland, CA           | Steven Huskey        | Los Angeles, CA      |
| Candace Hollis-Franklyn | Belvedere Tiburon, CA | Jacob Huskey         | Santa Cruz, CA       |
| Katleen Holmes          | Alpine, CA            | Terrance Hutchinson  | California City, CA  |
| K Holt                  | Rancho Santa Fe, CA   | Melissa Hutchinson   | Pacific Grove, CA    |
| Steven Holzberg         | Fair Oaks, CA         | Graciela Huth        | Los Angeles, CA      |
| Jeff Homan              | Mountain View, CA     | Mike Huwe            | Manhattan Beach, CA  |
| Mike Honda              | Santa Ana, CA         | Jinx Hydeman         | Lake Forest, CA      |
| Brittany Honeyman       | Sacramento, CA        | David Ibanez         | Citrus Heights, CA   |
| Celeste Hong            | L.A., CA              | Maryan Infield       | San Luis Obispo, CA  |
| Susan Hood              | Sacramento, CA        | Kajsa Ingelsson      | West Hollywood, CA   |
| Stoney Hooker           | San Diego, CA         | Sally Ingram         | Occidental, CA       |
| Janet Hoover            | Garden Grove, CA      | Miriam L. Iosupovici | Imperial Beach, CA   |
| Winifred Hopkins        | Fullerton, CA         | Bonnie Ip            | rosemead, CA         |
| Adriana Horn            | Los Angeles, CA       | Vanessa Ipsen        | San Carlos, CA       |
| Betty Horner            | San Jose, CA          | Lynn Ireland         | San rafael, CA       |
| Kimberly Horsley        | Martinez, CA          | Heather Isaac        | Vista, CA            |
| Martin Horwitz          | San Francisco, CA     | David Isler          | Albany, CA           |
| Marjorie Hoskinson      | THOUSAND OAKS, CA     | Sheryl Iversen       | Murrieta, CA         |
| Barbara Hosmer          | Mission viejo, CA     | Steve Iverson        | Newport Beach, CA    |
| Cyndi Houck             | Santa Rosa, CA        | Tony Iwane           | Emeryville, CA       |
| Lorrel Hovland          | Santa Rosa, CA        | Stephanie Jackel     | Vista, CA            |
| Erin Howard             | Oakland, CA           | Alicia Jackson       | Vallejo, CA          |
| Brandyce Howard         | Long Beach, CA        | Victoria Jacobs      | LOS ANGELES, CA      |
| John Howard             | Venice, CA            | Trudy Jacobs         | Sacramento,, CA      |
| Robin Howe              | Escondido, CA         | Barbara Jacobsen     | Sonoma, CA           |
| Sherrie Howell          | Pleasanton, CA        | Karen Jacques        | Sacramento, CA       |
| Linda Howie             | Woodland Hills, CA    | Paula Jain           | NV City, CA          |
| Terry Hsieh             | Torrance, CA          | Corinne James        | Clovis, CA           |
| Katherine Hsu           | Cerritos, CA          | Anthony Jammal       | Roseville, CA        |

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|----------------------|-----------------------------|-----------------------|----------------------|
| Ramsey Jammal        | Daly City, CA               | Gloria Junkermann     | Port Hueneme, CA     |
| Hoku Janbazian       | Monrovia, CA                | Danielle K            | El. Dorado hills, CA |
| Jenniferlynn Jankesh | Santa Monica, CA            | Aga Kadlubowska       | Los Angeles, CA      |
| Glenn Jansa          | Ontario, CA                 | Pauline Kahney        | San Francisco, CA    |
| Robert Jardine       | Cupertino, CA               | Marianne Kai          | Sherman Oaks, CA     |
| Lisa Jensen          | Santa Cruz, CA              | Natalie Kalustian     | Northridge, CA       |
| Renee Jeska          | Seal Beach, CA              | Na Kaluza             | El Sobrante, CA      |
| Martha Jimenez       | Alameda, CA                 | Tara Kamath           | Santa Monica, CA     |
| Megan Jimerson       | Los Angeles, CA             | Allen Kanner          | Berkeley, CA         |
| Audrey Jin           | Palos Verdes Estates, CA    | Constance Kao         | San Francisco, CA    |
| Claire Joaquin       | Pollock Pines, CA           | Adam Kaplan           | Laguna Beach, CA     |
| Ann Johannsen        | Santa Ana, CA               | Ann Kaplan            | Mill Valley, CA      |
| Heather John         | Inglewood, CA               | Eileen Karzen         | Los Angeles, CA      |
| Christine Johnson    | Indio, CA                   | Lise Kastigar         | Laguna Niguel, CA    |
| Helen Johnson        | Potter Valley, CA           | Paula Katz            | San Francisco, CA    |
| Robert Johnson       | El Segundo, CA              | Sara Katz             | Manhattan Beach, CA  |
| Shawn Johnson        | Encinitas, CA               | Paul Katz             | Aromas, CA           |
| Gregg Johnson        | San Jose, CA                | Diana Katz            | Los Angeles, CA      |
| Rodney Johnson       | Tujunga, CA                 | Kimberly Kauffman     | Sacramento, CA       |
| Stacey Johnson       | Covina, CA                  | Bailey Kauffman       | Sacramento, CA       |
| Elizabeth Johnson    | AlbsNew York, CA            | Patricia Keefe        | Novato, CA           |
| Don Johnston         | Davis, CA                   | Lori Kegler           | San Pedro, CA        |
| Michael A. Johnston  | San Diego, CA               | Kathy Kelehan         | Los Angeles, CA      |
| Mike Jones           | West Hills, CA              | Nancy Keleher         | Ferndale, CA         |
| Rev. Allan B. Jones  | Santa Rosa, CA              | Tony Kelley           | Sacramento, CA       |
| S Jones              | Costa Mesa, CA              | Keith Kellogg         | Santa Cruz, CA       |
| Jan Jones            | El Cerrito, CA              | Miracle T Kelly       | San Marcos, CA       |
| Amelia Jones         | Santa Monica, CA            | Mike Kelly            | Huntington Beach, CA |
| Pam Jones            | CaNew Yorkon Country,<br>CA | John Kelly            | Westminster, CA      |
| Dan Jones            | Sonoma, CA                  | Jane Kelsberg         | Antioch, CA          |
| Diana Jones          | Hacienda Heights, CA        | Shannon Kemena        | Elk Grove, CA        |
| Susan Jones          | Apple Valley, CA            | Ballinger Kemp        | Richmond, CA         |
| Shawn Jonesbunn      | Avila Beach, CA             | Carol Kerridge        | Del Mar, CA          |
| Lance Jordan         | San Diego, CA               | Rhonda Kess           | Burbank, CA          |
| Samantha Jorge       | Santa Monica, CA            | Dr. Mha Atma S Khalsa | Los Angeles, CA      |
| Alena Jorgensen      | Temple City, CA             | Amrit Khalsa          | Redondo Beach, CA    |
| Molly Joseph         | Glendale, CA                | Sheila Khilnani       | Foster City, CA      |
| Stephen Josephson    | Berkeley, CA                | Rubi Khilnani         | San Mateo, CA        |
| Martha Joslyn        | Pacifica, CA                | Barbara Kiernan       | Olivehurst, CA       |
| Carrie Joy           | San Pablo, CA               | Ann Killebrew         | Oakland, CA          |
| Bianca Jund          | Ladera Ranch, CA            | Vanessa Killingsworth | Spring Valley, CA    |
| Scott Jung           | south pasadena, CA          | Audrey Kim            | Pasadena, CA         |
|                      |                             | Sarah Kim             | Santa Clara, CA      |

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|---------------------|---------------------|---------------------|----------------------------|
| Elli Kimbauer       | Crescent City, CA   | Jill Kraus          | Rancho Santa Margarita, CA |
| Jean King           | Livermore, CA       | Rebel Kreklow       | Fair Oaks, CA              |
| Stephen King        | San Francisco, CA   | Tina Kremzner-Hsing | Albany, CA                 |
| Sherrie King        | Torrance, CA        | Evan Jane Kriss     | Sausalito, CA              |
| Sonia King          | Soquel, CA          | Christine Kroger    | Stockton, CA               |
| David King          | Los Angeles, CA     | Catherine Krueger   | El Cerrito, CA             |
| Christopher King    | OR House, CA        | Henry Kruger        | Eureka, CA                 |
| Sue King            | Pleasanton, CA      | Jeff Krupnick       | San Rafael, CA             |
| David Kinkaid       | San Diego, CA       | Benjamin Kugerl     | Los Angeles, CA            |
| Nanook Kinnear      | Santa Ana, CA       | Michael Kunda       | Sacramento, CA             |
| Dana Kinonen        | Torrance, CA        | Sheri Kuticka       | Concord, CA                |
| Gale Kirk           | Newport Beach, CA   | Lisa Kutner M.D.    | San Diego, CA              |
| Lindsey Kirk        | Martinez, CA        | Laakea Laano        | Oakland, CA                |
| Connie Kirkham      | Clearlake Oaks, CA  | Michael Labaun      | Brea, CA                   |
| Saran Kirschbaum    | Los Angeles, CA     | Deborah Labelle     | El Cajon, CA               |
| Cynthia Kirschling  | Sacramento, CA      | Ga Labey            | Palm Desert, CA            |
| Betty Kissilove     | San Francisco, CA   | Elizabeth Ladiana   | Ventura, CA                |
| Elmone Kissling     | Eureka, CA          | Rochelle Lafrinere  | San Diego, CA              |
| Marc Kitaen         | El Cajon, CA        | Sharon Lai          | San Diego, CA              |
| Julie Klabin        | Los Angeles, CA     | Stephanie Laman     | San Diego, CA              |
| Renee Klein         | Marina Del Rey, CA  | David Lamiquiz      | Mountain View, CA          |
| Linda Klein         | El Segundo, CA      | Dennis Landi        | Los Angeles, CA            |
| Diana Kliche        | Long Beach, CA      | Jesse Landry        | Carmel Valley, CA          |
| Harry Knapp         | Riverside, CA       | Marisa Landsberg    | Manhattan Beach, CA        |
| Kendra Knight       | Millbrae, CA        | Carol Landsberg     | Corona del Mar, CA         |
| Kerry Ko            | Torrance, CA        | Debra Lane          | Fort Bragg, CA             |
| Valerie A Kobal     | VINEBURG, CA        | John Lango          | Berkeley, CA               |
| Valeria Kobzak      | Los Angeles, CA     | Jason Lannum        | Pittsburg, CA              |
| Bridget Kochtimothy | Sacramento, CA      | Kenneth Lapointe    | Los Angeles, CA            |
| Diana Koeck         | Costa Mesa, CA      | Joann Lapolla       | San Diego, CA              |
| Karl Koessel        | Mckinleyville, CA   | Venetia Large       | Altadena, CA               |
| Ellen Koivisto      | San Francisco, CA   | Nad Larsen          | San Juan Capistrano, CA    |
| Vanessa Kong        | Hillsborough, CA    | Elaine Larson       | Sonoma, CA                 |
| Marilyn Konish-Dunn | Woodland, CA        | R Dene Larson Jr    | San Francisco, CA          |
| Jennifer Kopczynski | Camarillo, CA       | Natacha Lascano     | Rocklin, CA                |
| Lorrin Koran        | STANFORD, CA        | Lily Lau            | Sacramento, CA             |
| Kathy Kosinski      | Goleta, CA          | Lisa Laureta        | Los Angeles, CA            |
| Rick Koury          | Los Gatos, CA       | Seth Laursen        | Los Angeles, CA            |
| Leslie Kowalczyk    | Sonora, CA          | Kathleen Lavelle    | Los Angeles, CA            |
| Ann Kowaleski       | Los Angeles, CA     | Marilyn Lavender    | Los Angeles, CA            |
| Cheryl Kozanitas    | San Mateo, CA       | Carol Lawrence      | Mckinleyville, CA          |
| Cathy Kraus         | North Hollywood, CA | Scott Laxier        | Del Rey Oaks, CA           |

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|---------------------------|---------------------|-----------------------|---------------------|
| Jamie Le                  | Alameda, CA         | Elizabeth Levy        | Richmond, CA        |
| Donna Leach               | San Anselmo, CA     | Nora Lewis            | Nipomo, CA          |
| Katherine Leahy           | Castro Valley, CA   | Patricia Lewis        | Los Angeles, CA     |
| Jan Leath                 | Glendale, CA        | Fred Lewis            | Mount Shasta, CA    |
| Harlan Lebo               | La Mirada, CA       | Denise Leyda          | Newark, CA          |
| Karyn Lebrun              | Escondido, CA       | Louise Lieb           | Sebastopol, CA      |
| C Ledesma                 | slt, CA             | Jessica Likens        | Buena Park, CA      |
| Wendy Ledner              | Salinas, CA         | Kortney Lillestrand   | Laguna Beach, CA    |
| Audrey Lee                | Lodi, CA            | David Lin             | San Francisco, CA   |
| Richard Lee               | Salinas, CA         | Emily Lin             | San Diego, CA       |
| Brenda Lee                | Lakewood, CA        | Kathy Linale          | Napa, CA            |
| Susie Lee                 | Fullerton, CA       | Stephanie Linam       | Benicia, CA         |
| Hansol Lee                | Pasadena, CA        | Vince Lindain         | Fremont, CA         |
| Stacy Lee                 | Los Gatos, CA       | Connie Lindgren       | Arcata, CA          |
| Nancy Leech               | East Palo Alto, CA  | James Lindgren        | Cerritos, CA        |
| Cindy Leerer              | Berkeley, CA        | Bill Lindner          | San Rafael, CA      |
| Rose Leidolph             | Citrus Heights, CA  | Johanna Lindsay       | Fremont, CA         |
| Lannon Leiman             | Berkeley, CA        | Bev Lips              | San Francisco, CA   |
| Miriam Leiseroff          | San Jose, CA        | Florence Litton       | Valley Center, CA   |
| Anne Leisure              | Irvine, CA          | Elaine Livesey-Fassel | Los Angeles, CA     |
| Nicholas Lenchner         | Santa Rosa, CA      | John Livingston       | Redding, CA         |
| C Leonard                 | san bernardino, CA  | Pamela Llewellyn      | Berkeley, CA        |
| Lauren Leonarduzzi        | Monterey, CA        | Colleen Lobel         | San Diego, CA       |
| Bob Leppo                 | Pismo Beach, CA     | Lynn Locher           | Fremont, CA         |
| Lynne Lerner              | Van Nuys, CA        | Abby Loeb             | Porter Ranch, CA    |
| Larry Lerner              | Newport Beach, CA   | Valerie Longo         | Pasadena, CA        |
| Linda Leruth              | Encinitas, CA       | Marco Loo             | Escobdido, CA       |
| Va Leslie                 | Milpitas, CA        | Chris Loo             | Morgan Hill, CA     |
| Leslie Leslie             | Mill Valley, CA     | Andrea Loperena       | Burbank, CA         |
| Elizabeth Leslie-Gassaway | El Dorado Hills, CA | Holly Lopez           | Sherman Oaks, CA    |
| Joy Lesperance            | Clovis, CA          | Abel Lopez            | Santa Rosa, CA      |
| Carol Leuenberger         | Elk Grove, CA       | Stefano Lorenzini     | Chino Hills, CA     |
| Michelle Leung            | Berkeley, CA        | Catherine Loudis      | San Anselmo, CA     |
| Julie Levenbach           | Palo Alto, CA       | Jacklyn Loughbom      | Manhattan Beach, CA |
| Harriet Levenson          | Tarzana, CA         | Marion Love           | Eureka, CA          |
| Paul Levesque             | San Diego, CA       | Douglas Lowe          | Richmond, CA        |
| Jeff Levicke              | V Village, CA       | Marsha Lowry          | El Sobrante, CA     |
| Marilyn Levine            | Mountain View, CA   | Diana Lubin           | La Mesa, CA         |
| Molly Levine              | Paso Robles, CA     | Janie Lucas           | San Francisco, CA   |
| John Levine               | LOS ANGELES, CA     | Daniel Lucchesi       | Rohnert Park, CA    |
| Sandra Levine Md          | San Rafael, CA      | Judy Lukasiewicz      | Santa Cruz, CA      |
| Barbara Levinson          | mill valley, CA     | Evita Luna            | GLENDALE, CA        |
| Lacey Levitt              | San Diego, CA       | James Lundeen         | Sonora, CA          |



|                   |                       |                     |                             |
|-------------------|-----------------------|---------------------|-----------------------------|
| Jimmie Lunsford   | San Diego, CA         | Sherry Marsh        | Oceanside, CA               |
| Andy Lupenko      | Lemon Grove, CA       | Raymond Marshall    | Foresthill, CA              |
| Lynn Luther       | Santa Rosa, CA        | Jaime Marshall      | Santa Monica, CA            |
| Rick Luttmann     | Rohnert Park, CA      | Heather Marshall    | Santa Barbara, CA           |
| Heather Lutz      | Carlsbad, CA          | Amy Marshall        | San Diego, CA               |
| Thomas Lux        | San Leandro, CA       | Nancy Martin        | Palo Alto, CA               |
| R Lynch           | Monterey, CA          | Ben Martin          | Mountain View, CA           |
| Susan Lynch       | Pacific Palisades, CA | Paula Martin        | PASO ROBLES, CA             |
| Jessica Lyons     | Castro Valley, CA     | Jamie Martin        | Mission Viejo, CA           |
| Pamela Lyons      | Corning, CA           | Tyson Martin        | Burbank, CA                 |
| Cheryl Lysy       | San Diego, CA         | Jamie Martin        | Mission Viejo, CA           |
| George Lysy       | San Diego, CA         | C. Martinez         | San Diego, CA               |
| Kare M            | BH, CA                | Melissa Martinez    | Los Angeles, CA             |
| Keiko M           | Concord, CA           | Andra Marx-Krajchir | North Hills, CA             |
| Noah Mabon        | Atwater, CA           | Marie Mason         | Simi Valley, CA             |
| Benjamin Mach     | San Leandro, CA       | Bisanne Masoud      | North Hollywood, CA         |
| Sherry Macias     | Sacramento, CA        | Carolyn Matini      | San Diego, CA               |
| Donald Mackay     | South Pasadena, CA    | Sharon Mattern      | Palm Desert, CA             |
| Lawrie Macmillan  | Modesto, CA           | Casee Maxfield      | Los Angeles, CA             |
| Bonnie Macraith   | Arcata, CA            | Victoria Maxson     | Mountain View, CA           |
| Janet Mactague    | Aliso Viejo, CA       | Dana May            | Garden Grove, CA            |
| Bryan Maddan      | Palm Desert, CA       | John Maybury        | Moss Beach, CA              |
| Susanne Madden    | Playa Del Rey, CA     | Cynthia Mayes       | Pollock Pines, CA           |
| Pamela Magathan   | Los Angeles, CA       | Monica Mayes        | San Diego, CA               |
| Julie Magilen     | PITTSBURG, CA         | Katherine Maynard   | Pacific Palisades, CA       |
| Mario Magpale     | Palmdale, CA          | Denise Mayosky      | San Jose, CA                |
| John Maher        | Claremont, CA         | Kathryn Mazaika     | San Francisco, CA           |
| Gina Mahmoud      | San Francisco, CA     | David Mazariegos    | Folsom, CA                  |
| Victor Maisano    | San Diego, CA         | Mary Mcauliffe      | Los Angeles, CA             |
| Janet Maker       | Los Angeles, CA       | Bill Mcbain         | Ladysmith, CA               |
| Sheila Malone     | Santa Cruz, CA        | Anne Mcbride        | Auburn, CA                  |
| Marcus Maloney    | Sacramento, CA        | Ellen Mccann        | Escondido, CA               |
| Ilene Malt        | San Anselmo, CA       | Janelle Mccarthy    | Newark, CA                  |
| Ted Maltin        | Fresno, CA            | Cynthia Mccarthy    | Rancho Mission Viejo,<br>CA |
| Robert Mantia     | San Francisco, CA     | Lauren Mccarthy     | Malibu, CA                  |
| Patricia Marchant | Castro Valley, CA     | Karen Mccaw         | View Park, CA               |
| Cindy Marconi     | Brentwood, CA         | Barney Mccomas      | San Diego, CA               |
| Martin Marcus     | San Diego, CA         | Tom Mccown          | Los Angeles, CA             |
| Michael Margulis  | Valencia, CA          | Maryann Mccoy       | Torrance, CA                |
| Kevin Markoe      | Watsonville, CA       | Tami Mccready       | Simi Valley, CA             |
| Connie Marquez    | Santa Barbara, CA     | Kimberly Mccullough | San Jose, CA                |
| Bruce Marquez     | Whittier, CA          | Shereen Mcdade      | Los Angeles, CA             |
| Joe Marsala       | Fairfield, CA         |                     |                             |

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| Evan Mcdermit      | Fullerton, CA        | Suzanne Menne      | Camarillo, CA       |
| Pamela Mcdonald    | Riverside, CA        | Nicole Mervis      | San Clemente, CA    |
| Joseph Mcdonough   | Hemet, CA            | Twyla Meyer        | Pomona, CA          |
| Denise Mcevoy      | San Francisco, CA    | Jacqueline Meyer   | Foster City, CA     |
| Nancy Mcginnis     | San Francisco, CA    | T Meyer            | Woodland, CA        |
| Kerri Mcgoldrick   | Castro Valley, CA    | Anna Meyer         | Los Angeles, CA     |
| Jane Mcgraw        | San Bernardino, CA   | Greta Meyerhof     | San Clemente, CA    |
| Shayna Mcgrew      | Diamond Springs, CA  | Adrienne Micco     | Vacaville, CA       |
| Jeanine Mcguinness | Long Beach, CA       | Karen Michels      | San Francisco, CA   |
| Heather Mchugh     | Oakland, CA          | Sue Michelson      | Studio City, CA     |
| Patricia Mchugh    | Monterey, CA         | Patti Mickelsen    | Laguna Beach, CA    |
| Cynthia Mchugh     | La Mesa, CA          | Neale Miglani      | Danville, CA        |
| John Mckee         | Reseda, CA           | Jerrilyn Miller    | North Hollywood, CA |
| Daniel Mckeighen   | Rocklin, CA          | Aaron Miller       | Valley Glen, CA     |
| James Mckelvey     | Santa Clarita, CA    | Janet Miller       | Sherman Oaks, CA    |
| Conor Mckeown      | San Jose, CA         | Corinne Miller     | EL CAJON, CA        |
| Monica Mckey       | Sonoma, CA           | Kellie Miller      | Orange, CA          |
| Laura Mckinney     | Los Angeles, CA      | John Miller        | Costa Mesa, CA      |
| Pamela Mckown      | Kensington, CA       | Robert Miller      | Imperial Beach, CA  |
| Michael Mcmahan    | Huntington Beach, CA | Richard Miller     | NV City, CA         |
| Philip Mcmorrow    | Calabasas, CA        | Victoria Miller    | Encino, CA          |
| Nina Mcnitzky      | Redwood City, CA     | Rhianna Miller     | Santa Rosa, CA      |
| Johanna Mcshane    | Walnut Creek, CA     | Laurel Miller      | Santa Cruz, CA      |
| Barbara Mcvein     | Vista, CA            | Rebecca Miller     | Menifee, CA         |
| Dennis Mcvey       | Kentfield, CA        | Ann Miller         | San Jose, CA        |
| Jacqueline Mcvicar | San Diego, CA        | Tulsi Milliken     | Fallbrook, CA       |
| Pattie Meade       | San Clemente, CA     | Erin Millikin      | San Diego, CA       |
| Ed Mechem          | Oakland, CA          | Randy Mills        | Culver City, CA     |
| Deborah Medina     | Calistoga, CA        | Catherine Mills    | Hayward, CA         |
| Don Meehan         | San Jose, CA         | Catherine Milovina | Hopland, CA         |
| Bonnie Meek        | Arcadia, CA          | Jack Milton        | Davis, CA           |
| Dennie Mehocich    | San Rafael, CA       | Barbara Mintz      | Encinitas, CA       |
| Susan Mehrings     | San Francisco, CA    | Rocio Miranda      | Oakland, CA         |
| Adil Mehta         | Chatsworth, CA       | Maria Miranda      | Santa Ana, CA       |
| Robert Meier       | Los Angeles, CA      | Dorothy Mirmak     | Yorba Linda, CA     |
| Marianna Mejia     | Soquel, CA           | Jill Mistretta     | Kentfield, CA       |
| Lily Mejia         | Hemet, CA            | Michal Mitchell    | Ojai, CA            |
| Ron Melin          | Trinidad, CA         | Desiree Mitchell   | San Francisco, CA   |
| Jana Menard        | South Lake Tahoe, CA | Hannah Mitchell    | Sacramento, CA      |
| Mika Menasco       | San Diego, CA        | Cody Mitcheltree   | Yorba Linda, CA     |
| Teri A Menchini    | Danville, CA         | Robert Mizar       | Bodega Bay, CA      |
| Scott Mendelsohn   | Novato, CA           | Nico Mmcafee       | Tiburon, CA         |

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 Marie Mock Fresno, CA  
 Deimile Mockus Los Angeles, CA  
 Elizabeth Moellenhoff San Diego, CA  
 Allison Moffett Pasadena, CA  
 Bianca Molgora San Francisco, CA  
 Arthur Molho Placerville, CA  
 Nelson Molina Buena Park, CA  
 Lucy Mon Citrus Heights, CA  
 Ann Monaco Simi Valley, CA  
 C E Mone Trinidad, CA  
 Janet Monfredini San Francisco, CA  
 Bruce Monfross Fair Oaks, CA  
 Cindy Monge Huntington Park, CA  
 Dana Monroe National City, CA  
 James Monroe Concord, CA  
 Anthony Montapert Santa Maria, CA  
 Deborah Montero West Sacramento, CA  
 Elaine Mont-Eton San Rafael, CA  
 Shannon Montoya Rohnert Park, CA  
 Ian And Janeane Moody San Rafael, CA  
 Tim Moore Coarsegold, CA  
 David Moore Los Angeles, CA  
 John Moreau San Leandro, CA  
 Lynn Moreau San Leandro, CA  
 Sharon Moreno Sacramento, CA  
 H. Moreno Valley Springs, CA  
 Lorilie Morey Santa Rosa, CA  
 Dan Morgan Rosamond, CA  
 Dorothea Morgenstern Sacramento, CA  
 Darlene Morris Yucca Valley, CA  
 Melvis Morris San Marcos, CA  
 Kent Morris Fullerton, CA  
 Lynn Morse Irvine, CA  
 Jeffery Morton Marina, CA  
 Robin Morton Sebastopol, CA  
 Paula Moseley Oakland, CA  
 Mark Mosley Northridge, CA  
 Carol Moss Sacramento, CA  
 Karin Motsch Colfax, CA  
 Sally Mountain Lakeport, CA  
 Karsten Mueller Santa Cruz, CA  
 Lindsay Mugglestone Berkeley, CA

Jill Mulato Dana Point, CA  
 Sharon Mulkey Oceano, CA  
 Glenn Mullins Buena Park, CA  
 Amy Munnely Irvine, CA  
 George Munoz Stockton, CA  
 Lauren Murdock Santa Barbara, CA  
 Dana Murphy La Mesa, CA  
 Barbara Murray Los Angeles, CA  
 Joan Murray Los Angeles, CA  
 Ashley Musick Bakersfield, CA  
 Robert Mutascio Venice, CA  
 Adele Myers Meadow Valley, CA  
 Donna Myers Citrus Heights, CA  
 Jane Nachazel-Ruck Los Angeles, CA  
 John Nadolski Antelope, CA  
 Kenneth Nahigian Sacramento, CA  
 Karen Naifeh San Mateo, CA  
 Raquel Narvios San Francisco, CA  
 Gida Naser Vacaville, CA  
 Thomas Nash Rancho Mirage, CA  
 Joann Naso Los Angeles, CA  
 Utkarsh Nath Fremont, CA  
 Janet Naugle Fresno, CA  
 Laurie Neill Smith River, CA  
 Mary Nelsen Redondo Beach, CA  
 Brad Nelson Oxnard, CA  
 L Nelson Morgan Hill, CA  
 Paul Nelson Camarillo, CA  
 Elena Nelson San Jose, CA  
 Victor Nepomnyashchy North Hills, CA  
 Kim Nero Costa Mesa, CA  
 Gina Ness Eureka, CA  
 Robbi Nester Lake Forest, CA  
 Melody Neuenburg Chico, CA  
 Alice Neuhauser Manhattan Beach, CA  
 Edward Neville Hayward, CA  
 Laura Newton Cathedral City, CA  
 Du Ng San Jose, CA  
 Guy Nguyen Costa Mesa, CA  
 Alice Nguyen San Jose, CA  
 Eric Nichandros Castro Valley, CA  
 Debra Nichols Palmdale, CA  
 Kim Nicholson Toluca Lake, CA

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| Nancy Nilssen         | Dublin, CA          | June Osbourn        | Sonoma, CA          |
| Kristin Niswonger     | Bakersfield, CA     | Karen Osgood        | CITRUS HEIGHTS, CA  |
| Pamela Nitsos         | Fremont, CA         | Pamela Osgood       | SF, CA              |
| James Noordyk         | San Diego, CA       | Linda Oster         | Escondido, CA       |
| Kristin Norby         | North Hollywood, CA | Hillary Ostrow      | Encino, CA          |
| Valerie Nordeman      | Laytonville, CA     | Dianne Ostrow       | Wrightwood, CA      |
| Paul Norup            | Crescent City, CA   | Marty Otero         | Ventura, CA         |
| Ursula Noto           | Burbank, CA         | Meera P             | Fremont, CA         |
| Maria Nowicki         | San Francisco, CA   | Melody Padget       | Pine Valley, CA     |
| Jann Noyes            | Wofford Heights, CA | Cinzia Paganuzzi    | Santa Monica, CA    |
| Tom Nulty             | Dana Point, CA      | John Paladin        | Valencia, CA        |
| Jean Nunamaker        | santee, CA          | Francisco Palau     | San Diego, CA       |
| Jennifer Nunes        | San Diego, CA       | Lavinia Pall        | San Diego, CA       |
| Stephanie Nunez       | Van Nuys, CA        | Allie Palmer        | San Clemente, CA    |
| Carlos Nunez          | Reseda, CA          | Aydee Palomino      | La Quinta, CA       |
| Kimberley Nunn        | Napa, CA            | Jim Panagos         | Simi Valley, CA     |
| Sandra Obleas         | Mission Viejo, CA   | Rosiris Paniagua    | Altadena, CA        |
| Kathy O'Brien         | Redway, CA          | Bonnie Pannell      | Crockett, CA        |
| Colleen O'Brien       | Sacramento, CA      | Megan Panovich      | Santa Rosa, CA      |
| April Ochoa           | Santa Rosa, CA      | Donna Panza         | Grass Valley, CA    |
| Melanie Oconnell      | North Hollywood, CA | Marie Pappas        | Berkeley, CA        |
| Maureen Oconnell      | Valley Village, CA  | Bhavani Param       | Concord, CA         |
| Gregg Oelker          | Altadena, CA        | Benjamin Park       | Stockton, CA        |
| Kathy Olavarri        | Los Gatos, CA       | Jason Park          | Arcadia, CA         |
| Jean Olds             | Dublin, CA          | Karen Parker        | San Jose, CA        |
| Jerry Oliver          | Sylmar, CA          | Cheryl Parkins      | Oakland, CA         |
| Kathleen Oliver       | San Jose, CA        | Janet Parkins       | Oakland, CA         |
| Frances Oliver        | Lodi, CA            | Cynthia Parnell     | Walnut Creek, CA    |
| Carol Oller           | Pinole, CA          | Ron Parsons         | S San Fran, CA      |
| Jeffery Olson         | Vista, CA           | Gracie Partida      | Napa, CA            |
| Liana Olson           | Carmel Valley, CA   | Anne Parzick        | Corona Del Mar, CA  |
| Krister Olsson        | Los Angeles, CA     | Richard Patenaude   | Hayward, CA         |
| Chris Omalley         | SAN DIEGO, CA       | Narendra Patni      | Palo Alto, CA       |
| Barbara Oman          | Carmel, CA          | Kevin Patterson     | Walnut Creek, CA    |
| Robert L. Oman        | Sylmar, CA          | Katherine Patterson | Ukiah, CA           |
| Chris Omeara Dietrich | San Jose, CA        | Lisa Patton         | San Francisco, CA   |
| Sheri Opp             | Sacramento, CA      | Barbara Patton      | SunNew Yorkvale, CA |
| Karen Ornelas         | San Pedro, CA       | Penn Patton         | Arcadia, CA         |
| Angel Orona           | Alhambra, CA        | Rachel Patz         | Lancaster, CA       |
| Karen Orourke         | Canoga Park, CA     | Deborah Paul        | Fountain Valley, CA |
| Henry Ortiz           | Whittier, CA        | Amy Payne           | Menlo Park, CA      |
| Robert Ortiz          | Novato, CA          | El Pe               | Talmage, CA         |

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| Juliet Pearson         | Grass Valley, CA      | Deanna Pini            | Santa Barbara, CA   |
| Sarah Peck             | Watsonville, CA       | Michelle Pinto-E-Costa | Glendale, CA        |
| Karin Peck             | Orangevale, CA        | Lynn Pique             | Redwood City, CA    |
| Andrew Pederson        | San Anselmo, CA       | Lynn Piquett           | Santa Cruz, CA      |
| Josh Pederson          | Santa Cruz, CA        | Tina Pirazzi           | Long Beach, CA      |
| Jeffrey Pekrul         | San Francisco, CA     | Maureen Pisani         | El Sobrante, CA     |
| Dr Kenneth R Pelletier | Carmel by the Sea, CA | Lauren Pliska          | Laguna Niguel, CA   |
| Tracy Pellonari        | Santa Rosa, CA        | Jeffrey Plotnik        | Hemet, CA           |
| Maree Penhart          | Oxnard, CA            | Andrew T Pohorsky      | Soquel, CA          |
| Megan Penland          | SunNew Yorkvale, CA   | Barbara Poland         | La Crescenta, CA    |
| Greg Pennington        | San Francisco, CA     | Cynthia Poland         | Perris, CA          |
| Linda Penrose          | Morro Bay, CA         | Alice Polesky          | San Francisco, CA   |
| Paige Pentecost        | Felton, CA            | Bret Polish            | Tarzana, CA         |
| Dean Peppard           | Downey, CA            | Jackie Pomies          | San Francisco, CA   |
| Dan Perdios            | Palm Springs, CA      | Bonnell Poole          | Hesperia, CA        |
| Paula Pereira          | Pittsburg, CA         | Samuel Popailo         | West Hollywood, CA  |
| Leticia Pereira        | LA, CA                | Susan Porter           | Pasadena, CA        |
| Margarita Perez        | Sylmar, CA            | Sharon Porter          | Paradise, CA        |
| Deborah Peri           | Santa Cruz, CA        | Penny Porter           | San Francisco, CA   |
| Vicki Perizzolo        | Riverside, CA         | Cheri Porter-Keisner   | Piercy, CA          |
| Janet Perlman          | Berkeley, CA          | Smith Portman          | Beverly Hills, CA   |
| Bryce Perog            | Dana Point, CA        | Smith Portman          | Beverly Hills, CA   |
| Anthony Perry          | Woodland, CA          | Susan Posner           | Oceanside, CA       |
| Lee Perry              | Watsonville, CA       | James Post             | El Dorado Hills, CA |
| Marie Perry            | Ceres, CA             | Rus Postel             | San Rafael, CA      |
| Brenda Perry           | Napa, CA              | Penny Potter           | Santa Cruz, CA      |
| Sioux Perry            | San Francisco, CA     | Elisabeth Potts        | Santa Cruz, CA      |
| Don Petersen           | Pleasanton, CA        | Matt Powell            | Woodland Hills, CA  |
| Stanley Peterson       | Los Banos, CA         | Cindy Powell           | Newport Beach, CA   |
| Peter Peterson         | Walnut Creek, CA      | Kim Powell             | Bermuda Dunes, CA   |
| Kim Peterson           | Cloverdale, CA        | Judith Poxon           | Sacramento, CA      |
| Christine Peterson     | San Francisco, CA     | Kamal Prasad           | Hayward, CA         |
| Susan L Petrella       | Fullerton, CA         | Brooke Prather         | Kelseyville, CA     |
| Kathleen Petty         | Lompoc, CA            | Wendy Pratt            | Redondo Beach, CA   |
| Margaret Phelps        | Los Angeles, CA       | Lynne Prefontaine      | Alameda, CA         |
| Sonja Phillips         | Los Angeles, CA       | Lynne Preston          | San Francisco, CA   |
| Marvis J. Phillips     | San Francisco, CA     | Terry Preston          | Castro Valley, CA   |
| Deborah Phillips       | Ukiah, CA             | Ron Price              | Ontario, CA         |
| Angelina Phillips      | Santa Barbara, CA     | Marilyn Price          | Mill Valley, CA     |
| Vanna Pichel           | Petaluma, CA          | Fiona Priskich         | Swan View, CA       |
| Seth Picker            | Diamond Springs, CA   | Nora Privitera         | Oakland, CA         |
| Marco Pierantoni       | Santa Monica, CA      | Penelope Prochazka     | Simi Valley, CA     |
| Kevin Pierson          | Roseville, CA         | Carole Proctor         | Oakland, CA         |

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| Martha Proctor       | Inverness, CA        | Matthew Reid         | Calistoga, CA           |
| Micaela Pronio       | Oakland, CA          | Anna Reinhardt       | La Mesa, CA             |
| Kamela Proulx        | Los Osos, CA         | Paul Reiser          | Camarillo, CA           |
| Felena Puentes       | Bakersfield, CA      | Sylvia Ren           | Sebastopol, CA          |
| Brianda Puig         | Los Angeles, CA      | Kurt Renfro          | San Juan Capistrano, CA |
| Lauren Pullano       | Los Angeles, CA      | Simon Renggli        | Los Angeles, CA         |
| Mengshang Qiu        | Arcadia, CA          | Matt Reola           | San Clemente, CA        |
| Robert Quarrick      | Benicia, CA          | Benjamin Retamal     | Palm Springs, CA        |
| Jennifer Quednau     | Sherman Oaks, CA     | Karin Rettig         | Hemet, CA               |
| Susan Quickel        | Tracy, CA            | F. Carlene Reuscher  | Costa Mesa, CA          |
| Aida Quiles          | San Jacinto, CA      | Mike Reyes           | Los Angeles, CA         |
| Laurie Quintel       | Gilroy, CA           | Christian Reyes      | Moreno Valley, CA       |
| Angel Quiroz         | Garden Grove, CA     | Lloyd Reynolds       | Fountain Valley, CA     |
| Heather R            | Long Beach, CA       | Ruth Rezos           | Sacramento, CA          |
| Paul Rabjohns        | Los Angeles, CA      | Janet Rhodes         | Temecula, CA            |
| John Rafter          | Pico Rivera, CA      | Robert Ricewasser    | Monrovia, CA            |
| Mary Ragsdale        | Ripon, CA            | Lonna Richmond       | Muir Beach, CA          |
| Navneet Ramachandran | MOUNTAIN VIEW, CA    | Dennis Rickard       | Fresno, CA              |
| Hank Ramirez         | San Diego, CA        | Lisa Ridge           | Novato, CA              |
| Gabriela Ramirez     | San Diego, CA        | Jean Riehl           | Fairfield, CA           |
| Sue Ramirez          | San Francisco, CA    | Tessa Rife           | San Francisco, CA       |
| Yvonne Ramond        | Van Nuys, CA         | Callie Riley         | Citrus Heights, CA      |
| Eury Ramos           | Hayward, CA          | Laura Riley          | Citrus Heights, CA      |
| Rudy Ramp            | Arcata, CA           | Sandra Riley         | Claremont, CA           |
| Walter Ramsey        | Oakley, CA           | Ronald Ringle        | Garden Grove, CA        |
| Elizabeth Ramsey     | Davis, CA            | Marianna Riser       | Novato, CA              |
| Renate Rand          | Oakland, CA          | Michaele Risolia     | Livermore, CA           |
| Dee Randolph         | Chico, CA            | Briana Rivera        | San Diego, CA           |
| William Rankin       | Huntington Beach, CA | Arleth Rivera        | Costa Mesa, CA          |
| Leslie Rapp          | San Diego, CA        | Michael Rivero       | San Diego, CA           |
| Greg Ratkovsky       | Oakland, CA          | Richard Robbins      | San Rafael, CA          |
| Nicholas Ratto       | Alameda, CA          | Natasha Robbins      | San Francisco, CA       |
| Jenise Rauser        | Oildale, CA          | Margaret Roberts     | Mendocino, CA           |
| Dorothy Ravine       | Hemet, CA            | Jacquelyn Roberts    | Tehachapi, CA           |
| Marianne Ray         | Ontario, CA          | Laura Robichek       | SunNew Yorkvale, CA     |
| Bianca Raya          | Anaheim, CA          | Etta Robin           | Bakersfield, CA         |
| Joyce Raye           | Salinas, CA          | Leslie Robins        | San Diego, CA           |
| Mark Reback          | Los Angeles, CA      | Suzanne Rocca-Butler | Menlo Park, CA          |
| Edward Redig         | Paso Robles, CA      | Candace Rocha        | Los Angeles, CA         |
| Isela Redman         | Rohnert Park, CA     | Silvia Rocha         | Azusa, CA               |
| Robert Reed          | Laguna Beach, CA     | David Roche          | San Francisco, CA       |
| Mary Reed            | Sebastopol, CA       | Donald Rock          | Oceanside, CA           |
| Don Reh              | Auburn, CA           | Phil Rockey          | Aptos, CA               |

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| Colleen Rodger     | El Sobrante, CA           | Kathy Sampognaro    | Sampognaro Morgan Hill, CA |
| Jean Rodgers       | Rolling Hills Estates, CA | Marian Samson       | Danville, CA               |
| Sharon Rodrigues   | Fremont, CA               | Dorothy Sanches     | Gustine, CA                |
| Macrina Rodriguez  | Sacramento, CA            | Jennifer Sanches    | Santa Cruz, CA             |
| Maria Rodriguez    | Chino Hills, CA           | David Sanches       | Gustine, CA                |
| Nanette Roeland    | Valley Center, CA         | Sylvia Sanchez      | San Jose, CA               |
| Margaret Rogers    | Redwood City, CA          | Diana Sanchez       | Fillmore, CA               |
| Pamela Rogers      | San Bernardino, CA        | Pamela Sandberg     | Fort Bragg, CA             |
| Mary Rojeski       | Santa Monica, CA          | Rosario Sandel      | Reseda, CA                 |
| Kalyani Roldan     | Santa Barbara, CA         | Kathleen Sanders    | Susanville, CA             |
| Valerie Romero     | Los Angeles, CA           | Terry Sandoval      | Bakersfield, CA            |
| Justin Romero      | Rancho Cucamonga, CA      | B Sandow            | Richmond, CA               |
| Irene Roos         | Lakeside, CA              | Sean Sanjose        | San Francisco, CA          |
| Greg Rosas         | Castro Valley, CA         | Harry Santi         | San Leandro, CA            |
| Sheryl Rose        | Berkeley, CA              | Nino Santiago       | Santee, CA                 |
| Ken Rosen          | Beverly Hills, CA         | Deborah Santone     | Pleasant Hill, CA          |
| Amanda Rosenberg   | Oakland, CA               | Alfa Santos         | Chula Vista, CA            |
| Stephen Rosenblum  | Palo Alto, CA             | Rita Santos         | Long Beach, CA             |
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| Gregory Ross       | San Leandro, CA           | Michael Sarabia     | Stockton, CA               |
| Rob Rowan          | Irvine, CA                | Deborah Sargent     | San Diego, CA              |
| Vickie Rozell      | Menlo Park, CA            | Vicki Sarnecki      | Bangor, CA                 |
| Carolina Rozo      | Los Angeles, CA           | Carole Sartenaer    | Berkeley, CA               |
| Rita Rubin         | El Cerrito, CA            | Julie Sasaoka       | Concord, CA                |
| Lois Ruble         | San Marcos, CA            | Rondi Saslow        | Oakland, CA                |
| Dianna Ruggiero    | San Diego, CA             | Rondi Saslow        | Oakland, CA                |
| George Ruiz        | San Carlos, CA            | Anna Sasser         | Santa Cruz, CA             |
| M. K. Russell      | Mill Valley, CA           | Antonina Scalera    | Altadena, CA               |
| Robert Russo       | Glendora, CA              | Kevin Schader       | Pleasant Hill, CA          |
| Brian Rutkin       | Culver City, CA           | Carol Schaffer      | San Pablo, CA              |
| Elvia Ryan         | Oceanside, CA             | Susan Schairer      | Anaheim, CA                |
| Faye Rye           | Torrance, CA              | Roxann Schaubhut    | Pope Valley, CA            |
| Laurie S           | Beverly Hills, CA         | Douglas Scheel      | Los Osos, CA               |
| Ravi S             | Los Angeles, CA           | Barbara Scheinman   | Mission Viejo, CA          |
| Jessica M Saavedra | Tustin, CA                | Mary Scheller       | Santa Cruz, CA             |
| Sharan Sacks       | Lake Forest, CA           | Janice Schenfisch   | Moorpark, CA               |
| Bonnie Sadrpour    | Los Angeles, CA           | Lauren Schiffman    | El Cerrito, CA             |
| Joanne Sajdak      | Pasadena, CA              | Bob Schildgen       | Berkeley, CA               |
| Jan Salas          | Santa Cruz, CA            | Paulette Schindele  | San Marcos, CA             |
| Alicia Salazar     | Los Angeles, CA           | Steven Schlam       | San Diego, CA              |
| Lisa Salazar       | Shasta Lake, CA           | William Schlesinger | Los Angeles, CA            |
| Mario Salgado      | Anaheim, CA               | Hank Schlinger      | Glendale, CA               |

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| Heidi Schmitz       | Sausalito, CA           | Julie Shaw           | Sebastopol, CA                |
| Suzanne Schmutz     | Oakland, CA             | Connelee Shaw        | San Jose, CA                  |
| George Schneider    | San Diego, CA           | Diane Shaw           | CaNew Yorkon Country,<br>CA   |
| Jerry Schneider     | Los Angeles, CA         | Al Shayne            | Los Angeles, CA               |
| Joanne Schneider    | Bishop, CA              | Sarah Sheets         | Mariposa, CA                  |
| Diane Schnitzer     | Hemet, CA               | Gabriel Sheets       | Mariposa, CA                  |
| Steven Schoenberg   | Los Angeles, CA         | Margaret Shekell     | Los Angeles, CA               |
| William Schoene     | Santa Monica, CA        | Kacie Shelton        | Pasadena, CA                  |
| Anna Schofield      | Los Angeles, CA         | Ye Shen              | Daly City, CA                 |
| Sueann Schoonmaker  | Long Beach, CA          | Margo Sherbainbridge | Mckinleyville, CA             |
| Nancy Schubarth     | San Jose, CA            | Candace Sherlock     | Culver City, CA               |
| Greg Schuett        | Julian, CA              | Lisa Sherman         | Berkeley, CA                  |
| Brandy Schumacher   | Citrus Heights, CA      | Erika Shershun       | SF, CA                        |
| Laura Schuman       | Sherman Oaks, CA        | Deborah E Shields    | Laguna Beach, CA              |
| Karen Schuppert     | San Ysidro, CA          | Robert Shillato      | CAMERON PARK, CA              |
| Jeanne Schuster     | West Covina, CA         | Earl Shimaoka        | SunNew Yorkvale, CA           |
| Marge Schwartz      | Santa Barbara, CA       | Delia Shirts         | yuba city, CA                 |
| Dena Schwimmer      | Los Angeles, CA         | Veronika Shishido    | Bayside, CA                   |
| M Scott             | Los Angeles, CA         | Rosemarie Shishkin   | San Francisco, CA             |
| Kari Lorraine Scott | San Diego, CA           | Judy Shively         | San Diego, CA                 |
| Joan Scott          | Joshua Tree, CA         | Zoe Shoats           | Pacific Grove, CA             |
| Neil Scott          | Catheys Valley, Ca., CA | Lula Shoberg         | San Jose, CA                  |
| Chris Seaton        | santa barbara, CA       | Ari Shofet           | Los Angeles, CA               |
| Laura J Seed        | San Diego, CA           | Tracy Shortle        | Los Alamitos, CA              |
| Harold Segelstad    | WOODSIDE, CA            | Beheroze Shroff      | Irvine, CA                    |
| Lisa Segnitz        | Santa Cruz, CA          | Carolyn Shuman       | San Francisco, CA             |
| Mary Jill Seibel    | Petaluma, CA            | Nancy Sidebotham     | Oakland, CA                   |
| Steven Seiberlich   | Somerset, CA            | Pamela Sieck         | Tiburon, CA                   |
| Fredrick Seil       | Berkeley, CA            | Martha Siegel        | Santa Barbara, CA             |
| Jennifer Sellers    | Concord, CA             | Jeff Sierra          | Emeryville, CA                |
| Rob Seltzer         | Malibu, CA              | Dg Sifuentes         | Mammoth Lakes, CA             |
| Ronald Semenza      | San Jose, CA            | Sheila Silan         | Somerset, CA                  |
| Albert Sena         | San Diego, CA           | Laurette Silva       | Fresno, CA                    |
| Sana Sethi          | San Jose, CA            | Grace Silva          | North Hollywood, CA           |
| Krista Sexton       | San Marcos, CA          | Victoria Silver      | Irvine, CA                    |
| Janette Shablow     | Sebastopol, CA          | Marc Silverman       | LA, CA                        |
| Susan Shackman      | Santa Cruz, CA          | Kathy Simington      | Ontario, CA                   |
| Erik Shank          | Woodland, CA            | Joyce Simonds        | Temecula, CA                  |
| Victoria Shankling  | Aliso Viejo, CA         | Errol Simpson        | Walnut Creek, CA              |
| Avi Shaprut         | San Diego, CA           | Charlotte Sines      | Yosemite National Park,<br>CA |
| Donna Sharee        | San Francisco, CA       |                      |                               |
| Chip Sharpe         | Bayside, CA             |                      |                               |



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|------------------|----------------------------|---------------------|-------------------|
| Jerry Singer     | San Francisco, CA          | Rick Spar           | Toluca Lake, CA   |
| Randle Sink      | Huntington Beach, CA       | Michelle Spargillis | Solvang, CA       |
| Lyn Sinko        | Menlo Park, CA             | Angela Spaw         | Laguna Niguel, CA |
| Lara Sinkovich   | Los Angeles, CA            | Glynnes Speak       | Fullerton, CA     |
| Ellen Sirbu      | Oakland, CA                | Dr Spencer          | San Diego, CA     |
| Mila Siric       | Los, CA                    | Brent Spencer       | Paramount, CA     |
| Gabriele Sisk    | Newark, CA                 | Barbara Spencer     | Lake Forest, CA   |
| Sarah Sismondo   | Duarte, CA                 | Amy Spencer         | Grass Valley, CA  |
| Michael Sixtus   | Santee, CA                 | Gayle Spencer       | Menlo Park, CA    |
| Darcy Skarada    | Kelseyville, CA            | Anne Spesick        | Cool, CA          |
| Jomay Skeoch     | Napa, CA                   | Richard Spicer      | North Tustin, CA  |
| Kevin Slauson    | Alameda, CA                | Sheryl Spigel       | Beverly Hills, CA |
| Cathy Sleva      | Seal Beach, CA             | Jane Spini          | Arcata, CA        |
| Lindley Sloan    | Monterey, CA               | Jon Spitz           | Laytonville, CA   |
| Susan Sloan      | Los Angeles, CA            | Mandy Spitzer       | Santa Cruz, CA    |
| Terry Slotnick   | San jose, CA               | Leslie Spoon        | Los Osos, CA      |
| John Slovak      | Milpitas, CA               | Natalia Spornik     | Studio City, CA   |
| Judith Smith     | Oakland, CA                | A Srinivasan        | Altadena, CA      |
| Nancy Smith      | Malibu, CA                 | Kathryn St John     | Boulder Creek, CA |
| June Smith       | San Pedro, CA              | Marilyn Stachenfeld | Aliso Vejo, CA    |
| Leslie Smith     | Oakland, CA                | Sylvia Stachura     | San Gabriel, CA   |
| Joe Smith        | El Cajon, CA               | Ken Stack           | Los Angeles, CA   |
| Bret Smith       | Santa Cruz, CA             | Bettina Staib       | Los Angeles, CA   |
| Julie Smith      | Los Osos, CA               | Leigh Stamets       | Carmichael, CA    |
| Cynthia Smith    | Mission Viejo, CA          | Rachel Standish     | Stockton, CA      |
| Cristina Smith   | Los Angeles, CA            | Roxanne Staniorski  | Santa Ana, CA     |
| Kathleen Smith   | San Jose, CA               | Margaret Starbuck   | Pasadena, CA      |
| Richard Smith    | Aptos, CA                  | Rebecca Starr       | Fresno, CA        |
| Lance Smith      | Long Beach, CA             | Celia Stauty        | Pacific Grove, CA |
| Lori Smurthwaite | Long Beach, CA             | Karen Steele        | Eureka, CA        |
| Paula Sneddon    | Pebble Beach, CA           | Regina Stefaniak    | Berkeley, CA      |
| Robert Snyder    | Rancho Palos Verdes,<br>CA | Maria Steffen       | Willits, CA       |
| David Soares     | Pollock Pines, CA          | Richard Steiger     | Oakland, CA       |
| Faye Soares      | Pollock Pines, CA          | Cindy Stein         | Thousand Oaks, CA |
| Susan Soh        | Woodland Hills, CA         | Beth Stein          | Los Angeles, CA   |
| John Somers      | San Jose, CA               | Raymond Stein       | Grass Valley, CA  |
| Sherin Sonny     | Poway, CA                  | Karl Steinberg      | Newport Beach, CA |
| Joyce Sortland   | Grass Valley, CA           | Neal Steiner        | Los Angeles, CA   |
| Allison Souza    | San Diego, CA              | Gabriel Steinfeld   | Oakland, CA       |
| Jan Sownie       | Bellflower, CA             | Kat Stephens        | Santa Rosa, CA    |
| Katie Spahn      | Lakewood, CA               | Burney Stephens     | Mariposa, CA      |
| Margaret Spak    | Menlo Park, CA             | Lee Stevens         | Yucaipa, CA       |
|                  |                            | John Stewart        | Redway, CA        |

|                           |                   |                     |                     |
|---------------------------|-------------------|---------------------|---------------------|
| Karen Stewart             | San Jose, CA      | Michael Talbot      | San Rafael, CA      |
| Michael Stewart           | Elk Grove, CA     | Velma Talnadge      | Spring Valley, CA   |
| Hilary Stewart            | Mount Shasta, CA  | Ruben Tamamian      | Prather, CA         |
| Monica Stiglianostormo    | Lone Pine, CA     | Singgih Tan         | San Jose, CA        |
| Brian Still               | San Diego, CA     | Suzan Tankersley    | Pleasant Hill, CA   |
| Robert Stine              | San Francisco, CA | Carol Tao           | Salinas, CA         |
| Amy Stinstrom             | Sherman Oaks, CA  | Donna Tate          | Los Angeles, CA     |
| Wendy Stock               | Berkeley, CA      | Katie Tatro         | SunNew Yorkvale, CA |
| Linda Stock               | Cypress, CA       | Susan Tatro         | Eureka, CA          |
| Peggy Stone               | San Diego, CA     | Tammy Taunt         | OCEANSIDE, CA       |
| Helen Stone               | Gardena, CA       | Melvin Taylor       | Sacramento, CA      |
| Gwen Stone                | Mission Viejo, CA | Elaine Taylor       | Glendale, CA        |
| Faith Strailey            | Quincy, CA        | Carol Taylor        | Ojai, CA            |
| Katlyn Stranger           | San Rafael, CA    | Melinda Taylor      | Long Beach, CA      |
| Ann Stratten              | La Mesa, CA       | Rose Taylor         | San Francisco, CA   |
| Laura Strom               | Los Angeles, CA   | Pat Taylor          | Sacramento, CA      |
| Joel Strouss              | Kelseyville, CA   | Maddie Taylor       | Calabasas, CA       |
| Sarah Stryhanyn           | Emeryville, CA    | John Teevan         | Chula Vista, CA     |
| Debbie Sturt              | Marina, CA        | Ted Telemaque       | Riverside, CA       |
| Ryan Suleiman             | Sacramento, CA    | Tobi Telesco        | Santa Cruz, CA      |
| Teresa Sullivan           | LOS ANGELES, CA   | Susan Telese        | los angeles, CA     |
| Edward Sullivan           | San Francisco, CA | Alicia Telford      | Berkeley, CA        |
| Dianne Sullivan           | Modesto, CA       | Kimberlee Tellez    | Los Angeles, CA     |
| Lynn Sunday               | Half Moon Bay, CA | Susie Rose Tempesta | El Granada, CA      |
| Julie Svendsen            | Burbank, CA       | Sara Templeton      | San Francisco, CA   |
| Don Swall                 | Eureka, CA        | Debbie Tenenbaum    | Berkeley, CA        |
| Rebecca Swanson           | Mariposa, CA      | Joanne Tenney       | Escondido, CA       |
| Roberta Swanson           | Walnut, CA        | Michael Terry       | Santa Monica, CA    |
| Debra Swartz              | Los Angeles, CA   | Jeff Thayer         | San Diego, CA       |
| Pat Sweem                 | Santa Barbara, CA | Rita Thio           | Walnut, CA          |
| Roy Sweet                 | Aliso Viejo, CA   | Shakayla Thomas     | Compton, CA         |
| Chris Swenning            | Richmond, CA      | Eva Thomas          | Woodside, CA        |
| Richard Swift             | Camarillo, CA     | Pam Thomas-Hill     | San Bernardino, CA  |
| Ann Swink                 | Escondido, CA     | Pat Thompson        | Roseville, CA       |
| Geoffrey And Linda Symcox | Pasadena, CA      | Paula Thompson      | San Diego, CA       |
| Jim Szewczak              | Redwood City, CA  | Geraldine Thompson  | San Jose, CA        |
| Amber T                   | Richmond, CA      | Doug Thompson       | Morongo Valley, CA  |
| Sheila T.                 | moreno valley, CA | Ronald Thompson     | Crescent City, CA   |
| Karen Taatjes             | Lompoc, CA        | Brenda Thompson     | La Mesa, CA         |
| Barbara Tacker            | Camarillo, CA     | Linda Thompson      | Torrance, CA        |
| Theresa Tafoya            | Temecula, CA      | Nancy Thomsen       | Napa, CA            |
| Carol Taggart             | Menlo Park, CA    | Douglas Thorley     | Colfax, CA          |
| Patrick Taggart           | San Jose, CA      | Robert Thornhill    | Livermore, CA       |

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| Loretta Tiefen       | Malibu, CA          | Lucia Turner              | CaNew Yorkon Lake, CA |
| Kellyn Timmerman     | SAN DIEGO, CA       | Glen A Twombly            | Arcata, CA            |
| Lydia Tinder         | Stockton, CA        | Joe Tyburczy              | McKinleyville, CA     |
| Kalita Todd          | Grass Valley, CA    | Canan Tzelil              | Beverly Hills, CA     |
| Jennifer Tolentino   | Long Beach, CA      | Kaera U                   | Lawrence, CA          |
| April Toller         | Temescal Valley, CA | Janice Uehlein            | La Quinta, CA         |
| Margaret Tollner     | Lakewood, CA        | John Ulloth               | Van Nuys, CA          |
| Michael Tomczyszyn   | San Francisco, CA   | Linda Ulvaeus             | Santa Barbara, CA     |
| Andy Tomsy           | San Marcos, CA      | Robert Underwood          | Concord, CA           |
| Myra Toth            | Ojai, CA            | Jeff Urdank               | Sherman Oaks, CA      |
| John Totino          | NV City, CA         | Monique Ussini            | Sherman Oaks, CA      |
| Lana Touchstone      | Vallejo, CA         | Sylvia Vairo              | Santa Cruz, CA        |
| Theresa Tourigny     | San Diego, CA       | Kim Valentine             | Carson, CA            |
| Arlette Towner       | La Crescenta, CA    | Darlene Vales             | San Jose, CA          |
| Roberta Tozier       | Poway, CA           | Jay Van Arsdale           | Oakland, CA           |
| Lila Trachtenberg    | Santa Barbara, CA   | Annabelle Van Dyke        | El Dorado Hills, CA   |
| Judy Trahan          | Hayward, CA         | Chris Van Hook            | Pacific Palisades, CA |
| Karen Trainor        | Ventura, CA         | Danielle Van Kampen-Swick | San Jose, CA          |
| Quynh Tran           | San Diego, CA       | Kristopher Van Stralen    | Orinda, CA            |
| Ivy Tran             | Los Angeles, CA     | Michael Vance             | Highland, CA          |
| Kate Transchel       | Chico, CA           | Teresita Vanderdys        | Irvine, CA            |
| Beti Webb Trauth     | Eureka, CA          | Nagisa Vanvliet           | Livermore, CA         |
| Philip Traynor       | Fresno, CA          | John Varga                | Rancho Mirage, CA     |
| Carol Treacy         | Petaluma, CA        | Silvia Vasquez            | Sacramento, CA        |
| Tami Trearse         | Sacramento, CA      | Iris Vaughan              | San Francisco, CA     |
| D.D. Trent           | San Luis Obispo, CA | Rosewind Veilove          | San Diego, CA         |
| Terry Trevathan      | Simi Valley, CA     | Monica Ventrice           | Loma Mar, CA          |
| Martin Tripp         | Santa Clarita, CA   | Lori Vest                 | Potter Valley, CA     |
| Christine Troche     | Fremont, CA         | Renee Vida                | Redondo abeach, CA    |
| Josephine Trott      | Davis, CA           | Dorothy Vieira            | San Diego, CA         |
| Carl Trumello        | Palo Alto, CA       | Timothy Vila              | Burbank, CA           |
| Justin Truong        | San Francisco, CA   | Carlene Visperas          | Concord, CA           |
| Karma Lekshe Tsomo   | San Diego, CA       | Pablo Voitzuk             | Oakland, CA           |
| Marlene Tucay        | Anaheim, CA         | Nina Von Drachenfels      | Marina, CA            |
| Anne Tuddenham       | El Cerrito, CA      | Va Von Hasseln            | Carmel, CA            |
| Jerold Tuller        | Auburn, CA          | Susan Von Schmacht        | Watsonville, CA       |
| Richard Tully        | Redlands, CA        | Carol Vonsederholm        | Chula Vista, CA       |
| Rg Tuomi             | Thousand Oaks, CA   | Roger Vortman             | Santa Cruz, CA        |
| Anthony Tupasi       | San Francisco, CA   | Tamara Voyles             | Sebastopol, CA        |
| Richard Turegano     | Hayward, CA         | Annie W                   | San Diego, CA         |
| Neva Turer           | Santa Rosa, CA      | Mary Wade                 | La Mesa, CA           |
| Jean Turley-Sinclair | Grass Valley, CA    | Jennifer Wagner           | Fullerton, CA         |
| Va Turne             | Woodland Hills, CA  | James Walker              | Mckinleyville, CA     |

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|-------------------|----------------------------|--------------------|---------------------|
| Johanna Wallace   | Santa Rosa, CA             | Stephen Weitz      | Oakland, CA         |
| Nisa C Wallace    | Redlands, CA               | Rebecca Welch      | Oakland, CA         |
| Patrice Wallace   | Santa Cruz, CA             | Paul Wellin        | San Diego, CA       |
| Paul Waller       | Woodland Hills, CA         | David Wendt        | Walnut Creek, CA    |
| Nina Waloewandja  | Pinole, CA                 | April West         | Santa Rosa, CA      |
| Nancy Walter      | San Luis Obispo, CA        | Juanita Westberg   | Hesperia, CA        |
| Ernie Walters     | Union City, CA             | Yvonne Westbrook   | Hollywood, CA       |
| Ernie Walters     | Union City, CA             | Ansel Wettersten   | San Francisco, CA   |
| Abby Wanamaker    | Pasadena, CA               | Janet Wheeler      | Murrieta, CA        |
| Elaine Wander     | Rodeo, CA                  | Brandon Wheelock   | Vista, CA           |
| Judy Wang         | Santa Clara, CA            | Howard Whitaker    | Gold River, CA      |
| Maria Wanless     | Herlong, CA                | Edwina White       | Sacramento, CA      |
| Christopher Ware  | Fremont, CA                | Mary White         | SunNew Yorkvale, CA |
| Emily Warne       | Half moon bay, CA          | David White        | Beverly Hills, CA   |
| Ronald Warren     | Glendale, CA               | Frances Whiteside  | Montclair, CA       |
| Karen Warren      | SunNew Yorkvale, CA        | Ursula Whittaker   | Studio City, CA     |
| Martin Washington | Berkeley, CA               | Charles Wieland    | San Ramon, CA       |
| Debbie Watanabe   | San Luis Obispo, CA        | Richard Wightman   | Arcadia, CA         |
| Melissa Waters    | Laguna Niguel, CA          | Stewart Wilber     | San Francisco, CA   |
| Kim Waterson      | Orange, CA                 | Katie Wilcox       | Menlo Park, CA      |
| Richard Watson    | Long Beach, CA             | Kathryn Wild       | San Diego, CA       |
| Mimi Watson       | San Anselmo, CA            | Stephanie Wilder   | Mount Shasta, CA    |
| Susan Watts       | Riverside, CA              | Carol Wiley        | Victorville, CA     |
| Leonard Way       | Rowland Heights, CA        | Ramona Wilkerson   | Oakland, CA         |
| Max Weasner       | Livermore, CA              | Judy Wilkinson     | La Jolla, CA        |
| Sally Webb        | Santa Barbara, CA          | Dorothy Wilkinson  | Los Angeles, CA     |
| Trish Webb        | Palm Springs, CA           | Sandy Williams     | Covina, CA          |
| Deborah Webb      | Fair Oaks, CA              | Judy Williams      | Caliente, CA        |
| John Webb         | Trinidad, CA               | Gina Williams      | Sebastopol, CA      |
| Linda Webb        | Rancho Palos Verdes,<br>CA | Melissa Williams   | Sacramento, CA      |
| Stephanie Weber   | Grand Terrace, CA          | Kitty Williams     | Santa Barbara, CA   |
| Charles Weber     | Oceanside, CA              | Charlotte Williams | Inglewood, CA       |
| Sharon Webster    | Huntington Beach, CA       | Deborah Williams   | Goleta, CA          |
| Dave Webster      | Petaluma, CA               | Joanne Williams    | Mill Valley, CA     |
| Ellen Webster     | Claremont, CA              | Daniel Williams    | Wawona, CA          |
| Gwen Weil         | Oakland, CA                | Michael Williams   | Nicasio, CA         |
| Linda Weiner      | San Francisco, CA          | Debbie Williamson  | Marysville, CA      |
| Linda Weiner      | San Francisco, CA          | Barbara Williamson | Albany, CA          |
| Joe Weis          | Reedley, CA                | Jean Williamson    | Studio City, CA     |
| Lenette Weishaar  | Vallejo, CA                | Debra Wills        | Piedmont, CA        |
| Lynne Weiske      | Los Angeles, CA            | Clyde Willson      | Oakland, CA         |
| Russell Weisz     | Santa Cruz, CA             | Norm Wilmes        | Yuba City, CA       |
|                   |                            | Merlin Wilson      | Salinas, CA         |

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|------------------------|---------------------|--------------------------------|---------------------|
| Richard Wilson         | San Francisco, CA   | Carolyn Yee                    | Sacramento, CA      |
| Ken Wilson             | Santa Rosa, CA      | Stefanie Yellis                | Oakland, CA         |
| Linda Wilson           | San Diego, CA       | Kathy Yeomans                  | Ventura, CA         |
| Bruce Wimberley        | El Segundo, CA      | Jimmie Yonemoto                | San Jose, CA        |
| Maggie Wineburgh-Freed | Los Angeles, CA     | Amanda Young                   | Lake Forest, CA     |
| Carin Wineman          | Mountain View, CA   | Ladeana Young                  | Newport Beach, CA   |
| Betty Winholtz         | Morro Bay, CA       | Allan Young                    | Novato, CA          |
| Lisa Winningham        | Los Gatos, CA       | Noah Youngelson                | Los Angeles, CA     |
| Heidi Winslow          | Santa Barbara, CA   | Christopher Yrarrazaval-Correa | Santa Ana, CA       |
| Greg Winton            | Moreno Valley, CA   | Brian Yu                       | Santa Monica, CA    |
| M Wire                 | Boulder Creek, CA   | J Yudell                       | Santa Monica, CA    |
| Anita Wisch            | Santa Clarita, CA   | Guy Zahller                    | Aptos, CA           |
| Anita Wisch            | Valencia, CA        | Barry Zakar                    | Vallejo, CA         |
| Rachel Wolf            | Santa Cruz, CA      | Rena Zamanzade                 | Escondido, CA       |
| Kristina Wolf          | Walnut Creek, CA    | Aslan Zamazal                  | Winchester, CA      |
| Brian Wolf             | San Diego, CA       | Jossy Zamora                   | Rialto, CA          |
| Wally Wolfe            | Valley Center, CA   | Charlene Zanella               | Redwood Valley, CA  |
| Charles Wolfe          | Sylmar, CA          | Mari Zatman                    | San Francisco, CA   |
| Roger Womack           | Hayward, CA         | Sandy Zelasko                  | Valley Cetner, CA   |
| Rev. Jeffrey Womble    | Lodi, CA            | Mark Zeljak                    | San Jose, CA        |
| Lily Wong              | San Jose, CA        | Rudy Zeller                    | Benicia, CA         |
| Samuel Wong            | WEST COVINA, CA     | Jess Zelniker                  | North Hollywood, CA |
| Suzanne Wood           | Auburn, CA          | R Zierikzee                    | San Francisco, CA   |
| Debbi Wood             | Port Hueneme, CA    | Carol Zimmerman                | Palo Alto, CA       |
| Catherine Wood         | San Diego, CA       | Amy Zink                       | Oakland, CA         |
| Patricia Wood          | Fair Oaks, CA       | Teresa Zollars                 | Fresno, CA          |
| Joseph Woodard         | Alameda, CA         | Ronnie Zuckerberg              | San Francisco, CA   |
| Bill Woodbridge        | Goleta, CA          | Arleen Zuniga                  | Guerneville, CA     |
| Peg Woodin             | Oroville, CA        | Kristina Zweig                 | Pacheco, CA         |
| Sandra Woodmansee      | Morro Bay, CA       | Maxine Zylberberg              | San Francisco, CA   |
| Tansy Woods            | San Diego, CA       | James True                     | Oakland, CA         |
| Linda Woodward         | Pleasant Hill, CA   | Robert Abbott                  | Evergreen, CO       |
| Ronald Woolford        | Placerville, CA     | Ronald Abbott                  | Greeley, CO         |
| Claudia Wornum         | Oakland, CA         | Greg Abernathy                 | Fairplay, CO        |
| Kenneth Wright         | Santa Rosa, CA      | Ericka Abrams                  | Aurora, CO          |
| Kerry Wright           | Sacramento, CA      | Glenn Ackerson                 | Boulder, CO         |
| Keith Wright           | Glendale, CA        | Penelope Adams                 | Broomfield, CO      |
| Blake Wu               | Lafayette, CA       | Stanley Adamson                | Broomfield, CO      |
| Marjorie Xavier        | Hayward, CA         | Fran Aguirre                   | Denver, CO          |
| Finale Xiong           | Stockton, CA        | Ron Alberty                    | Longmont, CO        |
| Jennifer Yamamoto      | Manhattan Beach, CA | Shai Albright                  | Lakewood, CO        |
| Allen Yarowsky         | San Diego, CA       | Charlotte Alexandre            | Thornton, CO        |
| Thomas Yaussy          | San Francisco, CA   | Isabella Allen                 | Boulder, CO         |

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|-------------------------|----------------------|------------------------------|----------------------|
| Catherine Alsafi        | Englewood, CO        | Olin Bray                    | Lakewood, CO         |
| Doni Angell             | Canon City, CO       | Pj Breslin                   | Rifle, CO            |
| Mel Apodaca             | Denver, CO           | James Bright                 | Grand Junction, CO   |
| Lorraine Aslakson       | Silverthorne, CO     | Jonette Bronson              | Telluride, CO        |
| Sam Asseff              | Colorado Springs, CO | Susan Brown                  | Evergreen, CO        |
| Paula Atkinson          | Denver, CO           | Ronald And Deidre Brown      | Longmont, CO         |
| Diana Avery             | Colorado springs, CO | Janice Brown                 | Englewood, CO        |
| Kathleen Ayres          | Longmont, CO         | Laura Bruess                 | Boulder, CO          |
| Michele Baca            | Lakewood, CO         | Roslynn Budoff               | Arvada, CO           |
| Joe Baggett             | Denver, CO           | Melissa Burger               | Manitou Springs, CO  |
| Patricia Baker          | Denver, CO           | Robert Burnett               | Crested Butte, CO    |
| Megan Baker             | Thornton, CO         | Martha W D Bushnell          | Louisville, CO       |
| John Baker              | Fort Collins, CO     | Bill Butler                  | Evergreen, CO        |
| David Balan             | Colorado Springs, CO | Betty Butler                 | Niwot, CO            |
| Kelsy Ballesteros       | Colorado Springs, CO | Terry C.                     | Aurora, CO           |
| Dana Barela             | Golden, CO           | Sheri Calfee                 | Denver, CO           |
| William Barrett         | Boulder, CO          | Alexander Cameron            | Vail, CO             |
| Currie Barron           | Boulder, CO          | James Campbell               | Grand Junction, CO   |
| Vernon Batty            | Pagosa Springs, CO   | Charles Canby                | Berthoud, CO         |
| Heather Becker          | Denver, CO           | Carol Cantrell               | Fort Collins, CO     |
| Carla Behrens           | Longmont, CO         | Kelly Carlson                | Lakewood, CO         |
| Gail Bell               | Denver, CO           | Amy Cervene                  | Arvada, CO           |
| Sonia Benglen           | Parker, CO           | Sbs Challinor                | Denver, CO           |
| Elaine Berg             | Evergreen, CO        | Dorothy & Richard Chamberlin | Colorado Springs, CO |
| Kaycee Bernardo         | Colorado Springs, CO | Linda Chase                  | Denver, CO           |
| Craig Bert              | Castle Rock, CO      | Debi Chernak                 | Evergreen, CO        |
| Susan Berzac            | Castle Rock, CO      | Rob Clancy                   | Arvada, CO           |
| Jean Bevsek             | Colorado Springs, CO | Susan Clark                  | CASTLE ROCK, CO      |
| Helen Beyer             | Littleton, CO        | Pamela Coker                 | Pueblo, CO           |
| Chris Beyer             | Littleton, CO        | Lillian Connelly             | Longmont, CO         |
| Kandice Bilisoly        | Colorado Springs, CO | Faline Connelly              | Aurora, CO           |
| Roberta Bishop          | Aurora, CO           | Martha Cooksey               | Colorado Springs, CO |
| Christie Bishop         | Thornton, CO         | Matt Cornell                 | Durango, CO          |
| Brad Bittan             | Parker, CO           | John Cornely                 | LARpur, CO           |
| Pam Bixter              | Evergreen, CO        | Norvelle Couch               | Parker, CO           |
| Donna Bonetti           | Boulder, CO          | Richard Creswell             | Lakewood, CO         |
| Robert Booth            | Aurora, CO           | Sue Crouse                   | Boulder, CO          |
| Kent Borges             | Colorado Springs, CO | Nichole Crowl                | Manitou Springs, CO  |
| Michael Borghi          | Fountain, CO         | Peggy Cruder                 | AURORA, CO           |
| Silvana Borrelli        | Englewood, CO        | Sally Cumine                 | Aurora, CO           |
| Patricia Borri          | Wheat Ridge, CO      | Annette Cusick               | Basalt, CO           |
| Claudia Bourks          | Morrison, CO         | Bruce Cutts                  | Greeley, CO          |
| Karen Brackstonne-Fryer | Estes Park, CO       | Dustin Dalman                | Cortez, CO           |

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| Mary Beth Davenport   | Aurora, CO           | Amy Ff              | Aurora, CO           |
| Kathy Dawson          | Broomfield, CO       | Brian Field         | Thornton, CO         |
| Sue Dean              | Longmont, CO         | Kelli Fielden       | Littleton, CO        |
| Joanne Dehart         | Westminster, CO      | Dave Fischer        | Denver, CO           |
| Stephen Delgrosso     | Fort Collins, CO     | Jennifer Fleming    | Lafayette, CO        |
| Paula Denissen        | Vail, CO             | Janice Flood        | Longmont, CO         |
| Jeanne Dennison       | Longmont, CO         | Heidi Font          | Colorado Springs, CO |
| Carol Deroche         | Broomfield, CO       | Steve Ford          | Boulder, CO          |
| Therese Devigil       | Denver, CO           | Cynthia Fravel      | Fort Collins, CO     |
| Britta Dimaggio       | Louisville, CO       | Lance French        | Broomfield, CO       |
| Ga Do                 | Denver, CO           | Susan Friar         | Paonia, CO           |
| Patricia Dobson       | Woodland Park, CO    | Stacey Fujiwara     | Denver, CO           |
| Brendan Dodd          | Colorado Springs, CO | Elizabeth Fulton    | Glenwood Springs, CO |
| Bonnie Domer          | Aurora, CO           | Juli Gage-Macdonald | Centennial, CO       |
| Kathleen Doyle        | Golden, CO           | Elaine Gates        | Littleton, CO        |
| Ann Drucker           | Boulder, CO          | Janelle George      | Parker, CO           |
| Ruth Duerr            | Westminster, CO      | Amber Gilchrist     | Elbert, CO           |
| Pat Duffus            | Thornton, CO         | Sheryl Gillespie    | denver, CO           |
| Moneca Dunham         | Evergreen, CO        | J Gillette          | Bayfield, CO         |
| Naomi Dunlap          | Commerce City, CO    | Nancy Gillis        | Boulder, CO          |
| Chris Duran           | Lakewood, CO         | Lynne Glaeske       | Denver, CO           |
| Kathy Durrum          | Aurora, CO           | Neil Glaser         | Basalt, CO           |
| Mario Echevarria      | Longmont, CO         | Joan Glasser        | Boulder, CO          |
| Mike Eckels           | Fort Collins, CO     | Carrie Gleason      | Sedalia, CO          |
| John Eckler           | Lakewood, CO         | Carrie Gleason      | Sedalia, CO          |
| Mary Ehm              | Denver, CO           | Shannon Glenn       | Colorado Springs, CO |
| Susan Eikenbary       | Fort Collins, CO     | Paula Glinkman      | Boulder, CO          |
| Jacqueline Eliopoulos | Boulder, CO          | Kay Glinsman        | Loveland, CO         |
| Shawn Elliott         | Aurora, CO           | Kip Golden          | Boulder, CO          |
| Debbie Ellis          | Cotopaxi, CO         | Michael Golembeski  | LARpur, CO           |
| Susan Enzinna         | Broomfield, CO       | Dale Goodin         | Lakewood, CO         |
| William Erven         | Clifton, CO          | Linda Graae         | Fort Collins, CO     |
| Bernadette Espinoza   | Cortez, CO           | William Grannell    | Denver, CO           |
| Donald Evans          | Broomfield, CO       | Jennifer Gray       | Denver, CO           |
| Julie Falkenberg      | Littleton, CO        | Melody Gray         | Fort Lupton, CO      |
| Rita Falsetto         | Aguilar, CO          | Nancy Gregory       | Littleton, CO        |
| Rita Falsetto         | Aguilar, CO          | Jean Grieve         | Denver, CO           |
| Sandra Farkas         | Boulder, CO          | Jackie Griffeth     | Colorado Springs, CO |
| Linda Farley          | Fort Collins, CO     | Connie Grogan       | Deer Trail, CO       |
| John Farmer           | Boulder, CO          | Kate Guilford       | Boulder, CO          |
| Geralyn Farwell       | Colorado Spgs, CO    | Gwendy Haas         | Boulder, CO          |
| Tracy Faunce          | Penrose, CO          | Gloria Haley        | Federal Heights, CO  |
| Sam Fernandez         | Greeley, CO          | Kent Hallam         | Colorado Springs, CO |

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| Justice Hardman     | Loveland, CO         | Kelly Kerns        | San Acacio, CO       |
| Jenna Harris        | Evergreen, CO        | Cindi Kestrel      | Loveland, CO         |
| Janee Harris        | Boulder, CO          | Shelley Kilbon     | Loveland, CO         |
| Michael Harrison    | Eckert, CO           | Wilma Kilpatrick   | Wheat Ridge, CO      |
| Nancy Hartman       | Louisville, CO       | Larry Kimball      | COTOPAXI, CO         |
| George Hartman      | Louisville, CO       | Allison Kinsey     | Telluride, CO        |
| Brendan Havner      | Highlands Ranch, CO  | Vicki Kirchner     | Fort Collins, CO     |
| Deborah Hawley      | Fort Collins, CO     | David Klingensmith | Boulder, CO          |
| Edele Heath         | Englewood, CO        | James Klug         | Littleton, CO        |
| Michael Heckwolf    | Highlands Ranch, CO  | Bobbie Knight      | Denver, CO           |
| Mark Heisler        | Florissant, CO       | Tricia Kob         | Fort Collins, CO     |
| Kristen Henry       | Aspen, CO            | Janine Kondreck    | Denver, CO           |
| Ruth Henson         | Denver, CO           | Robin Kory         | Colorado Springs, CO |
| Patti Herring       | Evergreen, CO        | Rita Kovshun       | Aurora, CO           |
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| Jason Hoff          | Vail, CO             | Susan Krause       | Conifer, CO          |
| Robert Honish       | Denver, CO           | Maya Kurtz         | Glenwood Springs, CO |
| Brandy Horne        | Colorado Springs, CO | Kayle Lamar        | Denver, CO           |
| Diana Hornick       | Littleton, CO        | Tania Landauer     | Edwards, CO          |
| Mark Houdashelt     | Fort Collins, CO     | Sandra Lane        | Boulder, CO          |
| Diane Huber         | Centennial, CO       | Chris Lange        | Lakewood, CO         |
| Keith Hudiburgh     | Pueblo, CO           | William Laplante   | Austin, CO           |
| Carey Hume          | Boulder, CO          | Julia Lawrence     | Colorado Springs, CO |
| Christine Humphreys | Louisville, CO       | David Lax          | Fort Collins, CO     |
| Paige Humpston      | Lake George, CO      | Clifford Lee       | Colorado Springs, CO |
| Erik Hvoslef        | Salida, CO           | Ka Lemon           | Denver, CO           |
| Jorge Ibarra        | Fort Collins, CO     | Jody Lewis         | Fruita, CO           |
| Stephen Ipsen       | Littleton, CO        | Babette Lewis      | Montrose,, CO        |
| Deborah Irwin       | Westminster, CO      | Eric Lezotte       | Denver, CO           |
| James Jackson       | Bailey, CO           | Robert Liedike     | Arvada, CO           |
| Beverly Jahn        | Denver, CO           | Karen Littlefield  | Centennial, CO       |
| Lorren James        | Aurora, CO           | Ga Locker          | Fort Collins, CO     |
| Jolynn Jarboe       | Denver, CO           | Ron Lopez          | Pueblo West, CO      |
| Brett Jepson        | Colorado Springs, CO | Barbara Maat       | Crestone, CO         |
| Michael Johan       | Boulder, CO          | Kristyn Macphail   | Littleton, CO        |
| Katherine Johnson   | Denver, CO           | Jill Madsen        | Colorado Springs, CO |
| Betti Jones         | Longmont, CO         | Kathryn Mann       | Boulder, CO          |
| Nancy Jones         | Thornton, CO         | Amanda Mansfield   | Fort Collins, CO     |
| Gina Jones          | Lakewood, CO         | Carmella Marchitti | Commerce City, CO    |
| Kathleen Juracka    | Bayfield, CO         | Pat Markley        | FORT COLLINS, CO     |
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| David Katz          | Arvada, CO           | Lisa Masslich      | Golden, CO           |



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| Lynn Mattson              | Fort Collins, CO      | Carolyn O'Shea      | Denver, CO           |
| Jane Maximov              | Colorado Springs, CO  | Brett O'Sullivan    | Lafayette, CO        |
| Margaret Mayer            | Durango, CO           | Timothy Ott         | Longmont, CO         |
| Carol Mcardell            | Carbondale, CO        | Timothy Ott         | Longmont, CO         |
| Mary Kay Mccabe           | Arvada, CO            | Sally Packard       | Colorado Springs, CO |
| Jim Mccallum              | Fort Collins, CO      | Miriam Paisnier     | Boulder, CO          |
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| Judy Mcdonald             | Victor, CO            | Tom Peace           | Denver, CO           |
| Jacci Mckenna             | Eagle, CO             | Sven Pedersen       | Alamosa, CO          |
| Sandra Mcluckie           | Fort Collins, CO      | Fred Peirce         | Aspen, CO            |
| Tina Mcnew                | Montrose, CO          | Drew Pelton         | Boulder, CO          |
| Jessie Medina             | Colorado Springs, CO  | Holly Petitt        | Loveland, CO         |
| F Meek                    | Steamboat Springs, CO | Teresa Phillips     | Fort Collins, CO     |
| Mark Meeks                | Bailey, CO            | John Phillips       | Aspen, CO            |
| Catherine Mendoza         | Aurora, CO            | Jennifer Piche      | Centennial, CO       |
| Traci Metzner             | Broomfield, CO        | Tanya Piker         | La Junta, CO         |
| Tonya Michel              | Silverthorne, CO      | James Plagmann      | Boulder, CO          |
| Shannon Milhaupt          | Golden, CO            | Donna Plutschuck    | Dillon, CO           |
| Lyn Mill                  | Lakewood, CO          | Eric Polczynski     | Pagosa Springs, CO   |
| Aimee Millensifer         | Denver, CO            | Janeene Porcher     | Golden, CO           |
| Susan Milligan            | Westminster, CO       | Audrey Porreca      | Denver, CO           |
| Laurel Mills              | Denver, CO            | Barbara Porter      | Salida, CO           |
| Linda Mitchell            | Loveland, CO          | Karen Prescott      | Lakewood, CO         |
| Leila Mohseni             | Boulder, CO           | Susanne Press       | Vail, CO             |
| Mark Moll                 | Nederland, CO         | Jeanne Puerta       | Denver, CO           |
| Mrs. J. Moore             | Glenwood Springs, CO  | Theresa Putnam      | Colorado Springs, CO |
| Marisa Morales            | Denver, CO            | Diane Quinlivan     | Thornton, CO         |
| Penny Morrow              | Arvada, CO            | Sherry Quinn        | Colorado Springs, CO |
| Mary Morse                | Broomfield, CO        | Paul R              | Colorado Springs, CO |
| Kari Mueller              | Colorado Springs, CO  | Peter Raich         | Dillon - CO, CO      |
| Danielle Murphy           | Longmont, CO          | Tiffany Rapplean    | Westminster, CO      |
| Kim Musselman             | Monument, CO          | Dale Ray            | Highlands Ranch, CO  |
| Jill Nealy                | Highlands Ranch, CO   | Victoria Regina     | Lakewood, CO         |
| Edmund And Judith Nespoli | Longmont, CO          | Karen Reid          | Santa Rosa, CO       |
| Margi Ness                | Boulder, CO           | Marilyn Reis        | Lafayette, CO        |
| Mike Newell               | Buena Vista, CO       | Robert Renfro       | Denver, CO           |
| Teri Nolin                | Denver, CO            | Jonathan Resnick    | Avon, CO             |
| Neal Obrien               | Denver, CO            | Adena Rice          | Westminster, CO      |
| Lee O'Brien               | Fort Collins, CO      | Catherine Rich      | Woodland Park, CO    |
| R Odom                    | Fort Collins, CO      | Caroline Richardson | Placerville, CO      |
| Karen Ogle                | Centennial, CO        | Adele Riffe         | Hesperus, CO         |

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| Katherine Robertson | Fort Collins, CO     | Donna Slack          | Loveland, CO          |
| Laurie Rochardt     | Lyons, CO            | Todd Smarr           | Denver, CO            |
| Ingrid Rochester    | Elbert, CO           | Deidra Smith         | Loveland, CO          |
| Melinda Roddick     | Telluride, CO        | Michael Smith        | Pagosa springs, CO    |
| Rick Rodriguez      | Boulder, CO          | Hayley Somers        | Lakewood, CO          |
| Deborah Rollings    | Colorado Springs, CO | Vilma Southwick      | Loveland, CO          |
| Tom Rolofson        | Colorado Springs, CO | Greg Speer           | Fort Collins, CO      |
| Aro Roseman         | Westminster, CO      | Melissa Spengler     | Pueblo, CO            |
| John Rosen          | Grand Junction, CO   | Charlie Speno        | Durango, CO           |
| Lynne Rosenfield    | Aspen, CO            | Scott Sperico        | Almont, CO            |
| Shari Ross          | Littleton, CO        | Tara Spires          | Broomfield, CO        |
| Robert Rothman      | Denver, CO           | Patricia Spurvey     | Lakewood, CO          |
| Ashley Rowley       | Grand Junction, CO   | Divya Sridharakannan | Centennial, CO        |
| Luana Rubin         | Boulder, CO          | Va Stainton          | Boulder, CO           |
| Jerily Rushworth    | Colorado Springs, CO | La Vaughn Standridge | Aurora, CO            |
| Trise Ruskay        | Nederland, CO        | Kellie Starr         | Castle Rock, CO       |
| Mike Rustad         | Durango, CO          | Laurel Starr         | Golden, CO            |
| Lilla Ryan          | Colorado Springs, CO | Chuck Steele         | Colorado Springs, CO  |
| Lynette Rynders     | Strasburg, CO        | Marc Stein           | Monument, CO          |
| Jen S               | Aspen, CO            | Tracy Stelten        | Longmont, CO          |
| Bonnie Salatti      | Denver, CO           | Tatyana Stevens      | Basalt, CO            |
| Virgil Salzman      | Denver, CO           | Jessica Stewart      | Bellvue, CO           |
| Dana Sanchez        | Pine, CO             | Vickie Stimac        | Windsor, CO           |
| Pam Sargent         | Durango, CO          | Sarah Stimely        | Fort Collins, CO      |
| Gary Schneider      | Fort Collins, CO     | Sherry Stockert      | Englewood, CO         |
| Lynette Schneller   | Broomfield, CO       | Austen Stone         | Fort Collins, CO      |
| Margaret Schnipper  | Frisco, CO           | Jaimee Stransky      | Wheat Ridge, CO       |
| Catherine Schramm   | Lakewood, CO         | Mary Strauch         | Thornton, CO          |
| Lori Schreiber      | Thornton, CO         | Susan Strauss        | Greenwood Village, CO |
| Ralf Schuetz        | Longmont, CO         | Tracy Strickland     | Littleton, CO         |
| Mark Seis           | Bayfield, CO         | Becky Sullivan       | Colorado Springs, CO  |
| Angela Sell         | Durango, CO          | Anne Sutherland      | Ft Collins, CO        |
| Ragen Serra         | Denver, CO           | Diane Swanson        | Aurora, CO            |
| Michelle Sewald     | Denver, CO           | Sandra Sweetwood     | Colorado Springs, CO  |
| Pam Sheeler         | Loveland, CO         | Chris Talbot-Heindl  | Denver, CO            |
| Kayan Sherrer       | Denver, CO           | Melinda Tallent      | Lyons, CO             |
| Amy Sherwood        | Centennial, CO       | Brigitte Tawa        | Boulder, CO           |
| Andi Shotwell       | Wheat Ridge, CO      | Krista Taylor        | Aurora, CO            |
| Richard Siegel      | Highlands Ranch, CO  | Jane Taylor          | Denver, CO            |
| Sonnta Simon        | Littleton, CO        | Cannon Taylor        | Colorado Springs, CO  |
| Margaret Singh      | Broomfield, CO       | Bonnie Templeton     | Loveland, CO          |
| Mary Sison          | Durango, CO          | Shanin Terrell       | Denver, CO            |

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 Henry Towne Aurora, CO  
 Elisa Townshend Denver, CO  
 Lisa Travis Highlands Ranch, CO  
 Tom Tripp Fort Collins, CO  
 Glen Uchida Littleton, CO  
 Autumn Ungar Arvada, CO  
 Arthur Van Der Harten Mancos, CO  
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 Heather Vasquez Denver, CO  
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 Sue Visocchi Parker, CO  
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 Va Waldron Pueblo, CO  
 Ben Waller Broomfield, CO  
 Rhetta Walter Monument, CO  
 Aimee Ward Fort Collins, CO  
 Laura Waterworth Aurora, CO  
 Ashley Watkins-Maagad Denver, CO  
 Andrea Watson Lakewood, CO  
 Charme Webb Denver, CO  
 Evan Weger Glenwood Springs, CO  
 Jennifer Weitenberner Timnath, CO  
 Sheryl Welborn Denver, CO  
 Paul West Fort Collins, CO  
 Nile Whitaker lakewood, CO  
 Marta Wilcox Colorado Springs, CO  
 Bridget Williamson Aurora, CO  
 Carol Williamson Aurora, CO  
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 Lee Wilson Basalt, CO  
 Jean Wilson Denver, CO  
 Michelle Wilson Longmont, CO  
 Cynthia Wizeman Vail, CO  
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Craig Wright Lakewood, CO  
 Gina Writz Littleton, CO  
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 Shannon Yaconiello Yampa, CO  
 Lo Yeoman Broomfield, CO  
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| Elizabeth Polgase      | Manchester, CT       | Jeanne Tennis     | Windsor, CT          |
| Christine Porrello     | Southbury, CT        | Laura Tibbo       | Vernon, CT           |
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| Christie Sanders       | Manchester, CT       | Manucher Baybordi | Washington, DC       |
| Randy Savicky          | Stamford, CT         | D Bello           | Washington, DC       |
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| Sarah Dean          | Washington, DC | Jennifer Emerle-Sifuentes | Newark, DE            |
| Melissa Dimondstein | Washington, DC | Diane Faircloth           | Hartly, DE            |
| Melissa Dimondstein | Washington, DC | Lisabeth Faller           | Wilmington, DE        |
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| Lynne Greenwald     | Washington, DC | Joan Goodfellow           | Wilmington, DE        |
| Eva Havas           | Washington, DC | James Green               | Newark, DE            |
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| G. G. Johnson       | Washington, DC | Dylan Kennedy             | Wilmington, DE        |
| Elizabeth Layfield  | Washington, DC | Ramsay Kieffer            | Harrington, DE        |
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| Jeremy Rubin        | Washington, DC | Pamela Perkins            | Newark, DE            |
| Conall Rubin-Thomas | Washington, DC | Anna Quisel               | Wilmington, DE        |
| Emily Rugel         | Washington, DC | Jack Ray                  | Newark, DE            |
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| Anne Seidlitz       | Washington, DC | Isaac Rutter              | Wilmington, DE        |
| Louise Simone       | Washington, DC | Gene Rutter               | Wilmington, DE        |
| Lida Skrzypczak     | Washington, DC | Michael Short             | Lewes, DE             |
| Julia Stevenson     | Washington, DC | Roger Stanley             | Newark, DE            |
| Isabel Taylor       | Washington, DC | Jean Sweetman             | Townsend, DE          |
| Elizabeth Wadsworth | Washington, DC | Carolyn Thomas            | New Castle, DE        |
| Julie Walker        | Washington, DC | Liz Tymkiw                | Newark, DE            |
| Marion Weston       | Leuchars, DC   | Sue Weissinger            | Wilmington, DE        |
| Caroline Wood       | Washington, DC | Lorna Wenski              | Newark, DE            |
| Cindy Bernard       | Wilmington, DE | Iris Patty Yermak         | Wilmington, DE        |
| Jim Black           | Wilmington, DE | Melissa Abreu             | Palmetto Bay, FL      |
| Elizabeth Cherubin  | Camden, DE     | Blaise Adams              | Fort Myers, FL        |
| Jared Cornelia      | Wilmington, DE | Nancy Adams               | The Villages, FL      |
| Deborah Costas      | Wilmington, DE | Brian Ainsley             | Altamonte Springs, FL |
| Abigail Dean        | Wilmington, DE | Richard Alderman          | Panama City Beach, FL |
| Kerry Dietz         | Claymont, DE   | Jim Aldrich               | Tallahassee, FL       |

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|----------------------|-------------------------|-------------------------|-----------------------|
| Saadia Ali           | Doral, FL               | Gregory Barton          | Jacksonville, FL      |
| Debra Alleman        | Belleville, FL          | Oron Bass               | High Springs, FL      |
| Lynn Allen           | Jacksonville, FL        | Constance Baughan       | Jacksonville, FL      |
| Roger Allen          | Jacksonville, FL        | Judd Bean               | Riverview, FL         |
| Doris Alpern         | Sarasota, FL            | Gregory Beauvoir        | Avon Park, FL         |
| Albert Alvarez       | Miami Gardens, FL       | Martin Becker           | Marco Island, FL      |
| Gaetano Amato        | Saint James City, FL    | Lauren Becker           | Naples, FL            |
| Mary Andal           | Jacksonville, FL        | Jeff Becker             | Cape Coral, FL        |
| Kathy Andersen-Smith | Cape Canaveral, FL      | Edward Bell             | Miramar, FL           |
| Linda Anderson       | Punta Gorda, FL         | Ramon Bello             | Hialeah, FL           |
| Amy Anderson         | Spring Hill, FL         | Roseanne Belsito        | Fort Lauderdale, FL   |
| Amy Anderson         | Gainesville, FL         | Christopher Benjamin    | Saint Petersburg, FL  |
| Leda Andrews         | Key West, FL            | Nigel Bennie            | Atlantic Beach, FL    |
| Peg Andrews          | St Petersburg, FL       | Paula Benschhoff        | Sarasota, FL          |
| Marjorie Angelo      | Bunnell, FL             | Larry Benvenuti         | Marathon, FL          |
| Lisa Annecone        | Englewood, FL           | Jill Beran              | Coconut Creek, FL     |
| Beth Anz             | Palm Bay, FL            | Jody Berman             | Deerfield Beach, FL   |
| Judith April         | Indian Lake Estates, FL | Brigitte Bernhardt      | Palm Harbor, FL       |
| Va Aradio            | Wellington, FL          | Katherine Berryman      | Jacksonville, FL      |
| Galo Arguello        | Miami, FL               | Wendy Beyda             | Saint Augustine, FL   |
| Sylvana Arguello     | Miami, FL               | Noreen Beyer            | Nokomis, FL           |
| Laura Arias          | Miami, FL               | Kevin Bickers           | Atlantic Beach, FL    |
| Sissi Asperti        | Miami Beach, FL         | Richard Birdou          | Daytona Beach, FL     |
| G Athanason          | Clearwater, FL          | Bruce Blackwell         | Gainesville, FL       |
| Quinn Attika         | West Palm Beach, FL     | Debbie Blair            | Boca Raton, FL        |
| Mark Aziz            | Sarasota, FL            | Carmen Blakely          | Lutz, FL              |
| Tracy B              | Wellington, FL          | Rick Blanchett          | Fort Myers, FL        |
| Thomas B             | Boca Raton, FL          | Nancy Blanchett         | Fort Myers, FL        |
| Julie Bach           | Sarasota, FL            | Lisa Blanck             | Altamonte Springs, FL |
| Diana Baerveldt      | Fort Lauderdale, FL     | Nichole Blankenship     | Tampa, FL             |
| Margaret Bahnsen     | Tampa, FL               | Nichole Blankenship     | Tampa, FL             |
| John Bailey          | Boca Raton, FL          | Lorraine Blount         | Dunedin, FL           |
| Donna Baillod        | HERNANDO, FL            | Tammy Bobbitt           | Palmetto, FL          |
| Cynthia Baily        | Pinellas Park, FL       | Karen Bond              | Jupiter, FL           |
| Terrie-Anne Bajorek  | Sarasota, FL            | Michael Bondoc          | Ellenton, FL          |
| Mary Sue Baker       | Sarasota, FL            | Karen Bonnell           | Tallahassee, FL       |
| Marietta Bala        | Estero, FL              | Rich Bornfreund         | Cape Coral, FL        |
| Joan Balfour         | Boynton Beach, FL       | Kevin Bostrom           | Sarasota, FL          |
| Regina Barakat       | Windermere, FL          | Bill Both               | Leesburg, FL          |
| Jerome Barber        | Haines City, FL         | David Bottomley         | Orlando, FL           |
| Jacquelyn Barnes     | Miami, FL               | Stacy Bouilland         | Boca Raton, FL        |
| Aaron Barnes         | West Palm Beach, FL     | Marie-Martine Bouillaud | Miami Beach, FL       |
| Joline Barth         | Jacksonville, FL        | Salene Bowers           | Tampa, FL             |

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|---------------------|------------------------|---------------------------|-----------------------|
| Ken Bowman          | Orlando, FL            | Angela Celli-Jones        | Jacksonville, FL      |
| Elizabeth Bowman    | Sarasota, FL           | Catherine Cendan          | Coral Gables, FL      |
| Sandra Boylston     | Sanford, FL            | Suzanne Cerniglia         | Lake Worth, FL        |
| Jenny Bramlette     | Wesley Chapel, FL      | Winifred Chambers         | Hillsboro Beach, FL   |
| Karin Braunsberger  | Saint Petersburg, FL   | Zoe Champion              | Sunny Isles Beach, FL |
| Heather Braut       | North Venice, FL       | Jo Chapman                | Mims, FL              |
| Melissa Bray        | St Petersburg, FL      | Gail Chase                | Fort Lauderdale, FL   |
| Randy Brehne        | Palm City, FL          | Elizabeth Chase           | Hollywood, FL         |
| Ginger Brewer       | Pensacola, FL          | Andrea Chisari            | Mims, FL              |
| Mary Bright         | Tampa, FL              | Starr Aka Shirlene Christ | Lake City, FL         |
| Sandra Britton      | Palm Coast, FL         | Bonnie Church             | Orlando, FL           |
| Juan Briz           | Coral Gables, FL       | Dorothy Cinato            | Navarre, FL           |
| Seanna Brock        | Lakeland, FL           | Jeanine Clancy            | Tallahassee, FL       |
| Peter Broderson     | Tallahassee, FL        | Carol Clark               | Seminole, FL          |
| Fred Brodsky        | Ft. Lauderdale, FL     | Michelle Clark            | Sarasota, FL          |
| Susan Brooks        | Jupiter, FL            | Carolyn Clark             | Englewood, FL         |
| Nicole Brostek      | Stuart, FL             | Eithne Clarke             | Orlando, FL           |
| Bob Brucker         | Bradenton, FL          | Joyce Coburn              | Cantonment, FL        |
| Jim Brunton         | Tampa, FL              | Alicia Cohen              | MÃ©xico, FL           |
| B Bryant            | Destin, FL             | Lawrence Cohen            | Hollywood, FL         |
| James Bucolo        | Deerfield Beach, FL    | Rhoda Cokee               | Lakeland, FL          |
| Terry Bulla         | Saint Augustine, FL    | John Colarulli            | Lake Worth, FL        |
| Jeremy Burch        | Miami Beach, FL        | Lincoln Cole              | Key West, FL          |
| Elena Burge         | Seminole, FL           | Belinda Collins           | Largo, FL             |
| Maureen Burke       | Palm Beach Gardens, FL | Sue Conaty                | North Palm Beach, FL  |
| Martha Burton       | Lakewood Ranch, FL     | John Conner               | Coconut Creek, FL     |
| Zachary Butler      | Niceville, FL          | Steven Cook               | Seminole, FL          |
| Rickey Buttery      | Cocoa, FL              | Thomas Copeland           | Fort Lauderdale, FL   |
| Jo Byers            | Umatilla, FL           | Yma Corrales              | Miami, FL             |
| Rebecca Byers       | Beverly Hills, FL      | Kay Corum                 | Heathrow, FL          |
| Cassie C            | Panama City Beach, FL  | Michelle Corzine          | Boynton Beach, FL     |
| Sheila Calderon     | Greenacres, FL         | Diane Cote                | Leesburg, FL          |
| Susan Campbell      | The Villages, FL       | Kathryn Coutcher          | Belleview, FL         |
| Christian Camphire  | Bradenton, FL          | Laurel Covington          | Lutz, FL              |
| Barbara Canning     | Lakeland, FL           | Diana Cowans              | Bradenton, FL         |
| Dona Carbone        | Tallahassee, FL        | Cyndi Cox                 | Jacksonville, FL      |
| Ps Card             | Ponte Vedra Beach, FL  | Barbara Coy               | Sarasota, FL          |
| David Carey-Kearney | Saint Augustine, FL    | N Coyle                   | Jensen Beach, FL      |
| Guy Cargulia        | Winter Park, FL        | George Craciun            | Thonotosassa, FL      |
| Janet Carlson       | Davie, FL              | Julie Craig               | Branford, FL          |
| Kim Carothers       | Clearwater, FL         | Dustin Cranor             | Wilton Manors, FL     |
| Debra Carter        | Temple Terrace, FL     | Holly Crawford            | St Petersburg, FL     |
| Marie Casagrande    | Fort Myers, FL         | Kevin Cresswell           | Delray Beach, FL      |



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|-----------------------|------------------------|---------------------|-----------------------|
| Stephen Crilly        | Palm Bay, FL           | Francisco Donath    | North Miami Beach, FL |
| Claire Cronin         | North Fort Myers, FL   | Marguerite Donnay   | Melbourne, FL         |
| Donald Crosby         | Tallahassee, FL        | Debbie Donnelly     | Sunrise, FL           |
| Elizabeth Cruickshank | Clearwater, FL         | Jimmy Doty          | Daytona Beach, FL     |
| Janell Curtis         | Crestview, FL          | Shelley Driskell    | Weeki Wachee, FL      |
| Elaine Curtis         | Dunedin, FL            | Cynthia Driver      | Orlando, FL           |
| Cheryl Cusella        | Delray Beach, FL       | Helen Drwinga       | Apopka, FL            |
| Carrie Czech          | Valrico, FL            | Diane Dubendorff    | Clearwater, FL        |
| Chris Czedik          | Port Charlotte, FL     | Mary Duda           | Bradenton, FL         |
| Antoinette Daab       | Cape Coral, FL         | Joseph Duke         | Hollywood, FL         |
| Dezeray Danger        | miami, FL              | Mary Durrer         | Eastpoint, FL         |
| Susan Dannelly        | Ponte Vedra Beach, FL  | Julia Dutey         | Tallahassee, FL       |
| Michelle Darbro       | Fort Lauderdale, FL    | Ed Dye              | Seminole, FL          |
| Maggie Davidson       | Pompano Beach, FL      | Richard E Swope     | Palmetto Bay, FL      |
| Karen Davidson        | Venice, FL             | Sally Eadie         | Longwood, FL          |
| Ashlee Davis          | Trinity, FL            | Kenneth Eberly      | Ocala, FL             |
| A Davis               | Jacksonville, FL       | Monique Eigenbauer  | Casselberry, FL       |
| Clarette Davis        | Kissimmee, FL          | Diane Eisenhower    | Vero Beach, FL        |
| Cyndi Davison         | WESLEY CHAPEL, FL      | Cynthia Elia        | Minneola, FL          |
| Gabriel De La Iglesia | Miami, FL              | Maurine Elliott     | Summerfield, FL       |
| Thom Deasy            | Flagler Beach, FL      | Rachel Ellis        | Bartow, FL            |
| Lin Deats             | Palm Beach Gardens, FL | Catherine Elverston | Gainesville, FL       |
| Anthony Decarlo       | Kissimmee, FL          | Regina Embry        | Gainesville, FL       |
| Crystal Delapaz       | Fellsmere, FL          | Linda S Emmel       | Plant City, FL        |
| Barbara Delgado       | Miami, FL              | Matt Emmer          | Plantation, FL        |
| Cathy Delia           | Cape Coral, FL         | Gayla Endahl        | Auburndale, FL        |
| Alfredo Dellasavia    | Beverly Hills, FL      | Cherie Epley        | Clearwater Beach, FL  |
| Loretta J Delong      | Ft Lauderdale, FL      | Arlene Epperson     | Melrose, FL           |
| Dave Delson           | Boca Raton, FL         | Leonard Epstein     | Port St Lucie, FL     |
| Janet Deluca          | N Ft Myers, FL         | Drorit Erickson     | Sarasota, FL          |
| William Deluccia      | Indialantic, FL        | Jorge Estomba       | Hialeah, FL           |
| Gudrun Dennis         | Gainesville, FL        | Elissa Eunice       | Winter Park, FL       |
| Lea DERENCE           | Naples, FL             | John Evrard         | Cocoa, FL             |
| John Dervin           | Apopka, FL             | Emanuel Falcone     | Fort Myers, FL        |
| Summer Devlin         | Merritt Island, FL     | Carol Farber        | Miami, FL             |
| Myra Dewhurst         | Nokomis, FL            | Nancy Farmer        | Greenacres, FL        |
| Susan Dewitt          | Largo, FL              | Suzanne Fejes       | Pompano Beach, FL     |
| Stephen Dickstein     | Clermont, FL           | Paula Fenda         | Boynton Beach, FL     |
| Gloria Diggle         | Fort White, FL         | John Fernandez      | Boca Raton, FL        |
| Adrienne Diprima      | Tavernier, FL          | Cynthia Ferrell     | Longwood, FL          |
| Vincent Disanto       | Port St Lucie, FL      | Jessie Ferri        | Valrico, FL           |
| Linda Ditsky          | Boca Raton, FL         | Stephan Filsinger   | Lakeland, FL          |
| Elizabeth Dodd        | Boca Raton, FL         | Scott Finamore      | Dunnellon, FL         |

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|--------------------|----------------------|---------------------|------------------------|
| Steffi Finnerty    | Hernando, FL         | A Goodman           | Estero, FL             |
| Joseph Finocchiaro | Punta Gorda, FL      | Leslie Goodrich     | Tampa, FL              |
| John Finocchiaro   | Melbourne Beach, FL  | Amanda Gordon       | Sanford, FL            |
| William Fisk       | Palm Bay, FL         | Duane Gore          | Trinity, FL            |
| Karen Fisk         | Rotonda West, FL     | Daniel Gormley      | Sarasota, FL           |
| Melissa Fitzgerald | Fort Lauderdale, FL  | M. Va Grady         | Indianalantic, FL      |
| Kathryn Flood      | Stuart, FL           | Sherry Graff        | Cape Coral, FL         |
| Jessica Flores     | Weston, FL           | Karyn Graham        | Tampa, FL              |
| C.J. Fogarty       | Daytona Beach, FL    | Gabrielle Granofsky | Brooksville, FL        |
| James Forero       | Boca Raton, FL       | Cathy Grassi        | Naples, FL             |
| Linda Fowler       | Tampa, FL            | Vaughan Greene      | Inlet Beach, FL        |
| Mark Fox           | Orlando, FL          | Glenn Greenwald     | Palm Coast, FL         |
| Denise Fox         | Gainesville, FL      | Patricia Gregory    | Ponte Vedra, FL        |
| Moana Maria Franco | Miami, FL            | Lee Grey            | Naples, FL             |
| Alicia Frecker     | Brandon, FL          | Kimberly Gronemeyer | Tampa, FL              |
| L Freedman         | Sarasota, FL         | Jamie Gross         | Pembroke Pines, FL     |
| Rachel Friedland   | Clermont, FL         | Richard Grove       | New Smyrna Beach, FL   |
| Stephen Frink      | Key Largo, FL        | Mark Grzegorzewski  | St Petersburg, FL      |
| Wendy Fuchs        | Neptune Beach, FL    | Joanne Gura         | Naples, FL             |
| Ivan Fuentes       | Orlando, FL          | John Gusmano        | Margate, FL            |
| Cheryl Gaiefsky    | Longwood, FL         | Mary Gutierrez      | Pensacola, FL          |
| Theresa Galante    | Stuart, FL           | Laura Guttridge     | Vero Beach, FL         |
| Tito Galdo         | The Villages, FL     | Yukari Hagio        | Boca Raton, FL         |
| Croitiene Ganmoryn | Ocala, FL            | Glenn Haig          | Naples, FL             |
| Mary Garcin        | Tampa, FL            | Janice Haley        | Davenport, FL          |
| Alice Gard         | Naples, FL           | Silvia Hall         | Boca Raton, FL         |
| Va Garesche        | Fort Myers Beach, FL | Todd Hammond        | Winter Haven, FL       |
| Elizabeth Garratt  | St Augustine, FL     | Linda Hamrell       | Largo, FL              |
| Christine Gasco    | Tarpon Springs, FL   | Susan Hancock       | Punta Gorda, FL        |
| George Gaskill     | Cocoa, FL            | Cecelia Hancock     | Fort Lauderdale, FL    |
| Melissa Gaskins    | Tallahassee, FL      | Debra Hand          | Hobe Sound, FL         |
| Amanda Gates       | Pensacola, FL        | James Hanson        | Winter Park, FL        |
| Fay Gauster        | Tallahassee, FL      | Lisa Harding        | Jacksonville, FL       |
| Greg Gazzana       | Brooksville, FL      | Ann Hardy           | Sebring, FL            |
| Linda Gazzola      | Navarre, FL          | Frankie Harris      | Cantonment, FL         |
| Connie Geller      | Jacksonville, FL     | Julie Harrison      | Melbourne, FL          |
| Anne Geloran       | St. Augustine, FL    | Jamie Harrison      | Palm Beach Gardens, FL |
| Ana Gerlach        | Tampa, FL            | Jonathan Hartman    | Pompano Beach, FL      |
| Kathlyn Gilpin     | Bradenton, FL        | Susan Hartman       | Gainesville, FL        |
| Barbara Giorgio    | Largo, FL            | Fran Hatch          | Ponte Vedra Beach, FL  |
| Jordan Glass       | Tampa, FL            | Barbara Hauck       | Largo, FL              |
| Helen Goldenberg   | Tamarac, FL          | Carolyn Hawks       | Pensacola, FL          |
| Lyle Goldman       | West Palm Beach, FL  | Douglas Hay         | Dunnellon, FL          |

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|---------------------|-----------------------|---------------------|------------------------|
| Susan Hayes         | Homosassa, FL         | Alys Ibarra         | Apopka, FL             |
| William Heer        | Cocoa, FL             | Danielle Ifrah      | Pembroke Pines, FL     |
| Viktoria Hegelund   | Weston, FL            | Carol Ilic          | Vero Beach, FL         |
| Amy Heicher         | Orange Park, FL       | Harwood Ives        | Crawfordville, FL      |
| Richard Helms       | Leesburg, FL          | Robin Iwaniec       | Bartow, FL             |
| Jeff Helyer         | Oakland Park, FL      | Lisa Jacobson       | Tallahassee, FL        |
| Miriam Hemphill     | Gainesville, FL       | Aracelis Jaffe      | Orlando, FL            |
| Tamara Hendershot   | El Portal, FL         | Martha James        | Kissimmee, FL          |
| Michael Hendrick    | Pensacola, FL         | Judith James        | Naples, FL             |
| Eric Hensgen        | Tampa, FL             | Elizabeth Jarquin   | Coral Gables, FL       |
| Tanya Hernandez     | Wildwood, FL          | Jan Jennings        | Ocoee, FL              |
| Sonia Hernandez     | Largo, FL             | Nicole Jimenez      | Aventura, FL           |
| Sonia Hernandez     | Largo, FL             | Wendy Joffe         | Miami, FL              |
| Armando Hernandez   | Palmetto Bay, FL      | Kiara Johnson       | Lutz, FL               |
| Bee Herrmann        | Sanford, FL           | Ruth Johnson        | Sun City Center, FL    |
| Susanne Hesse       | Alachua, FL           | Barbara Johnson     | Palm Beach Gardens, FL |
| Tresa Hibben        | Vancouver, FL         | Jo Jones            | Clearwater, FL         |
| Tami Hillman        | Cocoa Beach, FL       | Maryn Jones         | Holiday, FL            |
| Jamie Hines         | Tampa, FL             | Judy Jones          | Bellevue, FL           |
| Danielle Hipworth   | Orlando, FL           | Don Jones           | Debary, FL             |
| Robert Hobe         | Palm City, FL         | Scharley Jordan     | Deerfield Beach, FL    |
| Howard Hochman      | Sarasota, FL          | Tara Jordan         | Cooper City, FL        |
| Harry Hoffman       | Cape Coral, FL        | Elena Jurgela       | Titusville, FL         |
| Felicity Hohenshelt | Jacksonville, FL      | Rick K.             | Boca Raton, FL         |
| Debora Hojda        | Miami, FL             | Francine Kagen      | Coconut Creek, FL      |
| Wendy Holmquist     | Fernandina Beach, FL  | Carolyn Kalmus      | Pompano Beach, FL      |
| Lawrence Holtzman   | Miami, FL             | Mary Kane           | Tallahassee, FL        |
| Thomas Hoover       | Lutz, FL              | Dave Karrmann       | Jacksonville, FL       |
| Melissa Horn        | Miami, FL             | Dave Karrmann       | Jacksonville, FL       |
| Porter Horne        | Fort White, FL        | Donna Katz          | Odessa, FL             |
| Gary Hoskie         | Ponte Vedra Beach, FL | Peggy Kauffman      | Bay Pines, FL          |
| Chilina Hoskins     | Englewood, FL         | Irene Kaufman       | Ponte Vedra Beach, FL  |
| Denise Hosta        | Fort Myers, FL        | Robert Keiser       | Miami, FL              |
| Cheryl Hotovec      | Jacksonville, FL      | Sharon Keller       | Ocala, FL              |
| Tara Hottenstein    | Gulfport, FL          | Harvey Kerstein     | Clearwater, FL         |
| Meghan Houston      | Lehigh Acres, FL      | Paul D Kidd         | Gainesville, FL        |
| Debra Hoven         | Palm Harbor, FL       | Brett Kieslich      | Davenport, FL          |
| Va Howley           | Fort Myers, FL        | Shelley King        | Flagler Beach, FL      |
| Cyndi Hunt          | Tallahassee, FL       | Cheyenne Kirschbaum | Tamarac, FL            |
| Lisa Hurley         | Cape Coral, FL        | Meryl Klein         | Gainesville, FL        |
| Emily Hutchins      | Pinellas Park, FL     | Howard Klein        | Punta Gorda, FL        |
| Mark Hydro          | Palmetto Bay, FL      | Elizabeth Kleissler | Melbourne Beach, FL    |
| Jt Hyland           | port orange, FL       | Terri Knutson       | Fleming Island, FL     |

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|------------------------|----------------------|-------------------------|------------------------|
| Richard Kobrenski      | North Port, FL       | Dennis Lintz            | Cocoa, FL              |
| Benjamin Korray        | Miami Shores, FL     | Timothy Lippert         | Riverview, FL          |
| Diane Kossman          | Ft Lauderdale, FL    | Krista Lohr             | Sarasota, FL           |
| Jess Kost              | Miami, FL            | David Lopera            | north miami beach, FL  |
| Barbara Kotick         | Orlando, FL          | Pedro LopezIII          | Delray Beach, FL       |
| Maureen Kowsky         | Seminole, FL         | Laird Lorenz            | Gainesville, FL        |
| Brandon Kozak          | St. Cloud, FL        | Hilary Lubin Rausher    | Lake Worth, FL         |
| David Kranz            | Palm Harbor, FL      | Annmari Lundin          | Casselberry, FL        |
| Donna Krbavac          | Oakland Park, FL     | Andy Lynn               | Pensacola, FL          |
| Michelle Kretzer       | North Port, FL       | Mai Lynn M              | Boynton Beach, FL      |
| Jane Kriebel           | Tampa, FL            | Lisa Macdonald          | Englewood, FL          |
| K Krupinski            | Cocoa Beach, FL      | Arlene Macintosh        | Weston, FL             |
| Joe Kuczynski          | North Port, FL       | Ramsay Macleod          | Lake Worth Beach, FL   |
| Alycen Labarca         | Sebastian, FL        | Chris Madden            | Royal Palm Beach, FL   |
| Elena Lacorte          | Jensen beach, FL     | Valeria Madrid          | Miami, FL              |
| Nancy Lambert          | Naples, FL           | Tom Maguire             | Bonita Springs, FL     |
| Doug Landau            | St Petersburg, FL    | Elizabeth Major         | Gulf Breeze, FL        |
| Elissa Landes Spagnolo | Highland Beach, FL   | Abigail Makarov         | North Miami Beach, FL  |
| Lynn Landis            | Boca Raton, FL       | Sheila Mandell          | Fort Lauderdale, FL    |
| Kathleen Lang          | Lithia, FL           | Jerry Manzo             | Islamorada, FL         |
| Randi Langas           | St Petersburg, FL    | Donna Mar               | Sebastian, FL          |
| Rocio Lario            | Naples, FL           | Lj Marcelli             | Seminole, FL           |
| Daniel Lawrence        | Dunedin, FL          | Timarie Maske           | The Villages, FL       |
| Marianne Lazarus       | Melbourne, FL        | Sade Mateo              | Miami, FL              |
| Andrew Lazin           | Deltona, FL          | Dawn Matta              | Riverview, FL          |
| Douglas Leatherbury    | Fernandina Beach, FL | Alana Mawson            | Lady Lake, FL          |
| Va Leblanc             | Summerfield, FL      | Donna May               | San Antonio, FL        |
| Linda Lee              | Plantation, FL       | Robin Mayer             | Cooper City, FL        |
| Chase Leonard          | Cocoa beach, FL      | Lisa Mazzola            | Tampa, FL              |
| Tammy Lettieri         | Coconut Creek, FL    | Suzann Mcalister        | Fern Park, FL          |
| Stephanie Levenston    | Boca Raton, FL       | Diane Mcalister         | Palm Beach Gardens, FL |
| David Levinson         | Coral Springs, FL    | Nancy McBride           | Palm Beach Gardens, FL |
| Herbert Levy           | Delray Beach, FL     | Vicki Mcbroom           | Milton, FL             |
| Stephanie Lewis        | Ponte Vedra, FL      | Gloria & Jack Mccluskey | Pembroke Pines, FL     |
| Larry Lewis            | Winter Garden, FL    | Nancy Mccurdy           | Vero Beach, FL         |
| Norman Lewis           | Weston, FL           | Patricia Mcdonald       | Winter Park, FL        |
| Nan Lighter            | Tequesta, FL         | Robert Mcfarland        | Hollywood, FL          |
| Vanessa Lima           | Miami, FL            | Brian Mcfarland         | Big Pine Key, FL       |
| Sara Lindabury         | Fort Myers, FL       | Robert Mcgarry          | bradenton, FL          |
| Susan Linden           | Palm Bay, FL         | Randy Mcgrath           | Vero Beach, FL         |
| Verna Lindskoog        | Leesburg, FL         | Heather Mcgregor        | Oldsmar, FL            |
| Naomi Linkous          | Sarasota, FL         | Karen Mchugh            | Riverview, FL          |
| Lawrence Lintner       | Cape Coral, FL       | Darrin Mckeehen         | Jacksonville, FL       |

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|----------------------|----------------------|------------------------|-----------------------|
| Joanne Mcmillan      | Ocala, FL            | Sarah Mullins          | Miami, FL             |
| Catherine Mcnamara   | Orlando, FL          | Sandra Murphy          | Oakland Park, FL      |
| Cheryl Mcpheron      | Mayo, FL             | Andrew Muss            | St Petersburg, FL     |
| Eleanor Mcveigh      | Pinellas Park, FL    | Gloria Muszynski       | Flagler Beach, FL     |
| Denise Mcvicker      | Fanning Springs, FL  | Rebecca Muzychka       | Fort Lauderdale, FL   |
| Joanne Meagher       | CORAL GABLES, FL     | Sonya Myers            | Malabar, FL           |
| Tina Mears           | Seminole, FL         | Lillie Mysel           | Deerfield Beach, FL   |
| Tatiana Medina       | Miami, FL            | Danielle Name*L'Ecuyer | Jacksonville, FL      |
| Miriam Medina        | Orlando, FL          | Maria Narcis           | Miami, FL             |
| James Mejuto         | Palm Coast, FL       | Helen Nathanson        | Tallahassee, FL       |
| Elizabeth Melo       | Orlando, FL          | Asuri Naya             | Sunny Isles Beach, FL |
| Va Mendez            | Hollywood, FL        | Merle Neidell          | Riviera Beach, FL     |
| Redelisa Mendoza     | North Miami, FL      | Tammy Nelson           | Clermont, FL          |
| Mari Mennel-Bell     | Fort Lauderdale, FL  | Kim Neumann            | Jacksonville, FL      |
| Matilde Mesavage     | wp, FL               | Robert Nobrega         | Davenport, FL         |
| Margrit Messenheimer | Sarasota, FL         | Pam Nolan              | Wilton Manors, FL     |
| Colonel Meyer        | North Port, FL       | Christine Norman       | Cocoa, FL             |
| Patricia Ann Micek   | Boca Raton, FL       | Lisa Northrup          | Tampa, FL             |
| Nancy Milewski       | Pembroke Pines, FL   | Patricia Norton        | Melbourne, FL         |
| Victoria Milla       | Weston, FL           | Judith Norwine         | Lakeland, FL          |
| Stephanie Miller     | Orlando, FL          | Linda Novkov           | Cape Coral, FL        |
| Diane Miller         | Leesburg, FL         | Renae Nowicki          | Spring Hill, FL       |
| Heather Miller       | Palmetto Bay, FL     | P Nunez                | Summerfield, FL       |
| Caroline Miller      | St Petersburg, FL    | Michael Nutini         | Delray Beach, FL      |
| Larry Miller         | Defuniak Springs, FL | Marck Oconnell         | Tampa, FL             |
| Todd Milligan        | Punta Gorda, FL      | Shari Oconnor          | Tampa, FL             |
| Jacqueline Mills     | Kissimmee, FL        | John O'Connor          | Saint Augustine, FL   |
| Anthony Miragliotta  | Venice, FL           | Annmarie Ohara         | Ponte Vedra Beach, FL |
| Mikeanthony Moffa    | Oviedo, FL           | Annmarie Ohara         | Ponte Vedra Beach, FL |
| Emelie Molina        | Miami, FL            | Annmarie Ohara         | Ponte Vedra Beach, FL |
| Thomas Monroe        | Pompano Beach, FL    | Richard Ohlendorf      | Lakewood Ranch, FL    |
| Frank Montilli       | Malabar, FL          | Dawn Ohlsson           | Sarasota, FL          |
| Monica Moody         | Marco Island, FL     | Claudette Ohsann       | Naples, FL            |
| Karyn Morales        | Saint Cloud, FL      | Victoria Olson         | Oakland Park, FL      |
| Juan Morales         | Saint Cloud, FL      | Victoria Olson         | Fort Lauderdale, FL   |
| Judy Moran           | Panama City, FL      | Dean Onessimo          | West Palm Beach, FL   |
| Claire Morda         | Sarasota, FL         | Jennifer Orem          | Fort Lauderdale, FL   |
| Teresa Moreyra       | Saint Augustine, FL  | Bryan Ossa             | Miami, FL             |
| Cathrine Moriarty    | Osprey, FL           | Tim Oswald             | Wilton Manors, FL     |
| Susan Morris         | PALMETTO, FL         | Geri Ott               | Matlacha, FL          |
| Barb Morrison        | Clearwater, FL       | Cynthia Owen           | Lake Worth, FL        |
| Douglas Morrison     | Key Largo, FL        | Luisa P                | Miami Beach, FL       |
| Susan Muller         | Vero Beach, FL       | Anne P.                | Apalachicola, FL      |

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|--------------------|-----------------------|---------------------|------------------------|
| Stephen Paddock    | Sarasota, FL          | Adriana Puentes     | Miami, FL              |
| Amanda Padilla     | Lakeland, FL          | Quinten Putnam      | Pompano Beach, FL      |
| Andre Padilla      | Miami, FL, FL         | Quinten Putnam      | Pompano Beach, FL      |
| Leslie-Ann Pagan   | Tampa, FL             | Laurie Putnam       | West Palm Beach, FL    |
| Tami Palacky       | Port Saint Lucie, FL  | Stevan Radojevic    | Jupiter, FL            |
| Elizabeth Paramore | Tampa, FL             | Kathryn Raines      | Valrico, FL            |
| Aj Paris           | Boca Raton, FL        | Glenis Ramirez      | West Palm Beach, FL    |
| Tammy Paschal      | Fort Lauderdale, FL   | Kassandra Ramirez   | Miami, FL              |
| Joan Pasionek      | Hobe Sound, FL        | Laura Ramon         | Niceville, FL          |
| Tami Pasquel       | Saint Petersburg, FL  | Janine Ramos-Aponti | Lantana, FL            |
| Erika Patronick    | Lantana, FL           | Sandy Ranallo       | Boca Raton, FL         |
| Mary Pattison      | Fort Myers, FL        | Barbara Raskin      | Lake Worth, FL         |
| Francisco Paz      | Miami, FL             | Randy Raspotnik     | Casselberry, FL        |
| Stephanie Peak     | Nokomis, FL           | Kim Raubolt         | Fort Myers, FL         |
| Nancy Pearson      | Stuart, FL            | Rita Reagon         | DFB, FL                |
| B Peet             | Pensacola, FL         | Christine Reeder    | Sebring, FL            |
| Benji Pepper       | Tampa, FL             | Linda Regan         | Davie, FL              |
| Tracy Perez        | Naples, FL            | Barbara Regan       | Jacksonville, FL       |
| Sofia Perez        | Sunny Isles Beach, FL | Marlys Reid         | Cocoa, FL              |
| Robert Perinetti   | Bradenton, FL         | Geraldine Remington | Winter Garden, FL      |
| Nina Perino        | Palm Harbor, FL       | Amanda Rewinkel     | Merritt Island, FL     |
| Leize Perlmutter   | Naples, FL            | Irma Rey            | Miami, FL              |
| Judith Peter       | Port Charlotte, FL    | Kelly Reymers       | Tampa, FL              |
| Brittany Peters    | Palmetto, FL          | Margaret Reynoso    | St Petersburg, FL      |
| Mat Petro          | Holiday, FL           | Yarais Reyor        | Miami Lakes, FL        |
| Kathleen Phillips  | Wellington, FL        | Rachael Riccobene   | Panama City, FL        |
| Maryann Piccione   | New Port Richey, FL   | Sharon Rich         | South Daytona, FL      |
| Emma Picton        | Orlando, FL           | Lynn Richardson     | Pinellas Park, FL      |
| Sabina Pinto       | Sarasota, FL          | Chey Richmond       | Pensacola, FL          |
| Jonathan Piper     | Clearwater, FL        | Kimberly Rigano     | Stuart, FL             |
| Valerie Pitaluga   | Plantation, FL        | Kate Rigatuso       | Sarasota, FL           |
| Hector A. Pol      | Seminole, FL          | Marissa Rizzo       | Palm Beach Gardens, FL |
| Carla Pomeroy      | Zephyrhills, FL       | Brett Robert        | Coral Springs, FL      |
| Susan Ponchot      | Sunrise, FL           | James Robertson     | Clearwater, FL         |
| Patricia Pooch     | Hernando, FL          | T.L. Robeson        | Oldsmar, FL            |
| Edwin Poole        | Cocoa, FL             | Judith Robinson     | Hollywood, FL          |
| Donna Pope         | Tampa, FL             | Hattie Robinson     | Lake Worth, FL         |
| M Port             | Boynton Beach, FL     | Sawyer Roddenberry  | Jacksonville, FL       |
| Robert Posch       | Saint Petersburg, FL  | Jane Rodgers        | Pensacola, FL          |
| Lina Poskiene      | Delray beach, FL      | Manuel Rodriguez    | Boca Raton, FL         |
| Jo-Ann Preen       | Live Oak, FL          | Rusty Rollings      | Palm Coast, FL         |
| Alvera Pritchard   | Miami Beach, FL       | James Ropicki       | Gainesville, FL        |
| Mary Pruitt        | Clearwater, FL        | Tim Rose            | Lighthouse Point, FL   |

|                       |                        |                     |                        |
|-----------------------|------------------------|---------------------|------------------------|
| Marsha Ross           | Palm Harbor, FL        | Patti Seltz         | Naples, FL             |
| David Ross            | Holiday, FL            | S Serne             | Tampa, FL              |
| Beverley Roth         | Jensen Beach, FL       | Susan Severino      | Frostproof, FL         |
| Holly Rothkopf        | Boynton Beach, FL      | Kathleen Sewright   | Winter Springs, FL     |
| Laura Rouveyrol       | Palm Bay, FL           | Mary Shabbott       | Punta Gorda, FL        |
| Elaine Rozak          | Ocala, FL              | Ralph Shannon       | Hudson, FL             |
| Maryjo Rubin          | Palm Beach Gardens, FL | Mike Shasky         | Fort Lauderdale, FL    |
| John Rumpf            | Merritt Island, FL     | Donald Shaw         | Saint Petersburg, FL   |
| Dawn Rutigliano       | Tampa, FL              | Bea Shemberg        | Hollywood, FL          |
| Edward Rutkowski      | Palm Beach Gardens, FL | Kara Sherman        | Orlando, FL            |
| Susan Ryan-Nelson     | Titusville, FL         | Colette Sherrington | North Fort Myers, FL   |
| Andrew S              | Coconut Creek, FL      | Staci Sherwood      | Boca Raton, FL         |
| Francisco Sacasa      | Miami, FL              | Linda Shirey        | Okeechobee, FL         |
| Falisha Sachon        | Seminole, FL           | Carole Shurtz       | Boca Raton, FL         |
| Emily Sagovac         | Wellington, FL         | A Sid               | Miami, FL              |
| Catherine Saint-Clair | Stuart, FL             | Jean Siegel         | Port St.Lucie, FL      |
| Anita Sallas          | Oviedo, FL             | Suzy Siegmann       | Temple Terrace, FL     |
| Karen Sands           | Vero Beach, FL         | Denise Siele        | Boca Raton, FL         |
| Jillian Sang          | Coral Springs, FL      | Wojciech Sikora     | Miami, FL              |
| Noella Santerre       | Nokomis, FL            | K Sill              | Spring Hill, FL        |
| Nehemias Santiago     | North Miami Beach, FL  | Milta Silva-Garcia  | Windermere, FL         |
| Toni Saul             | Key Biscayne, FL       | Barry Silvers       | Deerfield Beach, FL    |
| Maurice Saunders      | port charlotte, FL     | Kevin Silvey        | Seminole, FL           |
| Belinda Scarborough   | Saint Petersburg, FL   | Lizbeth Simpson     | Pinellas Park, FL      |
| Gwenn Schemer         | Wellington, FL         | Carl Skipworth      | Hollywood, FL          |
| Elizabeth Scherbak    | Venice, FL             | Ed Skowron          | Largo, FL              |
| Robert Schicker       | Crestview, FL          | Paul Slack          | Cutler Bay, FL         |
| Morley Schloss        | Loxahatchee, FL        | Stephen Sleeper     | Bonita Springs, FL     |
| Kimberly Schmidt      | De Leon Springs, FL    | Sandra Smart        | Orlando, FL            |
| Jane Schnee           | Sebastian, FL          | Monica Smilko       | Jacksonville, FL       |
| Brittany Schnitzler   | Seffner, FL            | Carole Smith        | Mount Dora, FL         |
| Eric Schonberger      | Clearwater, FL         | Emily Smith         | Green Cove Springs, FL |
| Kimberly Schooley     | Atlantic Beach, FL     | Ellen Smith         | Naples, FL             |
| Janet Schrager        | Fort Lauderdale, FL    | Lenoir Smith        | Jacksonville, FL       |
| Tami Schreurs         | Boynton Beach, FL      | Linda Smithe        | Jupiter, FL            |
| Diane Schulbach       | Gainesville, FL        | Merry Smoller       | South Miami, FL        |
| Richard Schultz       | Bartow, FL             | Lynn Snyder         | Loxahatchee, FL        |
| Joyce Schwartz        | Altamonte Springs, FL  | Louisa Solari       | North Miami, FL        |
| Barbara Schwartz      | Ocala, FL              | Tom Solinger        | Ft. Myers, FL          |
| Sandi Schwartz        | Boca Raton, FL         | Margaret Sommer     | Orlando, FL            |
| Kim Scott             | Deltona, FL            | James Sorrells      | Minneola, FL           |
| Robert Scott          | Ozona, FL              | Caryl Speck         | Melbourne, FL          |
| Jennifer Scott        | Fort Myers Beach, FL   | Reginald Spengler   | Inverness, FL          |

|                         |                       |                      |                        |
|-------------------------|-----------------------|----------------------|------------------------|
| Jerry Spetsieris        | Miami Beach, FL       | John Thompson        | Saint Petersburg, FL   |
| Edward Sprague          | Fort Lauderdale, FL   | Janet Thompson       | Crawfordville, FL      |
| Emily Springsteen       | Southport, FL         | J Tizon              | Sunny Isles Beach, FL  |
| Leah Stables            | San Mateo, FL         | Cynthia Tolbert      | Ocala, FL              |
| Nancy Stamm             | Fort Pierce, FL       | Dennis Toll          | Sanibel, FL            |
| Elena Starr             | Citrus Springs, FL    | Mark Tooher          | Naples, FL             |
| Elena Starr             | Citrus Springs, FL    | Debra Topping        | North Port, FL         |
| Jan Stautz-Hamlin       | Clearwater, FL        | Sherry Toy           | Summerfield, FL        |
| Isabelle Stec           | key biscayne, FL      | Matthew Travers      | Bokeelia, FL           |
| Jim Steger              | St Petersburg, FL     | Linda Treuhaft       | Palm Harbor, FL        |
| Samantha Steigerwaldt   | Seminole, FL          | Christopher Tuccitto | Hollywood, FL          |
| Zbignirew Stein         | Pt Charlotte, FL      | Rickert Tuck         | Oldsmar, FL            |
| Jack Steinberg          | Tampa, FL             | Barbara Tucker       | Wellington, FL         |
| Donald Steiner          | Sarasota, FL          | Daniel Uiterwyk      | VERO BEACH, FL         |
| Paula Stevens           | Orlando, FL           | Joseph Underwood     | Gulf Breeze, FL        |
| Nancy Stiefel           | Vero Beach, FL        | Suzanne Valencia     | West Melbourne, FL     |
| Gina Stiff              | Kissimmee, FL         | Maudie Valero        | Coral Gables, FL       |
| Chris Stiff             | Kissimmee, FL         | Catherine Vaughn     | Fort Myers, FL         |
| Kevin Stodolski         | coral springs, FL     | Kimberly Vaz         | Wesley Chapel, FL      |
| Peter Stone             | Tallahassee, FL       | Heather Vega         | Gotha, FL              |
| Angelique Stpierre      | Melbourne, FL         | Mario Velarde        | Hialeah, FL            |
| Greg Strauss            | North Miami Beach, FL | Eduardo Veliz        | South Miami, FL        |
| Deborah Sudduth         | Port Saint John, FL   | Sean Vennett         | Tampa, FL              |
| John Summers            | Port Charlotte, FL    | Mary Helen Venos     | Tallahassee, FL        |
| Sandy Sundquist         | Titusville, FL        | Linda Vesser         | Sarasota, FL           |
| Cheryl Swalheim         | Maitland, FL          | Leroy Vestal         | Vero Beach, FL         |
| John Swanson            | Indialantic, FL       | Celeste Vezolles     | Miami Beach, FL        |
| Laurie Tabor            | Lake Mary, FL         | Pamela Voller        | Vero Beach, FL         |
| Gabriella Tacher        | Sunny Isles Beach, FL | Michael Wagner       | Davie, FL              |
| Jessica Taliaferro      | Palm Bay, FL          | Priscilla Wagner     | Dunedin, FL            |
| Stefan Taylor           | Tampa, FL             | John Waite           | Vero Beach, FL         |
| Sarah Taylor            | Deltona, FL           | Kelly Walker         | Miami, FL              |
| Stefan Taylor           | Tampa, FL             | William Walker       | satellite beach, FL    |
| Fran Teders             | Merritt Island, FL    | Mary Walls           | Jacksonville, FL       |
| Ezekiel Teffere         | North Miami, FL       | Ellen Walsh          | Gulf Breeze, FL        |
| Nancy Telese            | Palm Beach, FL        | Patricia Walsh       | Port Saint Lucie, FL   |
| Allie Tennant           | Fort Myers, FL        | Susan Walsh          | Palm Beach Gardens, FL |
| Susan Termini           | Merritt Island, FL    | Regina Walther       | Stuart, FL             |
| Maria Valentina Termini | North Miami Beach, FL | Martha Waltman       | Newberry, FL           |
| Barbara Terrill         | Ponte Vedra Beach, FL | Karen Waltman        | Ocala, FL              |
| Renee Thomas            | Winter Park, FL       | Shirley Waltz        | Oakland Park, FL       |
| Cecilia Thomas          | Lake Worth, FL        | Kathi Ward           | St Petersburg, FL      |
| Tom Thompson            | Sarasota, FL          | Diana Ward           | Saint Petersburg, FL   |



|                    |                             |                   |                      |
|--------------------|-----------------------------|-------------------|----------------------|
| Jessica Wardlaw    | Melrose, FL                 | Heather Wolfe     | Maitland, FL         |
| Tara Warfield      | Estero, FL                  | Bennie Woodard    | Saint Petersburg, FL |
| Carolyn Warner     | Saint Petersburg, FL        | Heather Woodman   | Orlando, FL          |
| Scott Warner       | Orlando, FL                 | Teresa Woods      | Wesley Chapel, FL    |
| Sylvia Warner      | Lake Worth, FL              | Rob Woods         | Lithia, FL           |
| Leigh Warren       | Spring Hill, FL             | Mary Workman      | Deland, FL           |
| Maureen Wasley     | St Petersburg, FL           | Beth Wright       | Apalachicola, FL     |
| Mandi Waters       | Indian Harbour Beach,<br>FL | Nora Wyatt        | Gulf Breeze, FL      |
| Elyce Waters       | West Palm Beach, FL         | Linda Yaffe       | Apollo Beach, FL     |
| Whitney Watters    | St Augustine, FL            | Andrea Yanez      | Pinecrest, FL        |
| Cheryl Watters     | Daytona Beach, FL           | Chad Z            | Davie, FL            |
| Catherine Way      | Winter Park, FL             | Cristina Zambrana | Davie, FL            |
| Steve Weber        | Indialantic, FL             | Juan Zea          | Hallandale Beach, FL |
| Alicia Weber       | Miami, FL                   | Steven Zeit       | Palm Bay, FL         |
| Robert Weinberg    | Hallandale Beach, FL        | Charlotte Zitis   | Rockledge, FL        |
| Mardy Weinstein    | Largo, FL                   | Ira Zlatkin       | Fort Myers, FL       |
| Arwen Weiss        | Orlando, FL                 | Kristine Zobrosky | Saint Augustine, FL  |
| Harriette Weller   | Largo, FL                   | Judith Zufi       | Coral Gables, FL     |
| Lasha Wells        | Saint Petersburg, FL        | Willy Aenlle      | Woodstock, GA        |
| Briana Wende       | Sunny Isles Beach, FL       | Carole Akers      | Grantville, GA       |
| Julia West         | Gulfport, FL                | Leslye Alvarez    | Tucker, GA           |
| Regan Westra       | Fernandina Beach, FL        | Arlene Anderson   | Dunwoody, GA         |
| Thomas White       | Saint Cloud, FL             | Art Auerbach      | Atlanta, GA          |
| Roger Whiteman     | Saint Augustine, FL         | Richard Battaglia | Atlanta, GA          |
| Otto Wildensteiner | Pensacola, FL               | Brad Beadles      | Decatur, GA          |
| George Wilder      | Naples, FL                  | Patricia Beaman   | Marietta, GA         |
| Debra Wile         | The Villages, FL            | Corey Benjamin    | Marietta, GA         |
| Jane Wiley         | Tampa, FL                   | Jay Besig         | Marietta, GA         |
| Rose Wilkins       | Saint Petersburg, FL        | David Block       | Columbus, GA         |
| Linda Williams     | Ft Lauderdale, FL           | Robyn Bolton      | Athens, GA           |
| Rob Williams       | Hollywood, FL               | Sam Booher        | Augusta, GA          |
| Barbara Williams   | Delray Beach, FL            | Kat Bowley        | Roswell, GA          |
| Shirley Williams   | Tamarac, FL                 | Samantha Boyce    | Atlanta, GA          |
| Pamela Williams    | Sebring, FL                 | Margot Brennan    | Marietta, GA         |
| Sara Williamson    | North Palm Beach, FL        | Richard Bright    | Atlanta, GA          |
| Holly Wilson       | Lake Worth, FL              | Lindsey Britt     | Manchester, GA       |
| Wendy Wish         | Orlando, FL                 | Tebias Brookins   | Winder, GA           |
| Stephanie Witkoski | Davie, FL                   | Dr John Brooks    | Tate, GA             |
| Nancy Wittenborn   | Clearwater, FL              | Anita Brown       | Atlanta, GA          |
| Dietlinde Wolf     | Miami, FL                   | Georgeta Burca    | Kennesaw, GA         |
| Darlene Wolf       | Naples, FL                  | Brandon Cahoon    | Roswell, GA          |
| Robert Wolf        | Naples, FL                  | Beth Caldwell     | Lilburn, GA          |
|                    |                             | Nicardo Campbell  | Atlanta, GA          |

|                  |                      |                    |                   |
|------------------|----------------------|--------------------|-------------------|
| Riley Canada li  | Marietta, GA         | Malia Hilliard     | Atlanta, GA       |
| Pat Carson       | Darien, GA           | Anderson Howington | Commerce, GA      |
| June Casey       | Duluth, GA           | Nan Hunter         | Atlanta, GA       |
| Jennifer Charles | Forest park, GA      | Ryan Jinks         | Savannah, GA      |
| Robbie Clay      | Norcross, GA         | Jenifer Johnson    | Marietta, GA      |
| Janell Copello   | Snellville, GA       | Elaine Johnson     | Hampton, GA       |
| Theresa Cromeans | Atlanta, GA          | Hitomi K           | Duluth, GA        |
| Sandy Crooms     | Clarkesville, GA     | Jeffrey Kalfut     | Atlanta, GA       |
| Laura D.         | Atlanta, GA          | Anita Karve        | Alpharetta, GA    |
| Jennifer Day     | Duluth, GA           | Sasha Kay          | Griffin, GA       |
| Terry De Simone  | St Simons Island, GA | Elizabeth Kelly    | Dalton, GA        |
| Rhonda Denton    | Alpharetta, GA       | Kate King          | Smyrna, GA        |
| Meredith Diamond | ATLANTA, GA          | Judy Klafta        | Hapeville, GA     |
| Vicki Dickinson  | Atlanta, GA          | Lisa Klein         | Acworth, GA       |
| Charles Dubose   | Marietta, GA         | Harry Knox         | Quitman, GA       |
| Kelly Eaves      | Loganville, GA       | Mark Koritz        | Atlanta, GA       |
| Julia Eisler     | Atlanta, GA          | Debbie Krapf       | valdosta, GA      |
| Kyle Emblar      | Atlanta, GA          | Joni Lamb          | Richmond Hill, GA |
| Charles Eyler    | Savannah, GA         | Charlotte Laughon  | Hoschton, GA      |
| Mark Farmer      | Winterville, GA      | Allister Layne     | CoNew Yorkers, GA |
| David Finch      | Kennesaw, GA         | Noble Lee          | Duluth, GA        |
| Lisa Fowlkes     | Colbert, GA          | Nancy Linder       | Hiram, GA         |
| Carla Freels     | Guyton, GA           | Deborah Lynch      | Gainesville, GA   |
| Charles Froelich | Decatur, GA          | Alan Maclamroc     | Smyrna, GA        |
| Stacey Fuller    | Savannah, GA         | John Magee         | Guyton, GA        |
| Deborah Goodness | Marietta, GA         | Dena Maguire Young | Dahlonega, GA     |
| Alex Graas       | Flowery Branch, GA   | Andy Malinofsky    | Woodstock, GA     |
| Eric Griffith    | Athens, GA           | Calvin Mannes      | Tiger, GA         |
| Janis Gummel     | Cleveland, GA        | Cynthia Manos      | Atlanta, GA       |
| Angela Gunn      | Pooler, GA           | Melody Martin      | Norcross, GA      |
| Linda Guthrie    | Atlanta, GA          | Melissa Martin     | Lilburn, GA       |
| Janet Habas      | Brookhaven, GA       | A Mathews          | Milner, GA        |
| Patrick Hanahan  | Bowdon, GA           | Allison Matthews   | Alpharetta, GA    |
| Dan Harrigan     | Kennesaw, GA         | Catherine McClain  | Cumming, GA       |
| Freya Harris     | Atlanta, GA          | Susan Mcfarland    | Acworth, GA       |
| Marie Harrison   | Canton, GA           | Debbie Mckevitt    | Lagrange, GA      |
| Marty Harrison   | Carrollton, GA       | Elizabeth Metcalf  | Roswell, GA       |
| Marta Hawkins    | Richmond Hill, GA    | Norbert Mietus     | Toccoa, GA        |
| Sarah Heath      | Sugar Hill, GA       | Emanuella Moã±Tez  | Pendergrass, GA   |
| Mary Hebblewhite | Sandy Springs, GA    | Mia Moss           | Douglasville, GA  |
| Alexander Heil   | Norcross, GA         | Marilyn Mueller    | Alpharetta, GA    |
| Ronald Heiman    | Atlanta, GA          | Kate Mullan        | Dallas, GA        |
| Peggy Hellen     | Roswell, GA          | Tameka Murrain     | Atlanta, GA       |

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|--------------------------|--------------------|---------------------|-----------------------|
| Ellyn Musser             | Atlanta,, GA       | Tabitha Thomasson   | Dahlonge, GA          |
| Fred Nadelman            | Savannah, GA       | Cathy Thompson      | Villa Rica, GA        |
| Gloria Navan             | Lawrenceville, GA  | Jay Trevari         | Norcross, GA          |
| Tracy Ng                 | Atlanta, GA        | First Turner        | Tucker, GA            |
| Sandy Norris             | Cedartown, GA      | Christina Vaccari   | Atlanta, GA           |
| Marco Pardi              | Lawrenceville, GA  | Jeffrey Valentine   | Peachtree Corners, GA |
| Christina Park           | Athens, GA         | Robin Vincent       | Mcdonough, GA         |
| Geneine Payne            | Canton, GA         | Elise Voigt         | Atlanta, GA           |
| Cade Peterson            | Atlanta, GA        | Melissa Walker      | Cartersville, GA      |
| Sam Pinheiro             | ATLANTA, GA        | Myrna West          | Bogart, GA            |
| Bonnie Poland            | Canton, GA         | Trisha Wheeler      | Mcdonough, GA         |
| Carolyn Porter           | Stone Mountain, GA | Carol Wilch         | Baconton, GA          |
| Melody Powell            | Smyrna GA, GA      | Suzanne Williams    | Savannah, GA          |
| Jean Pressoir            | Austell, GA        | Sammie Williams     | Decatur, GA           |
| Juanita Puntasecca       | Lilburn, GA        | Ellie Wolf          | Athens, GA            |
| Claudia Razooly          | Lilburn, GA        | Karen Wood          | Valdosta, GA          |
| Amber Reid               | Vidalia, GA        | Lk Woodruff         | Sharpsburg, GA        |
| Patricia Reynolds        | Atlanta, GA        | Cindy Wren          | Flowery Branch, GA    |
| Anthony Ricciardi        | Atlanta, GA        | Rhonda Wright       | Brookhaven, GA        |
| Alice Rim                | Buford, GA         | Linda Wuethrich     | Young Harris, GA      |
| Douglas & Elvira Rivalsi | Fayetteville, GA   | Maggie Zwettler     | Canton, GA            |
| Giancarlo Rocca          | Atlanta, GA        | Nap Alexander       | Kaneohe, HI           |
| Jim Rogers               | Woodstock, GA      | Debra Andrade       | Kaneohe, HI           |
| Nancy Rosales            | Helen, GA          | Harvey Arkin        | Honolulu, HI          |
| Carrol Rose              | Warner Robins, GA  | Roby Besly          | Honolulu, HI          |
| Bill Rubin               | Decatur, GA        | Bo Breda            | Pahoa, HI             |
| Bailey Salerno           | Atlanta, GA        | Harriet Burkholder  | Honokaa, HI           |
| Hannah Sandusky          | Springfield, GA    | Ru Carley           | Honaunau, HI          |
| Gisela Schloss-Birkholz  | Roswell, GA        | Carol Carpenter     | Honolulu, HI          |
| Carolyn Schoenborn       | Ellerslie, GA      | Katie Clifford      | Honolulu, HI          |
| Nancy Schultz            | Conley, GA         | Denise Colgrove     | Hilo, HI              |
| Radha Shenoy             | Alpharetta, GA     | Elle Cook           | Honolulu, HI          |
| Caro Shu                 | Atlanta, GA        | Matthew Crane       | Waimea, HI            |
| Tamara Shurling          | Guyton, GA         | Josephine Cristobal | Honolulu, HI          |
| Laurence Skirvin         | Villa Rica, GA     | Michael Dirosario   | Haiku, HI             |
| Kristi Smith             | Savannah, GA       | Dan Dowdall         | Lahaina, HI           |
| Gary Souders             | Dahlonge, GA       | Norm Dufresne       | Pahoa, HI             |
| Carla Stoutamyer         | Decatur, GA        | Frances Enriquez    | Honolulu, HI          |
| Half Moon Studio         | Cumming, GA        | Stephen Faes        | Kalaheo, HI           |
| Elak Swindell            | Waynesboro, GA     | Sandra Forgan       | Kihei, HI             |
| Abbie Tang               | Dublin, GA         | Ernest Fulton       | Honolulu, HI          |
| Tim Thilman              | Tucker, GA         | Marcia Galleher     | Pahoa, HI             |
| Woody Thomas             | CIARton, GA        | Michael Grinnell    | Kaunakakai, HI        |

|                      |                  |                            |                    |
|----------------------|------------------|----------------------------|--------------------|
| Shari Grounds        | Kailua, HI       | Susan Trombley             | KAPOLEI, HI        |
| Nancy Harter         | Lahaina, HI      | Susan Trombley             | Kapolei, HI        |
| Hilary Harts         | Makawao, HI      | Uma Veloo                  | Honolulu, HI       |
| Claudia Herfurt      | Hanalei, HI      | Pamela Waiolena            | Hilo, HI           |
| Leslie Hilles        | Pahoa, HI        | Christine Weingand         | Koloa, HI          |
| Martha Hodges        | Kailua Kona, HI  | Laurel Whillock            | Kailua Kona, HI    |
| Latham Horn          | Pearl City, HI   | Melinda Wood               | Honolulu, HI       |
| Robert Huber         | Honolulu, HI     | Duane Yee                  | Honolulu, HI       |
| Lorraine Iliya       | Haiku, HI        | Mary True                  | Pepeekeo, HI       |
| Alan Johnson         | Honolulu, HI     | Vee Adkins                 | Boise, ID          |
| Mari Kae             | Honolulu, HI     | Cathy Anderson             | Nampa, ID          |
| Etta Karth           | Pepeekeo, HI     | Gina Anson                 | Boise, ID          |
| Susanne Kiriatty     | Paia, HI         | Clarence Bolin             | Boise, ID          |
| Tess Kramer          | Kula, HI         | Gloria Carlton             | Hailey, ID         |
| Claire Kusakabe      | Honolulu, HI     | Carmen Chacon              | Pocatello, ID      |
| Cindy Lance          | Honolulu, HI     | Susan Chaloupka            | Boise, ID          |
| Laurie Leland        | Kailua, HI       | Mike Cohn                  | Boise, ID          |
| Mai Lopez            | Ewa Beach, HI    | Ellen Dexter               | Twin Falls, ID     |
| T Manabe             | Waipahu, HI      | Rosemarie Digiovanninorton | Kuna, ID           |
| Marilyn Markley      | Pahoa, HI        | Donna Dillard              | Kimberly, ID       |
| Mary Masters         | Kula, HI         | Renee Escalante            | Boise, ID          |
| Stephen Maxwell      | Kula, HI         | Kenneth Fisher             | Coeur D Alene, ID  |
| Laurie Mckeon        | Honolulu, HI     | Katherine Garcia           | Bolingbrook, ID    |
| Midge Miller         | Lahaina, HI      | C Gavin                    | Meridian, ID       |
| Asa Mills            | Honolulu, HI     | Dameon Hansen              | ID Falls, ID       |
| Sherrie Moore        | Pahoa, HI        | Barclay Hauber             | POLLOCK, ID        |
| Jeannine Moore       | Captain Cook, HI | Daniel Hawley              | Ketchum, ID        |
| Kirstin Morris       | Kapaa, HI        | June Heilman               | Pocatello, ID      |
| Wesley Nanamori      | Honolulu, HI     | Mark Helton                | Nampa, ID          |
| Joy Nelson           | Kihei, HI        | Leslie Holden              | Hailey, ID         |
| Michele Nihipali     | Hauula, HI       | Blair Hopkins              | Merdion, ID        |
| Lory Ono             | Kaneohe, HI      | Cheryl Kallenbach          | Winchester, ID     |
| Janice Palma-Glennie | Kailua Kona, HI  | Darwin Kellicut            | Bayview, ID        |
| Janice Palma-Glennie | Kailua Kona, HI  | Bob Kohli                  | Ketchum, ID        |
| Deborah Sevy         | Kailua Kona, HI  | Antonia Kuhn               | Boise, ID          |
| Elisabeth Sherman    | KAPAAU, HI       | Larry Lightner             | ID Falls, ID       |
| Jacqui Skill         | Lahaina, HI      | Chris Lima                 | Orofino, ID        |
| Douglas Stainbrook   | Kailua Kona, HI  | Robin Lorentzen            | Caldwell, ID       |
| Robin Swanson        | Honolulu, HI     | Jody Mahnken               | Boise, ID          |
| Judy Sweatland       | Volcano, HI      | Kay Merica                 | Hope, ID           |
| Terry Travis         | Ewa Beach, HI    | F. Gene Merica             | Hope, ID           |
| Terence Travis       | Ewa Beach, HI    | Terri Mills                | Dalton Gardens, ID |
| Barb Travis          | Ewa Beach, HI    | Lynne Murphy               | Adelaide, ID       |

Nicole Parker Twin Falls, ID  
 Susan Petersen Hailey, ID  
 Susan Petersen Hailey, ID  
 Gina Poole Ketchum, ID  
 Cheri Price Moscow, ID  
 James Roberts Sandpoint, ID  
 Annalise Robinson Boise, ID  
 Jeannie Ruple Post Falls, ID  
 Gustaf Sarkkinen Moscow, ID  
 Patricia Turner Boise, ID  
 James Vandinter Boise, ID  
 Jacque Vulcano Boise, ID  
 Gary Wattles Meridian, ID  
 Gisela Zech Boise, ID  
 Shaylene Ader-Steinhauser Kankakee, IL  
 Derek Adkisson Romeoville, IL  
 Angie Affolter Mundelein, IL  
 Susan Ainley Oak Lawn, IL  
 Dawn Albanese Elk Grove Village, IL  
 Brian Allen Minooka, IL  
 Jennifer Alongi Riverton, IL  
 Robert Ambos Bartlett, IL  
 Jeffrey Ambrose Wauconda, IL  
 Robert Anderson Chicago, IL  
 Carol Anderson Edwardsville, IL  
 Louise B Angelis Glenview, IL  
 Monica Aniszewski Harwood Hts, IL  
 Cynthia Arneson Bloomingdale, IL  
 Jim Atols Schaumburg, IL  
 Mel Austin Chicago, IL  
 Ellen Ayalin Chicago, IL  
 Peter Ayres Naperville, IL  
 Cory B Chicago, IL  
 Valerie Baffa Berwyn, IL  
 Jennifer Balanoff Westchester, IL  
 Garrick Balk South Elgin, IL  
 Patricia Bara Naperville, IL  
 Matthew Barre Elmhurst, IL  
 Brian J Barrett Glenview, IL  
 Richard Bartkowicz Hoffman Estates, IL  
 Conrad Bazylewski Evanston, IL  
 Paul Beach Emden, IL  
 Christian Beaudoin Oak Park, IL

Jennifer Beemer Chicago, IL  
 Margaret Beerman Glen Ellyn, IL  
 John Bender Hanover Park, IL  
 Eric Benson Champaign, IL  
 Julie Berberi St Charles, IL  
 Chris Berti urbana, IL  
 J Beverly Urbana, IL  
 Rebecca Bierbaum Alton, IL  
 Mimi Biskus Gurnee, IL  
 Mary Ann Black Caseyville, IL  
 Nadia Blan Palatine, IL  
 Ann Blanchard Rolling Meadows, IL  
 Jessica Blasingame Berkeley, IL  
 Cindy Blue Northbrook, IL  
 Alex A. Bobroff Plainfield, IL  
 Kimberly Bode Mahomet, IL  
 Bojana Bohinjac Chicago, IL  
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 Emma Bradshaw Aurora, IL  
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 Beth Braun Chicago, IL  
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 Karen Bravo Park Ridge, IL  
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 Linda Bridges Athens, IL  
 Helen Briner Chicago, IL  
 David Brodnax Oak Park, IL  
 Bettyann Brody BucksbaumGlenview, IL  
 Mark Brooker Chicago, IL  
 Gabriella Brown Chicago, IL  
 Nancy Brown Evanston, IL  
 Bradley Budnik Skokie, IL  
 Sharon Burke Chicago, IL  
 Nancy Burke Evanston, IL  
 Greg Burnet Berwyn, IL  
 Sylvia Byerley Wilmington, IL  
 Amalie Callahan Rock Island, IL  
 Amalie Callahan Rock Island, IL  
 Carolyn Campbell Chicago, IL  
 Donna Campbell Orland Park, IL  
 Jackie Candela Godfrey, IL

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| Kennedy Carlson        | Arlington Heights, IL | Sharon Derence           | Bolingbrook, IL   |
| Kevin Carroll          | Chicago, IL           | Judy Devault             | Peoria, IL        |
| Jennifer Carver        | Wheaton, IL           | Sarah Devine             | Morton, IL        |
| Kathy Casiello         | Lisle, IL             | Carol Devoss             | Saint Charles, IL |
| Rosanne Cataldo        | Elmwood Park, IL      | Douglas Devoss           | Chicago, IL       |
| Claudia Chalden        | Tinley Park, IL       | Linda Dewey              | Palos Hills, IL   |
| John Chamness          | Morton Grove, IL      | Beth Di Bartolomeo       | Joliet, IL        |
| Sara Chatfield         | Evanston, IL          | Nicholas Dibenedetto     | Tinley Park, IL   |
| Patricia Chelmecki     | Elburn, IL            | Rochelle Didiermd        | Chicago, IL       |
| Marsha Chomko          | Granite City, IL      | Carol Dimer              | Orland Park, IL   |
| Deb Christensen        | Manteno, IL           | Christine Dionisio-Bachi | Chicago, IL       |
| Mike Chyba             | Chicago, IL           | Va Dixon                 | Lombard, IL       |
| Richard Cichon         | Brookfield, IL        | Daphne Dixon             | Markham, IL       |
| Todd Cisna             | Effingham, IL         | Adrienne Doherty         | Lake Forest, IL   |
| Hillary Colby          | Aurora, IL            | Angelina Dokos           | Sycamore, IL      |
| Dori Cole              | Wheaton, IL           | Paul Dolinko             | Lincolnwood, IL   |
| Phyllis Cole           | Chicago, IL           | Kathryn Donaldson        | Chicago, IL       |
| Katie Conway           | La Grange Park, IL    | Mary Dosch               | Elburn, IL        |
| Anice Cook             | Villa Park, IL        | Mike Downs               | Rantoul, IL       |
| Jim Coonan             | Grayslake, IL         | Polly Doyle              | Durand, IL        |
| Connie Cooper          | Godfrey, IL           | Tracy Drake              | Chicago, IL       |
| Tom Cordaro            | Naperville, IL        | Connie Dunn              | Lebanon, IL       |
| Sandra Cosner          | Grayslake, IL         | Regan Ebert              | Chicago, IL       |
| John Coughlin          | Westchester, IL       | Brenda Eckberg           | Pekin, IL         |
| John Courts            | La Grange, IL         | Maureen Ellis            | Chicago, IL       |
| Nancy Cowger           | Wheeling, IL          | Philip Englert           | Chicago, IL       |
| Linda Cramer           | Antioch, IL           | Allen Ericksen           | McHenry, IL       |
| Jennifer Crockett      | Charleston, IL        | Christine Etapa          | Chicago, IL       |
| Dianne Croft           | Rockford, IL          | Danika Falkenhayn        | Princeton, IL     |
| Susan Crowley          | Villa Park, IL        | Nicholas Feda            | Cary, IL          |
| Jennifer Cunningham    | Bolingbrook, IL       | Craig Figtree            | chicago, IL       |
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| Magdalena Czeblakow    | Des Plaines, IL       | Cheryl Finnegan          | Cary, IL          |
| Ryan Dabrowski         | Orland Park, IL       | Lynne Firestone          | Evanston, IL      |
| Byron Dale             | Rockford, IL          | Marianne Flanagan        | Des Plaines, IL   |
| Elizabeth Darovic      | Monterey, IL          | Todd Fletcher            | Mundelein, IL     |
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| Maria De La Rosa-Young | Evanston, IL          | Val Folkerts             | Aurora, IL        |
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| Kellie Defosset        | Bethalto, IL          | Ingar Forsmark           | Barrington, IL    |
| Deb Defrank            | Grant Park, IL        | Haley Frailey            | Naperville, IL    |
| Angelo Delgiudice      | Norridge, IL          | Patricia Frank           | Swansea, IL       |

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| Victoria Fuller        | Chicago, IL           | Sofia Hedberg        | Algonquin, IL    |
| Richard Fung           | Arlington Heights, IL | Joseph Heininger     | Winfield, IL     |
| Tracie Gabrisco        | New Lenox, IL         | James Heller         | Chicago, IL      |
| Michaelene Galus       | Lemont, IL            | Cheryl Henley        | Evanston, IL     |
| Suzanne Gaspar         | Zion, IL              | Loretta Herrera      | Streator, IL     |
| Mike Gatton            | Breese, IL            | Carolyn Herring      | Pekin, IL        |
| Matt Geer              | Willow Springs, IL    | Dorene Herrmann      | South Elgin, IL  |
| Ira Gerard-Dibenedetto | South Elgin, IL       | Debra Hill           | Glenview, IL     |
| Joseph Getty           | Collinsville, IL      | Michelle Hodalj      | Chicago, IL      |
| Roberta Giblin         | Villa Park, IL        | Carolyn Holmes       | Chicago, IL      |
| Jennifer Gilbert       | Wheeling, IL          | K.E. Holmes          | Westmont, IL     |
| Debra Gleason          | Chicago, IL           | Barbara Holowczak    | Elmwood Park, IL |
| Jeff Glenn             | Chicago, IL           | Timothy Horsley      | DeKalb, IL       |
| Stacy Goldschen        | Gurnee, IL            | Melodie Huffman      | Danville, IL     |
| Robin Gols             | Chicago, IL           | Kimberly Hurschik    | Plainfield, IL   |
| Randy Gondek           | Lockport, IL          | Angela Jaffray       | Chicago, IL      |
| Maria Gonzalez         | Chicago, IL           | Dale Janssen         | Homer Glen, IL   |
| Tamara Goodman         | Chicago, IL           | Matthew Janusauskas  | Bourbonnais, IL  |
| Katie Gottfried        | Chicago, IL           | Diane Jensen         | Huntley, IL      |
| Marcus Gottlieb        | Deerfield, IL         | Maynard Jerome       | Channahon, IL    |
| Macaire Grambauer      | Chicago, IL           | Chuck Jesse          | Chicago, IL      |
| Rose Greco             | Wheaton, IL           | Arci Jimenez         | Chicago, IL      |
| Tina Gregory           | Glen Carbon, IL       | Debbie Johnson       | Champaign, IL    |
| Renee Grigorian        | Chicago, IL           | Lee Johnson          | Grant Park, IL   |
| Lori Grochowski        | Hanover Park, IL      | Carol Johnson        | North Aurora, IL |
| Mark Grotzke           | Palos Heights, IL     | Joanne Jones         | Bloomington, IL  |
| Linda Grube            | Streator, IL          | Tony Jones           | Carbondale, IL   |
| Lisa Gruber            | Crystal Lake, IL      | Rosemary Jordahl     | Elgin, IL        |
| Sheila Gut             | Lafox, IL             | Kathleen Jordan      | Joliet, IL       |
| Deb H.                 | Jacks, IL             | Julie Juarez-Heckman | Greenville, IL   |
| Michaeline Hade        | Chicago, IL           | Barry Jutovsky       | Northbrook, IL   |
| Larry Hagen            | Oak Park, IL          | Kristin Kalamatas    | Roselle, IL      |
| Valentina Halliday     | Skokie, IL            | Linda Kalaskie       | Springfield, IL  |
| Mary Ann Hamer         | Joliet, IL            | Scott Kanter         | Vernon Hills, IL |
| Ronda Hammonddziak     | St Charles, IL        | Diane Kastel         | Wheaton, IL      |
| A G Hansen             | Crestwood, IL         | Tammy Katz           | Deerfield, IL    |
| Oren Hargrove          | Glen Carbon, IL       | Lindsay Kaufman      | Chicago, IL      |
| Howard Harris          | Glencoe, IL           | Colin Kay            | Tinley Park, IL  |
| Ab Hartdegen           | Chicago, IL           | Joanne Keating       | Plainfield, IL   |
| Carla Hasegawa-Ahrendt | Schaumburg, IL        | Lisa Keim            | Oak Lawn, IL     |
| Heather Haug           | Arlington Heights, IL | Karen Kennedy        | Lombard, IL      |

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Janet Lipner Chicago, IL  
 Mindy Liska Port Byron, IL  
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 Jerry Luterman La Grange Park, IL  
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 John Marro Chicago, IL  
 Dortehea Martin Darien, IL  
 Patricia Martinak Riverwoods, IL  
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 Scott Mason Chicago, IL  
 Joyce Mast Champaign, IL  
 Carol Masuda Chicago, IL  
 Carolina Mayorga Chicago, IL  
 Gary Mazzotti Cantrall, IL  
 Elizabeth Mcaninch Chicago, IL  
 Sophia Mcaskill Aurora, IL  
 Ann Mccabe Chicago, IL  
 James Mccarthy Normal, IL  
 Paul Mcclung Harwood Heights, IL  
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 Michelle Mccoy Chicago, IL  
 Debra Mccullough Naperville, IL  
 Jim Mcdaniel Belvidere, IL  
 Rosalie Mcmenamin Chicago, IL  
 Marion Mcnamara Barrington, IL  
 Carlton Mcquay Chicago, IL  
 Rosalie Mcvay Batavia, IL  
 Gloria Meldman Evanston, IL  
 Carrie Middendorf Smithton, IL  
 George Milkowski Chicago, IL  
 Charles Miller Vernon Hills, IL  
 John Miller Carol Stream, IL  
 Lana Miyagawa Chicago, IL  
 Cindy Moczarney Elmwood Park, IL  
 Monica Molina Chicago, IL



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| Christy Monroe       | Naperville, IL        | Steve Podgorski    | Island Lake, IL   |
| Cheryl Moore         | Glenview, IL          | Daniel Polley      | Chicago, IL       |
| Kathy Moran          | Downers Grove, IL     | Jean Polous        | Burbank, IL       |
| Gina Moreno          | Woodstock, IL         | Rhenda Price       | Mount Vernon, IL  |
| Ellen Morgan         | La Grange, IL         | Bret Pritchett     | South Elgin, IL   |
| Dana Morley          | Antioch, IL           | Paula Propst       | Steward, IL       |
| Eileen Morrison      | Chicago, IL           | Donna Prost        | Westmont, IL      |
| Robert Morton        | Chicago, IL           | Patricia Pruitt    | Oak Park, IL      |
| Paul Moscato         | Crestwood, IL         | Mark Quinn         | Chicago, IL       |
| Lisa Moskal          | Joliet, IL            | Joe Racine         | Palatine, IL      |
| Sandra Moyer         | Urbana, IL            | Emmanuel Ramirez   | Chicago, IL       |
| Kailey Mullins       | Chicago, IL           | Jerome Ratliff     | Waukegan, IL      |
| Lisa Musgrave        | Palatine, IL          | Bob Rayburn        | Chicago, IL       |
| Joseph Naidnur       | Peoria, IL            | David Rechs        | Oak Park, IL      |
| Adrienne Naumann     | Skokie, IL            | Sandi Redman       | Skokie, IL        |
| Lori Nell            | Montgomery, IL        | Lenore Reeves      | Mokena, IL        |
| Sonia Ness           | Elk Grove Village, IL | Cindy Rehberg      | South Elgin, IL   |
| Bert Newsom          | Crest Hill, IL        | Jamie Reifman      | Chicago, IL       |
| Toni Noll            | Edwardsville, IL      | Gregory Reingruber | Brookfield, IL    |
| Susan Nowicki        | Woodridge, IL         | Gary Rejsek        | Bolingbrook, IL   |
| Elizabeth Nussbaumer | Albers, IL            | Denise Rice        | Warrenville, IL   |
| Linda Nyberg         | Oak Forest, IL        | Mary Rice          | Chicago, IL       |
| Jennifer O           | Chicago, IL           | Judy Richey        | Genoa, IL         |
| Kay Oaks             | Monmouth, IL          | Linda Roberts      | Burr Ridge, IL    |
| Kerry Obrist         | Glen Ellyn, IL        | Julie Robertson    | Mt Olive, IL      |
| William O'Hare       | Loves Park, IL        | Jennifer Romans    | Libertyville, IL  |
| Erin Orozco          | Chicago, IL           | Chari Rosales      | Naperville, IL    |
| Kim Osborne          | Decatur, IL           | Jennifer Rosater   | Wheeling, IL      |
| Joe Otoole           | Chicago, IL           | Pat Rose           | Skokie, IL        |
| Shawnee Overcast     | Champaign, IL         | Denise Rossi       | Chicago, IL       |
| Marcia And Parker    | Dekalb, IL            | Behn Rudo          | Chicago, IL       |
| Cindy Parrone        | Murphysboro, IL       | Melissa Ruppert    | Lemont, IL        |
| Valerie Parzygnat    | Des Plaines, IL       | Dan Rusk           | LaGrange, IL      |
| Barbara Peloquin     | Evanston, IL          | D Russell          | Collinsville, IL  |
| Karen Peterson       | Northbrook, IL        | Debra Ryan         | Oak Park, IL      |
| Sarah Peterson       | Lisle, IL             | Michael Rynes      | Naperville, IL    |
| Gloria Picchetti     | Chicago, IL           | Francis S          | Downers Grove, IL |
| Kathy Piehl          | Chicago, IL           | Ronald Sage        | Ottawa, IL        |
| Jennifer Pingle      | Arlington Heights, IL | Mary Sajdak        | Belvidere, IL     |
| Robin Pinsof         | Highland Park, IL     | Nancy Salefski     | Glenview, IL      |
| Katie Pinter         | Chicago, IL           | Jennifer Samartano | Naperville, IL    |
| Kevin Pitts          | Bolingbrook, IL       | Amelie Sanchez     | Chicago, IL       |

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| Maureen Sanderson   | Chicago, IL           | Erik Steinmeyer      | Villa Park, IL        |
| Ellen Sansone       | Northbrook, IL        | Susan Stewart        | Hanover Park, IL      |
| Jana Scalzitti      | Chicago, IL           | Katherine Stewart    | Northbrook, IL        |
| Kathleen Scherman   | Crystal Lake, IL      | Martha Stopa         | Darien, IL            |
| Christine Schmidt   | Schaumburg, IL        | Maryann Strain       | Evanston, IL          |
| Jane Schmit         | Chicago, IL           | Michael Strimbu      | Homewood, IL          |
| Frances Schoonhoven | FORRESTON, IL         | Laura Strong         | Crystal Lake, IL      |
| Sara Schroeder      | Elk Grove Village, IL | Florence Sullivan    | Chicago, IL           |
| Gann Schulte        | Oak Park, IL          | Brian Sullivan       | Arlington Heights, IL |
| Richard Schwarze    | Bolingbrook, IL       | Rick Sutton          | Bloomington, IL       |
| Pam Schwetz         | Chicago, IL           | J Swanson            | Kildeer, IL           |
| Martha Scott        | Vernon Hills, IL      | Jerry Swanson        | Rockford, IL          |
| Cecilia Seabrook    | Crest Hill, IL        | Alexandra Sweitzer   | Lemont, IL            |
| Alice Sedy          | Chicago, IL           | Liz Szabo            | Mchenry, IL           |
| Ga Shankel          | Chicago, IL           | Dennis Szczesniak    | Lemont, IL            |
| Ga Shankel          | Chicago, IL           | Ra Szumal            | Skokie, IL            |
| Wesley Sharp        | Ottawa, IL            | Talia Tamason        | Arlington Heights, IL |
| Haley Shaw          | Rockford, IL          | Elizabeth Taylor     | Lake Forest, IL       |
| Susan Shelby        | St. Charles, IL       | Lisa Telomen         | Geneva, IL            |
| Ben Sheppard        | Hanover, IL           | Justina Tennikait    | Bethalto, IL          |
| Bret Sher           | Vernon Hills, IL      | Bill Theisen         | Northbrook, IL        |
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| Jeffrey Shivar      | Berwyn, IL            | Frank K. Thorp       | Palos Park, IL        |
| Dawn Silver         | Chicago, IL           | Steve Thunberg       | Northbrook, IL        |
| Lisa Simonin        | Belleville, IL        | Georgette Tolen      | Westchester, IL       |
| Veena Singwi        | Evanston, IL          | Linda Townill        | Plainfield, IL        |
| Carol Skowronnek    | Streamwood, IL        | Aaron Turkewitz      | Chicago, IL           |
| Joan Slezak Fritz   | Park Ridge, IL        | Leslie Udaykee       | Crest Hill, IL        |
| Lloyd Smith         | Atkinson, IL          | Carol Vandeveire     | Batavia, IL           |
| Janell Smith        | New Douglas, IL       | Jeanne Varel         | Bartelso, IL          |
| Christine Smith     | Martinsville, IL      | Doris Verkamp        | Charleston, IL        |
| Karola Smith        | Dekalb, IL            | Linda Vilimek        | Palos Hills, IL       |
| Pamela Smith        | Chicago, IL           | Janice Vlcek         | Mount Prospect, IL    |
| Andrea Smith        | Normal, IL            | Judy Voegtle         | Schaumburg, IL        |
| Christine Squier    | Elmhurst, IL          | Brian Waak           | Aurora, IL            |
| Bonita Staas        | Orangeville, IL       | Lauren Wagner        | Chicago, IL           |
| Delores Stachura    | Herrin, IL            | Ann Waller           | Chicago, IL           |
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 Bloomington, IN  
 Centerville, IN  
 Avon, IN  
 Carmel, IN  
 INpolis, IN  
 INpolis, IN  
 South Bend, IN  
 Auburn, IN  
 South Bend, IN  
 La Porte, IN  
 INpolis, IN  
 Highland, IN  
 Springville, IN  
 Bloomington, IN  
 Hammond, IN  
 Franklin, IN

|                           |                    |                      |                   |
|---------------------------|--------------------|----------------------|-------------------|
| Jim Jachimiak             | Franklin, IN       | Kathleen Oconnell    | INpolis, IN       |
| Olivia Jacobs             | Fishers, IN        | Marcia Ouellette     | Lafayette, IN     |
| Sharon Janson             | Otisco, IN         | Marsha Overfield     | Mount Vernon, IN  |
| Emilie Johnson            | Bloomington, IN    | Larry Peavler        | INpolis, IN       |
| Robin Kawecki             | Hammond, IN        | Deborah Perkins      | INpolis, IN       |
| Karan Keller              | INpolis, IN        | Diane Poole          | Marion, IN        |
| John Kirchner             | Fort Wayne, IN     | Brooke Reel          | Uniondale, IN     |
| Jeff Kleinlein            | Bloomington, IN    | Grace Reynolds       | Fort Wayne, IN    |
| David Krueger             | Bloomington, IN    | Jean Robertson       | Newburgh, IN      |
| Mark Lamport              | Marion, IN         | Gregory Robinson     | Bicknell, IN      |
| Peter Lavris              | Noblesville, IN    | Cheryl Russell       | Pendleton, IN     |
| Diana Lee                 | Carmel, IN         | William Ryerson      | INpolis, IN       |
| William Lowe              | Crown Point, IN    | Lori Scheibe         | Dyer, IN          |
| Karen & Will Lozow Cleary | Bloomington, IN    | Christopher Scheller | INpolis, IN       |
| Kathleen Luth             | Saint John, IN     | Charles Schmalz      | Greenwood, IN     |
| Brian Lyczynski           | South Bend, IN     | Char Schumann        | Mishawaka, IN     |
| Gary Maddox               | Rockport, IN       | Judy Scott           | Noblesville, IN   |
| Frank Marshalek           | Bloomington, IN    | William Shearer      | Columbia City, IN |
| Michael Martin            | Kendallville, IN   | Lisa Shore           | Bloomington, IN   |
| Kathleen Massanari        | Goshen, IN         | Anne Shure           | Huntertown, IN    |
| Phil Massengill           | Flora, IN          | Angie Sieb           | Merrillville, IN  |
| Jan Matonovich            | Highland, IN       | Sally Small          | INpolis, IN       |
| Elizabeth Mccloskey       | Laporte, IN        | Sue Smith            | Angola, IN        |
| Kevin Mccollough          | Bourbon, IN        | Renee Smith          | Anderson, IN      |
| Darilynn Mccoy            | INpolis, IN        | Desiree Smith        | Anderson, IN      |
| Michael Mccurdy           | Fort Wayne, IN     | R.J. Snyder          | INpolis, IN       |
| Jennifer Mcdonner         | Evansville, IN     | Diane Soddy          | Leo, IN           |
| Katie Mckinley            | New Palestine, IN  | Diana Stafford       | Fortville, IN     |
| Alan Mcpherson            | Kewanna, IN        | Sandra Standeford    | INpolis, IN       |
| Jim Merkle                | Saint John, IN     | John Staunton        | South Bend, IN    |
| Scott Meyer               | Jeffersonville, IN | John Stevens         | INpolis, IN       |
| K E Miller                | Martinsville, IN   | Elizabeth Stock      | Mccordsville, IN  |
| Kristine Miller           | Valparaiso, IN     | Tom Sunlake          | Bloomington, IN   |
| Brooke Miller             | Greencastle, IN    | Tim Sunlake          | Muncie, IN        |
| Sharon Miller             | Goshen, IN         | Tammy Swoboda        | INpolis, IN       |
| Ashley Millette           | Griffith, IN       | Mary Tarallo         | Demotte, IN       |
| Carol Mills               | Granger, IN        | Diana Teddy          | Chesterton, IN    |
| Mandy Moon                | INpolis, IN        | Kathleen Terrulli    | Fort Wayne, IN    |
| Deborah Moore             | Jeffersonville, IN | Anthony Terrulli     | Fort Wayne, IN    |
| Julia Morales             | Hammond, IN        | Ercil Tullis         | Madison, IN       |
| Rachel Morr               | Chesterton, IN     | Laura Vanmeter       | Monticello, IN    |
| Scott Myerly              | Evansville, IN     | Renee Vesely         | Munster, IN       |
| Monica Myers              | Evansville, IN     | Judith Vitaliano     | Bloomington, IN   |

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| Carol Webb             | Lebanon, IN        |
| J. Scott Weimer        | Wabash, IN         |
| Sharon Werne           | Princeton, IN      |
| Deborah Wertz          | Lafayette, IN      |
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| Cody Whitesell         | Brazil, IN         |
| Jason Wuthrich         | Elkhart, IN        |
| Dorothy Wyatt          | Newburgh, IN       |
| Todd Zachritz          | Evansville, IN     |
| A. Zamudio             | St. John, IN       |
| Ann Zrobek             | Lakeville, IN      |
| Bernardo Alayza Mujica | Sioux city, IA, IA |
| Bernardo Alayza Mujica | Sioux City, IA     |
| Warren Allely          | Council Bluffs, IA |
| Brandt Amlie           | Sac City, IA       |
| Frank Belcastro        | Dubuque, IA        |
| Michelle Benes         | Fairfield, IA      |
| C.Jean Boomershine     | Des Moines, IA     |
| Cindy Borske           | MANCHESTER, IA     |
| Patrick Bosold         | Fairfield, IA      |
| Riley Brannian         | IA City, IA        |
| David Brown            | Des Moines, IA     |
| David H. Bullard       | Waterloo, IA       |
| Michael Cecil          | Burlington, IA     |
| Judith Cooper          | Des Moines, IA     |
| Pat Copenhaver         | IA Falls, IA       |
| Jesse Counterman       | Sioux City, IA     |
| Eloise Cranke          | Des Moines, IA     |
| Shawna Deblieck        | Davenport, IA      |
| Elaine Donovan         | Cedar Rapids, IA   |
| Adam Drewry            | Jefferson, IA      |
| Marla Feldhacker       | Des Moines, IA     |
| Charlene Ferguson      | Otho, IA           |
| Danise Flood           | Janesville, IA     |
| Nancy Frakes           | Des Moines, IA     |
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| Dave Frank             | AnkeNew York, IA   |
| Daniel Gan             | Des Moines, IA     |
| Jody Gibson            | Des Moines, IA     |

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| Sydney Griffiths         | Tipton, IA          |
| Heath Hancock            | Davenport, IA       |
| Lucy Hansen              | Tipton, IA          |
| Jeane Harrison           | Des Moines, IA      |
| Rachel Henning           | Indianola, IA       |
| Hurd Hess                | Fairfield, IA       |
| Alexander Honigsblum     | Dubuque, IA         |
| Gary Hopkins             | Clinton, IA         |
| John House               | Ames, IA            |
| Pam Jarvis               | IA City, IA         |
| Chris King               | Ames, IA            |
| Fred And Betty Krueger   | Fairfield, IA       |
| Victoria Laird           | Oskaloosa, IA       |
| Gabriele Lauscher-Dreess | Sebula, IA          |
| Dawn Lull                | Waukee, IA          |
| Maura Mccarthy           | Dubuque, IA         |
| Brandi Mccauley          | Des Moines, IA      |
| Dale Mcinroy             | Waterloo, IA        |
| Victor Miiller           | Des Moines, IA      |
| Kristine Miller          | Des Moines, IA      |
| Steve Monk               | Polk City, IA       |
| Lynn Murphy              | Davenport, IA       |
| Michael Murphy           | Fairfield, IA       |
| Elsie Naylor             | Des Moines, IA      |
| Sarah Nelson             | Sioux City, IA      |
| Robert Newman            | Des Moines, IA      |
| Brooks Obr               | Coralville, IA      |
| Cindy Oconnell           | Des Moines, IA      |
| Nancy Oconnell           | West Des Moines, IA |
| Rhea Osland              | Laurel, IA          |
| Susan Petra              | Ames, IA            |
| Jana Pettinger           | Dakota City, IA     |
| Sydney Pratt             | Irwin, IA           |
| Kim Ramert               | Okoboji, IA         |
| Rose Riker               | Sioux City, IA      |
| Janet Romine             | Des Moines, IA      |
| Valerie Sanderson        | Thompson, IA        |
| Olivia Schneider         | Robins, IA          |
| Linda Schrader           | Newton, IA          |
| Jenny See                | Grinnell, IA        |
| Rebecca Skalsky          | Runnells, IA        |
| Melody Smith             | IA City, IA         |

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| Mark Soenksen         | De Witt, IA       | Veda Joy             | Leavenworth, KS     |
| Kay Spidle            | Urbandale, IA     | Dolores K            | MISSION, KS         |
| Jim Stewart           | Cedar Falls, IA   | Stephen Keener       | Lenexa, KS          |
| Joy Strasser          | Davenport, IA     | Verena Ketola        | Independence, KS    |
| Ryan Strempeke-Durgin | Cedar Rapids, IA  | Dwight Krehbiel      | North Newton, KS    |
| John Strouss          | Fairfield, IA     | Ian Kruger           | Kingsley, KS        |
| Elizabeth Van Tuyl    | Clive, IA         | Karen Laforce        | Wichita, KS         |
| Jim Vorland           | Preston, IA       | Metta Lieb           | Newton, KS          |
| Vicki Wallace         | Wilton, IA        | Marilyn Logan        | Prairie Village, KS |
| Susan Watterson       | Fairfield, IA     | Suzanne M.           | Lawrence, KS        |
| Marya Zanders         | Centerville, IA   | Alexis Mariconda     | Wichita, KS         |
| Mary Zieser           | Dubuque, IA       | Elizabeth Maschka    | Concordia, KS       |
| Stacey Zuckerman      | Sioux City, IA    | Elizabeth Maschka    | Concordia, KS       |
| Kristin Arioli        | Shawnee, KS       | Irene Mauer          | Topeka, KS          |
| Jeremy Baptist        | Overland Park, KS | Patricia May         | Independence, KS    |
| Philip Bauer          | KS City, KS       | Daviann Mcclurg      | Larned, KS          |
| Lee Ann Bennett       | Lawrence, KS      | Barb Mcentee         | Overland Park, KS   |
| Steven Black          | Topeka, KS        | Kelly Mcphail        | Overbrook, KS       |
| Natalie Brod          | Overland Park, KS | Luke Metzger         | Wichita, KS         |
| Cynthia Brooks-Fetty  | Leoti, KS         | Brad Miller          | AnthoNew York, KS   |
| Jl Burns              | Osawatomie, KS    | Danny Morton         | Gardner, KS         |
| Beth Chao             | Lawrence, KS      | Timothy Post         | Roeland Park, KS    |
| Cyndi Clough          | Wichita, KS       | Jene Radcliffe-Birch | Topeka, KS          |
| Cammy Colton          | Overland Park, KS | Darcy Romondo        | Leavenworth, KS     |
| Margaret Cramer       | Gardner, KS       | Linda Ronconi        | Overland Park, KS   |
| Lindsey Crowell       | Overland Park, KS | Frances Rove         | Leawood, KS         |
| Betty David           | Leawood, KS       | Marylou Schmidt      | Topeka, KS          |
| Anna Dresner          | Pittsburg, KS     | Nancy Schmidt        | Abilene, KS         |
| Dede Dresser          | Lawrence, KS      | Elizabeth Schultz    | Lawrence, KS        |
| Frank Eppelheimer     | Olathe, KS        | Sally Seckman        | AP, KS              |
| Pat Findeiss          | Wichita, KS       | Alfred Staab         | Wichita, KS         |
| Mary Ann Fleming      | Manhattan, KS     | Mackenzie Struve     | Derby, KS           |
| Debra Gakeler         | Overland Park, KS | Marsha Thompson      | Ozawkie, KS         |
| Kathe Garbrick        | Manhattan, KS     | John Updegrove       | Wichita, KS         |
| Kathe Garbrick        | Manhattan, KS     | Mark Walton          | Wichita, KS         |
| Laura Glenn           | Overland Park, KS | Dk Weamer            | Merriam, KS         |
| Amanda Halling        | Lawrence, KS      | Jon Wood             | Overland Park, KS   |
| Elaine Hansen         | Colby, KS         | Norma Wuester        | Centralia, KS       |
| Kathleen Harley       | Wichita, KS       | Steve Wurtz          | Olathe, KS          |
| Roberta Harms         | Whitewater, KS    | Mary Yelich          | Leavenworth, KS     |
| Kay Hawley            | Wichita, KS       | Ronald Yeomans       | Overland Park, KS   |
| Andrew Henderson      | Overland Park, KS | Helen Yeomans        | Overland Park, KS   |
| K Jackson             | Olathe, KS        | Garrett Adams        | Louisville, KY      |

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| Anne Autry         | Villa Hills, KY   | Mary Love          | La Grange, KY     |
| Lara Beard         | Elizabethtown, KY | Tiffany Marsh      | Midway, KY        |
| Colin Bennett      | Louisville, KY    | Donna Mccoy        | Louisville, KY    |
| Rachelle Birdsell  | Louisville, KY    | Kathy Mcmath       | Ft Thomas, KY     |
| Sonja Birdsong     | Lexington, KY     | Kathy Mcmath       | Fort Thomas, KY   |
| Paul Blackburn     | Elizabethtown, KY | Martha Mcnulty     | St. Catharine, KY |
| Robin Blanton      | Lagrange, KY      | Mary Middendorf    | Nazareth, KY      |
| Christine Brazzell | Louisville, KY    | Connie Miller      | Berea, KY         |
| Tom Brown          | Lancaster, KY     | Katheryne Mitchell | Louisville, KY    |
| Gina Campbell      | Louisville, KY    | Christy Moneymaker | Ledbetter, KY     |
| Anita Capshaw      | Louisville, KY    | Dana Moot          | Frankfort, KY     |
| David Collins      | Louisville, KY    | Patricia Nazzaro   | Union, KY         |
| Cheryl Cook        | Lexington, KY     | C. Michael Nelson  | Midway, KY        |
| Paula Crook        | Louisville, KY    | Patricia W Oliver  | Louisville, KY    |
| Kathryn Cross      | Louisville, KY    | Kylie Pasteka      | Louisville, KY    |
| Kevin Diaz         | Louisville, KY    | Rozie Pendley      | Lexington, KY     |
| Stacey Dillingham  | Louisville, KY    | Edward Porter      | Bowling Green, KY |
| Lorraine Dumas     | Lexington, KY     | Susanna Pyatt      | Bardstown, KY     |
| Stephen Dutschke   | Louisville, KY    | Bobby Ray          | Lexington, KY     |
| Jennifer Edelen    | Louisville, KY    | Mark Reiff         | La Grange, KY     |
| Joyce Eviston      | Melbourne, KY     | Elaine Richardson  | Newport, KY       |
| Joanne Filkins     | Lexington, KY     | Samantha Ricketts  | Louisville, KY    |
| Sarah Garn         | Lexington, KY     | Camie Rodgers      | Radcliff, KY      |
| William Gaskill    | Florence, KY      | Karen Roland       | Greensburg, KY    |
| Jeff Gearding      | Lexington, KY     | Melissa S          | Edgewood, KY      |
| Patricia Gillespie | Cadiz, KY         | Eileen Schepers    | Martin, KY        |
| Ellen Glatman      | Bowling Green, KY | Jeanine Scott      | Paris, KY         |
| Colin Goggin       | Lexington, KY     | Gregory Smith      | Pikeville, KY     |
| Janet Leila Grous  | Williamstown, KY  | Pamela Speagle     | Louisville, KY    |
| Scott Grubb        | Middlesboro, KY   | Andrea Stone       | Louisville, KY    |
| Matthew Hall       | Lexington, KY     | Patrick Tanner     | Owensboro, KY     |
| Johnny Hall        | Dana, KY          | Jean Tate          | Louisville, KY    |
| Glenna Harris      | Louisville, KY    | Mary Teresa Terlau | Louisville, KY    |
| Barbara Hawkins    | Louisville, KY    | Cheryl Townsend    | Crestwood, KY     |
| Johanna Held       | Louisville, KY    | Barbara Varley     | Latonia, KY       |
| Shane Henson       | Grand Rivers, KY  | Catherine Vedder   | Frankfort, KY     |
| Stacey Hourigan    | lexington, KY     | Rebecca Vesper     | Villa Hills, KY   |
| Pat Kenney         | Park Hills, KY    | Bryan Waldrige     | Georgetown, KY    |
| Ant Kiser          | Lexington, KY     | David Walker       | Bowling Green, KY |
| Philip Krummrich   | Morehead, KY      | Gene Weber         | Alexandria, KY    |
| Diane Kuzma        | Lexington, KY     | Teena Weckesser    | Cold Spring, KY   |
| David Lopez        | Louisville, KY    | Rebecca White      | Maple Mount, KY   |

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| Marilyn Barber              | Alexandria, LA     | Loretta Reyes     | Slidell, LA          |
| Janine Beniger              | New Orleans, LA    | Sandy Rhein       | Metairie, LA         |
| James Bradley               | Prairieville, LA   | Roslynn Seibold   | Lafayette, LA        |
| Lisa Brehm                  | Jefferson, LA      | Jarrood Simmons   | Plaquemine, LA       |
| Jordan Burton               | New Orleans, LA    | Rob Soroe         | Kenner, LA           |
| Dianna Burton               | Denham Springs, LA | Kirsten Stone     | Baton Rouge, LA      |
| Sherry Byers                | Baton Rouge, LA    | Mari Vanantwerp   | new orleans, LA      |
| Hazel Champagne             | Metairie, LA       | Michael Vickers   | Jefferson, LA        |
| Derlin Clair                | Slidell, LA        | Celeste Watt      | Covington, LA        |
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| Barbara Fleming             | Lake Charles, LA   | Charles Anderson  | Wells, ME            |
| Randall Foreman             | Metairie, LA       | Penelope Andrews  | Hermon, ME           |
| Leah Foster                 | New Orleans, LA    | Warren Austerer   | Portland, ME         |
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| Susanne Haas                | Breaux Bridge, LA  | Regena Bradeen    | Waterville, ME       |
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| Laura Kamenitz              | New Orleans, LA    | Susan Carter      | Scarborough, ME      |
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| Kathryn Lemoine             | West Monroe, LA    | Elizabeth Castro  | Winterport, ME       |
| Jessica Liddell             | New Orleans, LA    | Karin Cohen       | Danforth, ME         |
| Patricia Mallory            | Deridder, LA       | Shonna Davis      | Houlton, ME          |
| Louise Martin               | Baton Rouge, LA    | Jacqui Deveneau   | Portland, ME         |
| H. Celeste Martin           | houma, LA          | Dawn Diblasi      | Waterville, ME       |
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| Quentin Morris              | Natchitoches, LA   | Richard Esten     | Deer Isle, ME        |
| Maureen Mueller             | Covington, LA      | Kirk Fernald      | East Millinocket, ME |
| Judie Noonan                | Lafayette, LA      | Colene Flaherty   | Steuben, ME          |
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 portland, ME  
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 Monmouth, ME  
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| James Beeler li     | Boonsboro, MD               | Kimberly Cresic       | Parkton, MD               |
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| Diane Boia          | Lutherville-Timonium,<br>MD | Mary Dean             | Baltimore, MD             |
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| Debra Care          | Boonsboro, MD, MD           | Eileen Fowler         | Hollywood, MD             |
| Wayne Carson        | Baltimore, MD               | Sonja Franz           | Baltimore, MD             |
| Suzanne Chapelle    | Baltimore, MD               | Colleen Fromm         | SpAR, MD                  |
| Maria Charlier      | Bowie, MD                   | Phyllis Gaiti         | Oxford, MD                |
| Maya Chauls         | Rockville, MD               | Julie Gallagher       | Reisterstown, MD          |
|                     |                             | John Gambriel         | Bowie, MD                 |

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| Kate Gelhard      | New Windsor, MD    | Jessica Kinnamon    | New Windsor, MD           |
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| George Goldman    | Baltimore, MD      | Barbara Kludy       | Odenton, MD               |
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| Kendra Holt       | Silver Spring, MD  | Cinthia Macie       | Baltimore, MD             |
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| H Holzer          | Eddyon, MD         | Christi Magruder    | Silver Spring, MD         |
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| Kiandra Johnson   | Baltimore, MD      | Linda Marshall      | Arnold, MD                |
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| Karen Antonio           | North Dighton, MA  | Wolfgang Burger          | Haverhill, MA        |
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| Martha Cottle        | Chilmark, MA        | Andrea Ferrara      | Mill River, MA       |
| William Coughlin     | brookline, MA       | Ann Fisher          | West Springfield, MA |
| Deborah Coviello     | Clinton, MA         | Robert Foley        | Attleboro, MA        |
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| Kelly Scherer     | Beverly, MA          | Heather Tausig     | Newton, MA          |
| Elise Schlaikjer  | Greenfield, MA       | Beverly Taylor     | Templeton, MA       |
| Sybil Schlesinger | Natick, MA           | Gary Thaler        | Revere, MA          |
| Michael Schmidt   | Reading, MA          | Gary Thaler        | Revere, MA          |
| Phyllis Schmidt   | Lowell, MA           | Eleanor Thomas     | Needham, MA         |

|                            |                      |                    |                        |
|----------------------------|----------------------|--------------------|------------------------|
| Louise Thompson            | Westfield, MA        | David Ashley       | Waterford, MI          |
| Don Thompson               | Cambridge, MA        | Claudette Ashley   | Waterford, MI          |
| Sylvia Tolley              | Taunton, MA          | Terry Austin       | South Branch, MI       |
| Laurie Toner               | Brighton, MA         | Carol Avigne       | Brownstown, MI         |
| Luz Maria Torres li Garcia | Leominster, MA       | Lauren B           | Howell, MI             |
| Eleanor Toth               | Bolton, MA           | Sue Balk           | Monroe, MI             |
| Peter Townsend             | Ashland, MA          | Barbara Bambach    | Saint Johns, MI        |
| Jeff Trzcinski             | Brewster, MA         | Amanda Barker      | Baroda, MI             |
| Karen Vayda                | Southampton, MA      | Anna Bayles        | Ferndale, MI           |
| Scott Vayo                 | Boston, MA           | Beverly Beatham    | Berlin, MI             |
| Janet Vecchione            | Mashpee, MA          | Lorne Beatty       | Brighton, MI           |
| Judy Walker                | North Andover, MA    | Christine Becker   | Dryden, MI             |
| Lawrence Walker            | Kingston, MA         | Elin Becker        | Huntington Woods, MI   |
| James Wall                 | Marstons Mills, MA   | Margaret R Bennett | Ann Arbor, MI          |
| Molly Walsh                | Mansfield, MA        | Hilda Bertan       | Grass Lake, MI         |
| Richard Warren             | Halifax, MA          | Veronica Blake     | Port Huron, MI         |
| Elizabeth Way              | Upton, MA            | Dan Blakey         | East Lansing, MI       |
| Marilyn Weber              | Hanson, MA           | Sharon Bodek       | Rochester, MI          |
| Robert Webster             | Oxford, MA           | Sydney Bolt        | Zeeland, MI            |
| Bobbie Webster             | Pittsfield, MA       | Sara Bonnette      | Bay City, MI           |
| Joanne Wedge               | West Yarmouth, MA    | Gavin Bornholtz    | Grand Blanc, MI        |
| Sherry Weiland             | Hudson, MA           | Emily Bovee        | Rochester Hills, MI    |
| Fanny Whitman              | Westport Point, MA   | Kevin Bradley      | Warren, MI             |
| Lloyd Williams             | Barre, MA            | Kay Brainerd       | Belleville, MI         |
| Linda Willis               | Dorchester, MA       | Denise Brennan     | Auburn Hills, MI       |
| Annie Wolf                 | Salem, MA            | Ro Bril            | Nashville, MI          |
| Patricia Wolongevicz       | Hanover, MA          | Clayton Brillhart  | Grand Rapids, MI       |
| Thomas Wolslegel           | South Deerfield, MA  | Lynne Brimecombe   | Ann Arbor, MI          |
| Bruce Wood                 | Cambridge, MA        | Dianne Brooker     | Ypsilanti, MI          |
| Kevin Worker               | Amesbury, MA         | Jill Brown         | Midland, MI            |
| Janet Wornham              | Worcester, MA        | Jennifer Buhinicek | Chelsea, MI            |
| Susan Wyoral               | Duxbury, MA          | Karen Burgor       | Brownstown, MI         |
| Mona Young                 | Great Barrington, MA | Sophia Burroughs   | Berkley, MI            |
| Mark Zall                  | Lynn, MA             | Mike Butkiewicz    | Sterling Heights, MI   |
| Betty Adams                | Onokama, MI          | Roberta Byrd       | Osseo, MI              |
| Sarah Adrian               | Lathrup Village, MI  | Joseph Byrne       | Birmingham, MI         |
| Lynn Allen                 | Ypsilanti, MI        | Amy Campbell       | Saint Clair Shores, MI |
| Janet Allison              | Brighton, MI         | Peggy Carlson      | Pinckney, MI           |
| Pamela Alvesteffer         | Fremont, MI          | Steven Carpenter   | Woodhaven, MI          |
| Jennifer Anderegg          | Ypsilanti, MI        | Nate Carpenter     | Grand Rapids, MI       |
| Diane Anderson             | Birmingham, MI       | Michael Casler     | Lansing, MI            |
| Sarah Anthony              | Livonia, MI          | Robert Chapman     | dexter, MI             |
| Doris Applebaum            | Oak Park, MI         | Robbi Chisholm     | Wyandotte, MI          |

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|-----------------------------|---------------------|---------------------|------------------------|
| John Christopher            | Paw Paw, MI         | Winnie Gallagher    | Novi, MI               |
| Derek Cleary                | Royal Oak, MI       | Donald Garlit       | Canton, MI             |
| Cindy Cody                  | Belleville, MI      | Lauren Garner       | Detroit, MI            |
| Ken Collinson               | Dearborn, MI        | Kalren Gilmore      | Detroit, MI            |
| Elaine Connors              | Madison Heights, MI | Janet Ginepro       | Monroe, MI             |
| Lora Cooper                 | Comstock Park, MI   | Barbara Glassheim   | Southfield, MI         |
| Rachel Coppola              | Bay City, MI        | Debra Glen          | Pinckney, MI           |
| Daniel Corbin               | Westland, MI        | Karyn Goff          | Plymouth, MI           |
| Meagan Costea               | Detroit, MI         | Joe Good            | Oxford, MI             |
| Heather Cross               | Hamtramck, MI       | Pamela Goodman      | Muskegon, MI           |
| Anette Cyr                  | Petoskey, MI        | Deborah Gostomske   | Livonia, MI            |
| Keith D'Â€Alessandro        | Canton, MI          | Lisa Graham         | Madison Heights, MI    |
| Nicole Dambrun              | White Lake, MI      | Holly Graves        | Dearborn, MI           |
| Shannon Daniels             | Skandia, MI         | Kristin Green       | Sault Sainte Marie, MI |
| Donna Delisi                | Lenox, MI           | Richard Grzeskowiak | Dexter, MI             |
| Shannon Deming              | Saginaw, MI         | Josh Guy            | Grand Ledge, MI        |
| Jody Detzler                | Clinton Twp, MI     | Emily Haggerty      | East Lansing, MI       |
| Daniel And Judith Dickinson | Bath, MI            | David Hall          | Davisburg, MI          |
| Christine Dingeman          | Lapeer, MI          | Keith Hamilton      | Ludington, MI          |
| Noelle Dlugosielski         | Royal Oak, MI       | Emeline Hanna       | Alpena, MI             |
| Francine Dolins             | Ann Arbor, MI       | Jazmine Harvey      | Kincheloe, MI          |
| Linda Dres                  | South Lyon, MI      | Hayley Hawthorne    | Kalamazoo, MI          |
| Ellen Dreyer                | Farmington, MI      | Jessica Hayes       | Dearborn Heights, MI   |
| Steve Dudzinski             | BERKLEY, MI         | Jim Head            | Oak Park, MI           |
| Diana Duffy                 | East Tawas, MI      | Patricia Heath      | Mancelona, MI          |
| Corinna Duncan              | Lansing, MI         | Maxxcell Higdon     | Lake Orion, MI         |
| Gerry Easton                | Shelby Township, MI | Michael Hinshaw     | Inkster, MI            |
| Jan Ebersole                | Okemos, MI          | Eric Hotchkiss      | Ypsilanti, MI          |
| William Eisen               | Manton, MI          | Ronald Howard       | Delton, MI             |
| Jamie Ewen                  | Ann Arbor, MI       | Maureen Hughes      | Westland, MI           |
| Christina Faulk             | Washington, MI      | Kathleen Humiston   | Kalamazoo, MI          |
| Michael Fine                | Three Rivers, MI    | Karen Husocki       | Flint, MI              |
| Kelly Fisher                | Goodrich, MI        | Paul Iddings        | Petoskey, MI           |
| Lynn Fisher                 | Bellaire, MI        | Ilia Iverson        | Royal Oak, MI          |
| Denise Fisher               | Kalamazoo, MI       | Sasha Jackson       | Detroit, MI            |
| Carol Fletcher              | Ann Arbor, MI       | David Jackson       | Battle Creek, MI       |
| M. Fogerson                 | Van Buren Twp, MI   | Lauren Jacobs       | Traverse City, MI      |
| Martha Folts                | Chelsea, MI         | Tom James           | Grand Haven, MI        |
| John Fonz                   | Meriden, MI         | Alexandra Jett      | Royal Oak, MI          |
| Brigitte Forster            | Mount Clemens, MI   | Lisa Johnson        | Hazel Park, MI         |
| Barbata Fox                 | Ypsilanti, MI       | Va Jones            | Kalamazoo, MI          |
| Dorothy Frisch              | Grand Rapids, MI    | Carla Judge         | Adrian, MI             |
| Ester Fuchs                 | Lapeer, MI          | Joe Kaleel          | Sebewaing, MI          |

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|------------------------|---------------------|--------------------------|---------------------------------|
| Barbara Kantola        | Niles, MI           | John Martich             | Harrison Township, MI           |
| Terry Karjalainen      | Fenton, MI          | Kathy Mason              | Sebewaing, MI                   |
| Barbara Kashishian     | Redford, MI         | Kathy Mason              | Sebewaing, MI                   |
| David Kasteline        | Grand Rapids, MI    | Karen Mason              | Southfield, MI                  |
| Ilene Kazak            | Brighton, MI        | Scott Matash             | Macomb, MI                      |
| Steve Keim             | Columbiaville, MI   | Jerry Mawhorter          | Royal Oak, MI                   |
| Sheila Kellogg         | Novi, MI            | Denise And James Mazurek | Redford, MI                     |
| Paul Kerman            | Warren, MI          | Mark Mccabe              | Traverse City, MI               |
| Renee Kermeen          | Middleville, MI     | Tony Mcguckin            | village of Bingham farms,<br>MI |
| Malena Kind            | Kentwood, MI        | Christine Mclaughlin     | Flint, MI                       |
| Myron Klos             | Livonia, MI         | Sheri Mcllland           | Gregory, MI                     |
| Haven Knight           | Rochester, MI       | Karen Mcneill            | Mount Clemens, MI               |
| Mary Korde             | West Bloomfield, MI | Stephanie Meacham        | Marysville, MI                  |
| Terry Koslek           | Marne, MI           | Caren Mehay              | Commerce Township, MI           |
| Cyndee Kott            | Grand Rapids, MI    | John Messer              | Brutus, MI                      |
| Lara Kramer            | Ann Arbor, MI       | Veronica Miazga          | Warren, MI                      |
| Diane Krause           | Canton, MI          | Arthur Miller            | Dearborn, MI                    |
| J Kronick              | Lake Orion, MI      | Maria Miller             | Grand Rapids, MI                |
| Kelly Kroske           | Grass Lake, MI      | Joanne Miller            | Kalamazoo, MI                   |
| Jeri Krueger           | Detroit, MI         | Sherry And Tom Miller    | Benton Harbor, MI               |
| Gerard Kuehn Kuehn     | Walled Lake, MI     | Charissa Miller          | Allen Park, MI                  |
| Richard Labudie        | Spring Lake, MI     | Kurt Miron               | Marquette, MI                   |
| Kenneth Large          | Royal, MI           | Jess Mohler              | Nashville, MI                   |
| Timothy Lauxmann       | Leslie, MI          | Aggie Monfette           | Royal Oak, MI                   |
| Danielle Lavaque-Manty | Ann Arbor, MI       | Becky Monger             | Ypsilanti, MI                   |
| Sheila Lavoie          | Lincoln Park, MI    | Margaret Moody-Ulmer     | Brighton, MI                    |
| Karla Leblanc          | Brownstown Twp, MI  | Debra Moore              | Clio, MI                        |
| M Leszczynski          | Lapeer, MI          | Anita Morgan             | Grand Rapids, MI                |
| Susan Lewis            | Ann Arbor, MI       | Lynell Morr              | Waterford, MI                   |
| Jole Lheureux          | Macomb, MI          | Nicholas Mouzourakis     | LIVONIA, MI                     |
| Grace Lin              | Ann Arbor, MI       | Kristine Moy             | Grosse Pointe, MI               |
| Jennifer Liptow        | Farmington, MI      | Julie Moylan             | Troy, MI                        |
| Catherine Lobbestael   | Adrian, MI          | Tami Mullin              | Saint Joseph, MI                |
| Linda Lobik            | Stevensville, MI    | Dorothy Neff             | Coleman, MI                     |
| Joanne Lowery          | Portage, MI         | Linda Neumann            | Toivola, MI                     |
| Rob Lozon              | Flint, MI           | Cara Nims                | Westland, MI                    |
| Linda Luke             | Van Buren Twp, MI   | Julia Oconnor            | Williamston, MI                 |
| Laurie Macpherson      | Manistee, MI        | Mary Oneill              | Presque Isle, MI                |
| Samantha Mantua        | Beverly Hills, MI   | George Opdyke            | Kalamazoo, MI                   |
| Paul Mareel            | Macomb, MI          | Julie Ozias              | Waterford, MI                   |
| Barb Margolis          | 48864, MI           | Sgt. Alexander Palloc    | Detroit, MI                     |
| Roberta Marine         | Lansing, MI         |                          |                                 |
| Robert Marinier        | Ann Arbor, MI       |                          |                                 |

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|-------------------|-------------------------|-----------------------------|-------------------------|
| Tris Palmgren     | Grosse Pointe Woods, MI | Marion Shepherd             | Commerce, MI            |
| Emily Pantoja     | Grand Rapids, MI        | John Sherman-Jones          | Limestone, MI           |
| Carole Pappas     | Grand Blanc, MI         | Timothy Shields             | Dearborn Heights, MI    |
| Pamela Parker     | Romulus, MI             | Jan Shillito                | Portage, MI             |
| Sue Parsell       | Ann Arbor, MI           | Julia Skelton               | Van Buren Twp, MI       |
| Robert Pause      | Van Buren Twp, MI       | Julie Skelton               | Van Buren Twp, MI       |
| Brittany Payne    | Royal Oak, MI           | Richard Smith               | Melvindale, MI          |
| Susan Peters      | Dewitt, MI              | Daniel Smith                | South Lyon, MI          |
| John Peters       | Saugatuck, MI           | Kathleen Smith              | Westland, MI            |
| Janet Peterson    | Troy, MI                | Barbara Sneath              | Portage, MI             |
| Erik Peterson     | Troy, MI                | Jan Sockness                | Ann Arbor, MI           |
| Georgie Peterson  | Farmington Hills, MI    | Daniel Solano               | Detroit, MI             |
| Jenny Pierucki    | Burr Oak, MI            | Todd Sonquist               | Bloomfield Hills, MI    |
| Tim Pokela        | Marquette, MI           | Carol Souva                 | Sanford, MI             |
| Jared Pomeroy     | Rockford, MI            | Julie Spencer               | Ann Arbor, MI           |
| Nm Porter         | Ypsilanti, MI           | Phyllis Stanbury            | Grand Blanc, MI         |
| Heath Post        | Lansing, MI             | Marilyn Sterling            | Livonia, MI             |
| Carol Profit      | Troy, MI                | Brenda Stone                | Traverse City, MI       |
| Linda Prostko     | Caledonia, MI           | James Stover                | Belmont, MI             |
| Beth Prudden      | Grosse Pointe Woods, MI | Michele Stpeter             | Flat Rock, MI           |
| Briana Purcell    | Dearborn Heights, MI    | Bernadette Straney          | Grand ledge, MI         |
| Noelle Ralin      | Sterling Heights, MI    | Kim Streich                 | Westland, MI            |
| Michael Ray       | Southgate, MI           | Anita Stromberg             | Farmington Hills, MI    |
| Jourdan Reis      | Dimondale, MI           | Joseph Suarez               | Canton, MI              |
| Jennifer Rier     | Pinckney, MI            | Mark Swanson                | Ann Arbor, MI           |
| Heather Risselada | Dewitt, MI              | Steven Sy                   | East Lansing, MI        |
| William Roberts   | Gaines, MI              | Linda Syroid                | Allenton, MI            |
| Daniel Rogalny    | Bay City, MI            | Linda Szurley               | Norton Shores, MI       |
| Belinda Rogers    | Shelby Twp, MI          | Jonia Tamburi               | Highland, MI            |
| Tammy Rohatynski  | Brighton, MI            | Guy Taylor                  | Livonia, MI             |
| Maria Ross        | Beverly Hills, MI       | Charles Tazzia              | Grosse Pointe Farms, MI |
| Joellen Rudolph   | Petoskey, MI            | Jacquelinee Tessman         | Benton Harbor, MI       |
| Amanda Salvner    | Ann Arbor, MI           | Margaret Thomas             | New Hudson, MI          |
| Allen Salyer      | Troy, MI                | N Thompson                  | Sunfield, MI            |
| Krista Saunders   | Burtchville, MI         | Grendel Tirado              | Adrian, MI              |
| Tracy Schalk      | Grand Rapids, MI        | Janice Tomlian              | Lansing, MI             |
| Thomas Scheller   | Hillsdale, MI           | Karen Tomlonson             | Kalamazoo, MI           |
| Carol Sears       | Grand Rapids, MI        | Barbara Toshalis            | Kalamazoo, MI           |
| Shannen Serylo    | Livonia, MI             | Barbara Trombly             | Grosse Pointe, MI       |
| Debbie Sever      | Portland, MI            | Peter Trull                 | Ypsilanti, MI           |
| Maureen Sheahan   | Southfield, MI          | Kathleen Tucker             | Mt Pleasant, MI         |
|                   |                         | Christa Vander Horst        | Grand Rapids, MI        |
|                   |                         | Carolyn Vandervlught-Turner | LAINGSBURG, MI          |

|                       |                            |                     |                   |
|-----------------------|----------------------------|---------------------|-------------------|
| Tara Verbridge        | Windsor, MI                | Rene Balder         | Dayton, MN        |
| Deanna Vetrone        | Troy, MI                   | Theresa Baroni      | Saint Paul, MN    |
| Tiffany Vojnovski     | Rochester, MI              | Ellen Barr          | Andover, MN       |
| Suzan Vrba            | Grand Rapids, MI           | Thomas Barry        | Newport, MN       |
| Bailey Wagner         | Kalamazoo, MI              | Darnell Barsness    | Hastings, MN      |
| Dana Wakiji           | Saint Clair Shores, MI     | Carol Beck          | Menahga, MN       |
| Gail Walter           | Kalamazoo, MI              | Frances Bell        | Saint Paul, MN    |
| Hannah Walters        | Grand Rapids, MI           | Eric Benson         | Minneapolis, MN   |
| Elizabeth Warddonahue | Midland, MI                | Leela Bergerud      | Minneapolis, MN   |
| Mark Warren           | Madison Heights, MI        | Sara Bible          | Minneapolis, MN   |
| Chris Wasilewski      | Tecumseh, MI               | Michelle Black      | Rochester, MN     |
| Tani Watkins          | Traverse City, MI          | Melissae Bletsian   | Minneapolis, MN   |
| Nancy Weatherwax      | Albion, MI                 | Larry Bogolub       | Saint Paul, MN    |
| Jeanine Weber         | Grand Rapids, MI           | Katherine Bohn      | Minneapolis, MN   |
| Susan Welsford        | Norton Shores, MI          | Mary Bolla          | Minneapolis, MN   |
| Nora Wesley           | Oxford, MI                 | Donna Bolte         | Minneapolis, MN   |
| Lisa Whipple          | Hartland, MI               | Terry Bragg         | VA, MN            |
| Claudia Wier          | Ann Arbor, MI              | Gary Burt           | Marble, MN        |
| David Williams        | Highland Park, MI          | Kristin Campbell    | Waconia, MN       |
| Yvonne Willoughby     | Pontiac, MI                | Richard Cardinal    | Sauk Centre, MN   |
| Kathy Wilson          | Kingsford, MI              | Thomas Carey        | Maplewood, MN     |
| Babs Wilson           | Iron Mountain, MI          | Mark Carlson        | St Louis Park, MN |
| Marjorie Wing         | Lansing, MI                | Holli Carlson       | Alexandria, MN    |
| Lee Winslow           | Mason, MI                  | Melissa Cathcart    | Minneapolis, MN   |
| Patricia Winters      | Canton, MI                 | Donna Cerkvenik     | Saint Paul, MN    |
| Jacqueline Wolfe      | Calumet, MI                | Thomas Childs       | Babbitt, MN       |
| Dixie Wong            | Berrien Springs, MI, MI    | David Chollar       | Minneapolis, MN   |
| Roth Woods            | Ann Arbor, MI              | Jim Clapp           | Detroit Lakes, MN |
| Michael Wright        | Rochester Hills, MI        | Carol Cochran       | Minneapolis, MN   |
| Katherine Wright      | Milford, MI                | Mary Ann Cogelow    | Minneapolis, MN   |
| Julie Wyrembelski     | Ortonville, MI             | Anna Cook           | Minneapolis, MN   |
| William Yaroch        | Kalamazoo, MI              | Gretchen Corkrean   | Woodbury, MN      |
| Andrea Zajac          | Williamston, MI            | Mary Creighton      | VA, MN            |
| Olga Zakharova        | Manistee, MI               | Deborah Crocker     | Spring Park, MN   |
| Theresa Zatirka       | Grosse Pointe Woods,<br>MI | Kate Crowley        | Willow River, MN  |
| Kaitlynn Zemer        | Owosso, MI                 | Dennis Cuchna       | Alexandria, MN    |
| Carla Albers          | Excelsior, MN              | Elizabeth Dahl      | Cook, MN          |
| Andrew Anderson       | Hutchinson, MN             | Michelle Daniels    | Minneapolis, MN   |
| Scott Anderson        | Owatonna, MN               | Rhonda Danielson    | Princeton, MN     |
| Mark Anderson         | Eagan, MN                  | Jerry Dawson        | Rochester, MN     |
| Roger Aus             | Richfield, MN              | Mary De Sousa       | Fergus Falls, MN  |
| Ryan Baka             | Minneapolis, MN            | Theresa Del Rosario | Saint Paul, MN    |
|                       |                            | Paul Densmore       | Richfield, MN     |

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|-----------------------|----------------------|------------------------|---------------------|
| Kay Drache            | Saint Louis Park, MN | Jon Hayenga            | Stewartville, MN    |
| Daniel Dummer         | South Saint Paul, MN | Jon Hayman             | Afton, MN           |
| Va Dwyer              | Saint Paul, MN       | Jo Anna Heberger       | Saint Paul, MN      |
| Mary Eide             | Minneapolis, MN      | Jessica Heilman        | Northfield, MN      |
| Kristie Eklund        | Minneapolis, MN      | Ruth Heller            | Olivia, MN          |
| Michael Erickson      | Minneapolis, MN      | Bonita Herman-Suleiman | Minneapolis, MN     |
| Tony Espinosa         | Rochester, MN        | Nicole Hoekstra        | Minneapolis, MN     |
| Holly Evans           | Hopkins, MN          | Mary Hoff              | Minnetonka, MN      |
| Dr. Fallon            | MINNEAPOLIS, MN      | Sandra Holmgren        | North Branch, MN    |
| Stu Farnsworth        | Eagan, MN            | Janice Huss            | Mpls, MN            |
| Charles Favorite      | Isle, MN             | Barbara Ihme           | Minnetonka, MN      |
| Charles Favorite      | Isle, MN             | Susan Imker            | Isanti, MN          |
| Jeffrey Feldmeier     | Minnetonka, MN       | Elizabeth Ishmael      | Eden Prairie, MN    |
| Richard Fish          | Minneapolis, MN      | Margaret Iuro          | Hokah, MN           |
| Sonja Fisher          | Oak Grove, MN        | Elizabeth Javinsky     | Minneapolis, MN     |
| John Fitzgerald       | KilkenNew York, MN   | Susan Jobe             | Afton, MN           |
| John And Jean Fleming | Lakeville, MN        | Ruth Katz              | Babbitt, MN         |
| Kyle Flohrs           | Fairmont, MN         | Patricia Keefe         | Rochester, MN       |
| John Gaffner Sr       | Minneapolis, MN      | India Kelley           | Cass Lake, MN       |
| Deneen Gannon         | Saint Paul, MN       | James Kinder           | Minneapolis, MN     |
| Tammy Garman          | Waseca, MN           | Mary Knuteson          | Stillwater, MN      |
| Katren Garrett        | Mahtowa, MN          | Diann Koenig           | Mcintosh, MN        |
| Kristal Gerald        | Farmington, MN       | Lauren Kofsky          | Minnetonka, MN      |
| Jody Goldstein        | Rochester, MN        | Linda Kollman          | Richfield, MN       |
| Lisa Goodlander       | Saint Paul, MN       | Tom Koors              | Minneapolis, MN     |
| Tamara Goracke        | Moorhead, MN         | Rm Krebs               | Mankato, MN         |
| Carol Green           | Minneapolis, MN      | Jennifer Krinke        | Saint Paul, MN      |
| Paul Gregory          | Minneapolis, MN      | Robin Kulkarni         | Victoria, MN        |
| Owen Griffin          | Saint Paul, MN       | Lilliana Lafontaine    | Saint Paul, MN      |
| Cara Gubrud           | Milaca, MN           | Kay Lambert            | Glenwood, MN        |
| Steven Guillotel      | Eden Prairie, MN     | Tim Lamotte            | White bear lake, MN |
| Marcia Gustafson      | Mankato, MN          | Lynn C. Lang           | Saint Cloud, MN     |
| Lori Haaland          | Blaine, MN           | Pat Lang               | Minneapolis, MN     |
| Rev. Maurice Hagen    | Rochester, MN        | Linda Langin           | Minnetonka, MN      |
| Sue Halligan          | Woodbury, MN         | Eileen Levin           | Hopkins, MN         |
| Janice Hallman        | Saint Paul, MN       | Eileen Levin           | Hopkins, MN         |
| Verlaine Halvorsen    | Minnetonka, MN       | Lynn Levine            | St Louis Park, MN   |
| Cynthia Hanken        | Watertown, MN        | Lee Levitan            | Eagan, MN           |
| Angela Hansen         | Minneapolis, MN      | Stephanie Limpert      | Saint Paul, MN      |
| Kathy Harvey          | Saint Paul, MN       | Pamela Lohse           | MINNEAPOLIS, MN     |
| Nancy Hauer           | Saint Paul, MN       | Jan Marie Lundgren     | Saint Paul, MN      |
| Douglas Hauge         | Maple Grove, MN      | Judith Mackenzie       | Minneapolis, MN     |
| Samantha Haugen       | Minneapolis, MN      | Soozi Macleod          | Hopkins, MN         |

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|--------------------------------|-------------------------|-------------------|-----------------------|
| Robert Mahutga                 | Eagle Bend, MN          | Jenna Pigeon      | Apple Valley, MN      |
| Jim Maloney                    | Shoreview, MN           | Stephen Poling    | Saint Paul, MN        |
| Laurence Margolis              | Minnetonka, MN          | Lisa Pollei       | Oronoco, MN           |
| Ann Marie                      | St Paul, MN             | Betsey Porter     | Bloomington, MN       |
| Jim Marsden                    | Maplewood, MN           | Jim Pounds        | St. AnthoNew York, MN |
| Harriet McCleary               | Minneapolis, MN         | Barb Powell       | Rochester, MN         |
| Catharine Mceachern            | Saint Paul, MN          | Shannon Prozinski | Little Falls, MN      |
| Catharine Mceachern            | Saint Paul, MN          | Philip Rampi      | Saint Paul, MN        |
| Cynthia McGough                | Nevis, MN               | Kay Randall       | Moorhead, MN          |
| John Mckenzie                  | Saint Paul, MN          | Martin Raths      | Stillwater, MN        |
| Tim Meinke                     | Minneapolis, MN         | Lavonne Rathsack  | Brooklyn Park, MN     |
| Diane Meyer                    | White Bear Lake, MN     | Dorothy H Ray     | Rochester, MN         |
| Scott Mills                    | Ely, MN                 | Laura Regan       | Duluth, MN            |
| Sharon Mlaker                  | Hibbing, MN             | Susan Reichel     | Plymouth, MN          |
| Kathleet Moraski               | Woodbury, MN            | Jennifer Rials    | Savage, MN            |
| Andrew Moritz                  | Minneapolis, MN         | Matt Ringquist    | Redwood Falls, MN     |
| Sierra Morris                  | Saint Paul, MN          | Corinne Rockstad  | St. Paul, MN          |
| Kathryn Mosher                 | Saint Paul, MN          | Peggy Roeske      | White Bear Lake, MN   |
| Paul Moss                      | White Bear Lake, MN     | Nancy Root        | Grand Rapids, MN      |
| Christine Murdock              | Inver Grove Heights, MN | Arthur Rosenberg  | Minneapolis, MN       |
| Amber Murphy                   | Farmington, MN          | Carl Rosendale    | North Mankato, MN     |
| Eleanor Muzzy                  | Rochester, MN           | Jean Ross         | Minneapolis, MN       |
| April Narcisse                 | Bloomington, MN         | Erik Roth         | Minneapolis, MN       |
| Heyward Nash                   | Minneapolis, MN         | Beverly Sabre     | Burnsville, MN        |
| Janet Neihart                  | Cottage Grove, MN       | Geoffrey Saign    | Saint Paul, MN        |
| Franklin Nelson                | Saint Paul, MN          | Ellen Sanford     | Duluth, MN            |
| Linda Nelson                   | MOORHEAD, MN            | Matthew Saxe      | Crystal, MN           |
| Jane Norling                   | Mound, MN               | Sheila Schally    | Stillwater, MN        |
| Pamela Novotny                 | Duluth, MN              | Jennifer Schally  | Stillwater, MN        |
| Joseph Nowak                   | Cambridge, MN           | Mary Schannach    | Hastings, MN          |
| Linda Olson                    | Duluth, MN              | Matthew Schaut    | Minneapolis, MN       |
| Colleen & Joe - Oceana O'Meara | Minneapolis, MN         | Diane Schiks      | Minneapolis, MN       |
| Barbara Palmer                 | Minneapolis, MN         | Judy Schlichting  | Minneapolis, MN       |
| Kevin Palmer                   | Elk River, MN           | Joel Schmidt      | Pennock, MN           |
| Carolyn Patterson              | Saint Paul, MN          | Mark Schmidt      | Crookston, MN         |
| Lynda Pauling                  | Stillwater, MN          | Gladys Schmitz    | Mankato, MN           |
| Elizabeth Paulson              | Plymouth, MN            | Mark Schroeder    | Spring Grove, MN      |
| Ursula Pelka                   | Edina, MN               | Mary Schultz      | Eagan, MN             |
| Rebecca Perry                  | Minneapolis, MN         | Donna Seabloom    | Elk River, MN         |
| William Peterson               | GRAND MARAIS, MN        | Corinne Segal     | Saint Paul, MN        |
| Ruth Peterson                  | Columbia Heights, MN    | Annie Simones     | Saint Cloud, MN       |
| Norman Petrik                  | Minneapolis, MN         | Murray Smart      | Beardsley, MN         |
|                                |                         | Carole Smiley     | Bloomington, MN       |



|                      |                         |                     |                   |
|----------------------|-------------------------|---------------------|-------------------|
| Lisa Smith           | Byron, MN               | Linda Fowler        | Sherman, MS       |
| Elizabeth Songalia   | Saint Paul, MN          | Charme Henriques    | 39110, MS         |
| Christy Spear        | Isle, MN                | Robin Hero          | Jackson, MS       |
| Sheila Speedling     | Woodbury, MN            | Jan Hillegas        | Jackson, MS       |
| Jo-Ann Sramek        | Hermantown, MN          | Aubrey Johnson      | Pascagoula, MS    |
| Joe Sriver           | Edina, MN               | Hannah King         | Jackson, MS       |
| David Steinhauer     | CHAMPLIN, MN            | Michele Leff        | Gulfport, MS      |
| Jill Stockman        | Saint Paul, MN          | Nellie Medlin       | Memphis, MS       |
| Kevin Stueven        | St Cloud, MN            | Clay Miles          | Meridian, MS      |
| Anne Sugnet          | Minneapolis, MN         | Sally Morrow        | Hattiesburg, MS   |
| Cathy Swanson        | Inver Grove Heights, MN | Hayley Patterson    | Vicksburg, MS     |
| Tracy Templin        | Isle, MN                | Jean Saja           | Raymond, MS       |
| Patricia Thielman    | Buffalo, MN             | Laura Salvati       | Hernando, MS      |
| Keith Thompson       | Saint Paul, MN          | Millicent Thapa     | Oxford, MS        |
| Naina Touray         | Saint Paul, MN          | Tracy S Troth       | Pearl, MS         |
| Pamela Turner        | Eden Prairie, MN        | Barbarai Walls      | Salttillo, MS     |
| Michele Vaillancourt | Saint Paul, MN          | Rosemary Ward       | Greenville, MS    |
| Julie Van Osdel      | Lakeville, MN           | Melanie Young       | Waterford, MS     |
| Peter Veits          | Burnsville, MN          | Pat A               | Hazelwood, MO     |
| A.K. Vincent         | Saint Paul, MN          | Nancy Akerley       | Holts Summit, MO  |
| Toni Virta           | Minnetrista, MN         | Donna Alexander     | Ballwin, MO       |
| Brenda Walstrom      | Farmington, MN          | Cara Artman         | Saint Louis, MO   |
| Jeanne Ward          | Minnetonka, MN          | June Attarian       | Saint Louis, MO   |
| Clifton Ware         | Minneapolis, MN         | Patricia Auer       | Ballwin, MO       |
| Linda Weber          | Hopkins, MN             | John Aughinbaugh    | Saint Louis, MO   |
| Layla Weide          | Saint Paul, MN          | Christine Bagnell   | Columbia, MO      |
| Stefanie Weisgram    | Saint Joseph, MN        | Carol Baier         | Kirkville, MO     |
| Joseph Wenzel        | Lake Elmo, MN           | Palmeta Baier       | Kirkville, MO     |
| Daniel Werkema       | Minneapolis, MN         | Michelle Baker      | Belton, MO        |
| Jess Wiersma         | Fergus Falls, MN        | Stephi Baker        | Saint Charles, MO |
| Kimerly Wilcox       | Otsego, MN              | Holly Barr          | KS City, MO       |
| Brian Wilkerson      | Plymouth, MN            | Lynelle Behler      | Ofallon, MO       |
| Dana Willis-Jick     | Red Wing, MN            | Marla Berry         | Saint Charles, MO |
| Andrew Willman       | Maple Grove, MN         | Greg Bischof        | Springfield, MO   |
| Rachel Wolf          | Isanti, MN              | Loren Boline        | Lee's Summit, MO  |
| Dakotah Woller       | Redwood Falls, MN       | John Bromell        | Saint Louis, MO   |
| J Wurmnest           | Lake Crystal, MN        | Sarah Brown         | Saint Peters, MO  |
| Bryan Wyberg         | Roseville, MN           | Margaret Brown      | Foristell, MO     |
| Voicu Zamfira        | South Haven, MN         | Courtney Brown      | Florissant, MO    |
| Catherine Zimmer     | Saint Paul, MN          | Dianna Bryan        | KS City, MO       |
| Allison Anderson     | Meridian, MS            | Katharine Buchholtz | Florissant, MO    |
| Jane Biggins         | Ukiah, MS               | Carl Burns          | Columbia, MO      |
| Sherri Eubanks       | Olive Branch, MS        | Susan Burns         | Independence, MO  |

|                       |                       |                        |                                     |
|-----------------------|-----------------------|------------------------|-------------------------------------|
| Vic Burton            | KS City, MO           | Lauren Greenwood       | Fenton, MO                          |
| Susan Butler          | Saint Joseph, MO      | Rachel Grover          | Independence, MO                    |
| Antoinette C.         | MD Heights, MO        | Ann Gulick             | Saint Louis, MO                     |
| Sharon Carder-Jackson | Excelsior Springs, MO | Christine Harker       | Kirkville, MO                       |
| Alex Christensen      | Saint Louis, MO       | Mary Harris            | Rolla, MO                           |
| Patricia Ciapciak     | Saint Louis, MO       | Donna Hart             | Saint Charles, MO                   |
| Stephanie Cole        | Florissant, MO        | Rosina Harter          | Breckenridge Caldwell<br>County, MO |
| Michael Cowl          | Ballwin, MO           | Jo Ann Sharrie Hawkins | Reeds Spring, MO                    |
| Michael Crouch        | Wentzville, MO        | Jeanne Heitman         | Saint Louis, MO                     |
| Karren Crouch         | KS City, MO           | Sandra Holbrook        | Aurora, MO                          |
| Janice Dannhauser     | KS City, MO           | Cindy Honigfort        | Manchester, MO                      |
| Alex Dayoub           | KS City, MO           | Natasha Hopkins        | Black Jack, MO                      |
| Heather Demartino     | Kearney, MO           | Sasha Hough            | Liberty, MO                         |
| Denise Denise         | Raytown, MO           | Janice Hughes          | Jefferson City, MO                  |
| L Dennis              | Independence, MO      | Martha Jaegers         | Saint Louis, MO                     |
| Steve Disch           | Saint Louis, MO       | Erin Javurek           | Florissant, MO                      |
| Karen Doerr           | Grandview, MO         | Vicki6 Johnson         | KS City, MO                         |
| Margaret Dowdy        | Florissant, MO        | Angela Jones           | Lees Summit, MO                     |
| Marie Driscoll        | Lees Summit, MO       | David Judd             | Eureka, MO                          |
| Amy Dubman            | Saint Louis, MO       | Jay King               | Springfield, MO                     |
| Karen Edwards         | St. Louis, MO         | Laurie Kleen           | Saint Louis, MO                     |
| Jeremy Eggerman       | Battlefield, MO       | David Klinge           | Fenton, MO                          |
| Martha Ellison        | Saint Joseph, MO      | Zachary Knudsen        | Florissant, MO                      |
| Genevieve Esson       | Saint Louis, MO       | Ruth Koblenz           | Saint Louis, MO                     |
| D Evans               | Kearney, MO           | Sharon Kosek           | St. Joseph, MO                      |
| Sue Felling           | Saint Louis, MO       | Nadine Kouba           | Saint Louis, MO                     |
| John Femmer           | Saint Charles, MO     | Don Kreienheder        | Warrenton, MO                       |
| Jessica File          | St Charles, MO        | Veronique Laliberte    | St Louis, MO                        |
| Teresa Fine           | West Plains, MO       | Larry Lambeth          | Springfield, MO                     |
| Robin Finley          | Harrisonville, MO     | Sherry Leonardo        | Grandview, MO                       |
| Patricia Fitzroy      | Manchester, MO        | Kelli Lewis            | Independence, MO                    |
| Herschel Flowers      | KS City, MO           | Marilyn Long           | Grandview, MO                       |
| George Fonyo          | Saint Louis, MO       | Bruce Lowrey           | Independence, MO                    |
| Sharon Frank          | KS City, MO           | Jan Lowrey             | Hallsville, MO                      |
| Mark Fraser           | Kirkwood, MO          | Carrie Luce            | KS City, MO                         |
| Kelsey Gerveler       | Hannibal, MO          | Debbie Mannion         | chesterfield, MO                    |
| Don Ghidoni           | KS City, MO           | Emma Masetti           | Saint Louis, MO                     |
| Becky Giarratano      | Independence, MO      | Howard Masin           | Manchester, MO                      |
| John Glebs            | Saint Louis, MO       | Marisa Mason           | Saint Peters, MO                    |
| Irene Gnemi           | Newburg, MO           | Dona Mathis            | Saint Louis, MO                     |
| Cody Goin             | Marshfield, MO        | Ed Mccoy               | O Fallon, MO                        |
| Robert Gore           | MD Heights, MO        | Jennifer Mcdaniel      | Springfield, MO                     |
| Michelle Graves       | Farmington, MO        |                        |                                     |

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|-------------------|-------------------|-------------------------|---------------------|
| Jennifer Mcdaniel | Springfield, MO   | Nancy Schmitz           | O Fallon, MO        |
| Linda McMullin    | Springfield, MO   | Michael Schraier        | Wildwood, MO        |
| Jamie Mcnail      | Herculaneum, MO   | Tom Schwegler           | KS City, MO         |
| Mark Mcquitty     | Columbia, MO      | Barbara Seematter       | Maplewood, MO       |
| Suzanne Mcshane   | Saint Louis, MO   | Claire Sefiane          | Ozark, MO           |
| Carole Mehl       | KS City, MO       | M Seley                 | Saint Louis, MO     |
| Rachel Meltzer    | Saint Louis, MO   | Irene Serrano Osborn    | Columbia, MO        |
| Jeanine Mielke    | Columbia, MO      | Michele Shoresman       | St. Louis, MO, MO   |
| B Mielke          | Columbia, MO      | Buddy Silvey            | Leeâ€™s Summit, MO  |
| Kerby Miller      | Columbia, MO      | Nathan Skaggs           | Earth City, MO      |
| Crickett Miller   | Saint Louis, MO   | Toni Smalley            | Cottleville, MO     |
| Phil Miller       | Warrensburg, MO   | Elizabeth Smith         | KScity, MO          |
| Sandra Mogg       | Saint Joseph, MO  | Rachel Speed Speed      | Fenton, MO          |
| Angie Moore       | Springfield, MO   | Edward Spevak           | Saint Louis, MO     |
| Judith Moran      | Saint Louis, MO   | Julie Squire            | Raytown, MO         |
| Julie Morgan      | KS City, MO       | Paula Standley          | Saint Louis, MO     |
| C Moses           | KS City, MO       | Karen Stephenson        | Saint Louis, MO     |
| John Moszyk       | Saint Louis, MO   | Jan Stewart             | KS City, MO         |
| Denise Motta      | Saint Louis, MO   | Janice Stewart          | Savannah, MO        |
| Larry Mrazek      | Chesterfield, MO  | Debbie Stinehart        | Park Hills, MO      |
| Jennifer Murray   | Saint Louis, MO   | Mike Stoakes            | Lees Summit, MO     |
| Jennifer Murray   | Saint Louis, MO   | Tricia Straub           | Columbia, MO        |
| Bob Nutt          | Lees Summit, MO   | Linda Stutz             | Woodson Terrace, MO |
| Anne Orth         | Gerald, MO        | S Sxott                 | KS City, MO         |
| Jan Petersen      | Ballwin, MO       | Linda Tarantino         | Independence, MO    |
| Tammy Phan        | KS City, MO       | Melissa Theiss          | University City, MO |
| Charles Phillips  | Boonville, MO     | Allissa Thomas          | Affton, MO          |
| Kerry Pitt-Hart   | Saint Louis, MO   | Chris Thomson           | Saint Louis, MO     |
| Angela Ponder     | Saint Charles, MO | Joan Tolle              | St. Louis, MO       |
| Ann Pott          | Ballwin, MO       | James Tornatore         | Saint Louis, MO     |
| Ann R             | Rolla, MO         | Mary Touzinsky          | Saint Louis, MO     |
| Stephanie Ritter  | Moscow Mills, MO  | Nancy Tucher            | Foristell, MO       |
| Julie Roedel      | Saint Louis, MO   | Kathleen Turner         | Saint Louis, MO     |
| Charles Roeslein  | SAINT PETERS, MO  | Margaret Guilfooy Tyler | Saint Louis, MO     |
| David Rogers      | Ballwin, MO       | Grace Ukoha             | Warrensburg, MO     |
| Michael Roth      | Clayton, Mo., MO  | Lanna Ultican           | Blue Springs, MO    |
| Carolyn Ryan      | Saint Louis, MO   | Randi Vincent           | Saint Peters, MO    |
| Rebecca Ryan      | Saint Louis, MO   | Terry Vollmer           | Saint Louis, MO     |
| Florence Saeger   | Saint Louis, MO   | Connell Walker          | Saint Louis, MO     |
| K Sandknop        | Ballwin, MO       | Harold Watson           | Springfield, MO     |
| Barbara Sasyk     | FLORISSANT, MO    | Taylor Webber           | Saint Louis, MO     |
| Dorothy Schaeffer | Country Club, MO  | Sherri West             | St Louis, MO        |
| Emma Scharff      | Saint Louis, MO   | Joyce Whitcomb          | Platte City, MO     |

|                    |                  |                     |                     |
|--------------------|------------------|---------------------|---------------------|
| David Wilen        | Saint Louis, MO  | Lorraine Roweconlan | Missoula, MT        |
| Sheila Williams    | Liberty, MO      | Tamar Sautter       | Great Falls, MT     |
| Cynthia Willsey    | Blue Springs, MO | Linda Smith         | Missoula, MT        |
| Robin Wintjen      | Florissant, MO   | Tristan Sophia      | Reed Point, MT      |
| K Wolking          | Hermann, MO      | Sally Stansberry    | Missoula, MT        |
| Nancy Yoke         | Lees Summit, MO  | Nike Stevens        | BOZEMAN, MT         |
| Raymond Zahra      | Florissant, MO   | Dan Struble         | Livingston, MT      |
| Paulette Zimmerman | Saint Louis, MO  | Shari Sutherland    | Belgrade, MT        |
| Thomas Zurkammer   | Union, MO        | Ruth Swenson        | helena, MT          |
| Sasha Abrahamson   | Missoula, MT     | Marilynn Taylor     | Florence, MT        |
| James Anderson     | Billings, MT     | Mary Thibaudeau     | Great Falls, MT     |
| Carol Averill      | Big Sandy, MT    | Robin Vogler        | Bigfork, MT         |
| Bev Beck Glueckert | Missoula, MT     | Emily Withnall      | Missoula, MT        |
| Carmen Cocores     | missoula, MT     | Linda Alwardt       | Henderson, NV       |
| Faith Conroy       | Cameron, MT      | Antoinette Ambrosio | Las Vegas, NV       |
| John Duerk         | Missoula, MT     | Thomas Artle        | Incline Village, NV |
| Chana Elliott      | Great Falls, MT  | Catherine Ayoub     | Las Vegas, NV       |
| Jenna Fallaw       | Bozeman, MT      | Emily Bacheller     | Reno, NV            |
| Penelope Fedro     | Bozeman, MT      | Diana Baker         | Las Vegas, NV       |
| Jillian Fiedor     | Billings, MT     | Tristen Barkley     | Las Vegas, NV       |
| Marion Gerrish     | Kalispell, MT    | M. April Blake      | Henderson, NV       |
| Rochelle Gravance  | Columbus, MT     | Gail Blank          | Pahrump, NV         |
| Paul Grove         | Eureka, MT       | Joyce Block         | North Las Vegas, NV |
| Amanda Haaland     | Billings, MT     | Karin Boixo         | Las Vegas, NV       |
| Heidi Handsaker    | Billings, MT     | Janelle Bowen       | SpAR, NV            |
| Sandra Kempa       | Black Eagle, MT  | Clare Bridges       | Reno, NV            |
| Nancy Krekeler     | Red Lodge, MT    | Donna Bubb          | Henderson, NV       |
| Wanda L            | Billings, MT     | Elaine Carrick      | Reno, NV            |
| Judi Layne         | Livingston, MT   | David Cencula       | Spanish Springs, NV |
| Valerie Lloyd      | Whitefish, MT    | Paul Chadwick       | Las Vegas, NV       |
| Mel Lopane         | Helena, MT       | Kathleen Chuter     | Las Vegas, NV       |
| Zachary Lukes      | Missoula, MT     | Margret Cifaldi     | Las Vegas, NV       |
| Janet Lyon         | Missoula, MT     | Christian Claudio   | Las Vegas, NV       |
| Susan McClure      | Bozeman, MT      | Elaine Coburn       | Washoe Valley, NV   |
| Marlene Miller     | Butte, MT        | Diane Coghlan       | Reno, NV            |
| Robert Miller      | Billings, MT     | Anita Cohen         | Las Vegas, NV       |
| Anne Moore         | Missoula, MT     | Robin Coleman       | Las Vegas, NV       |
| Wayne Mortimer     | Bozeman, MT      | Maurene Conway      | North Las Vegas, NV |
| Chava Neshner      | Missoula, MT     | M D                 | Incline Village, NV |
| Toddy Perryman     | Corvallis, MT    | John Dalla          | Las Vegas, NV       |
| Catherine Ream     | Clinton, MT      | Dawson Deal         | SpAR, NV            |
| Gail Richardson    | Bozeman, MT      | Mike Dee            | Las Vegas, NV       |
| Ella Robson        | Huntley, MT      | Taz Deville         | Las Vegas, NV       |

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|-------------------------|---------------------|------------------------|---------------------|
| Mary Dickson            | Dayton, NV          | Keith Milligan         | Dayton, NV          |
| Sandra Dieterich-Hughes | Las Vegas, NV       | Gaye Momerak           | Reno, NV            |
| Lynn Douglas            | Henderson, NV       | Osh Morethstorm        | SpAR, NV            |
| Bruce Doxey             | Zephyr Cove, NV     | Millie Mummery         | Henderson, NV       |
| Jake Elfenbein          | Las Vegas, NV       | Marcus N               | Las Vegas, NV       |
| Erin Eschler            | Las Vegas, NV       | Dennis Nelson          | Las Vegas, NV       |
| Jerry Eskew             | Las Vegas, NV       | Lanora And Damon Ovino | Las Vegas, NV       |
| Joyce Eugenia           | Las Vegas, NV       | Guy Perkins            | Reno, NV            |
| Michele Fairbairn       | Las Vegas, NV       | Mary Peterson          | Ely, NV             |
| Larry French            | Carson City, NV     | Joelle Porter          | Reno, NV            |
| Jeff Galloway           | Carson City, NV     | Mary Puckett           | SpAR, NV            |
| Maria Garcia            | Minden, NV          | Rachel Rakaczky        | SpAR, NV            |
| Derek Gendvil           | Las Vegas, NV       | Dorrie Rapp            | Reno, NV            |
| Ken Gibb                | Zephyr Cove, NV     | Alex Rappaport         | Henderson, NV       |
| Ingeborg Glier          | North Las Vegas, NV | Judith Reis            | SpAR, NV            |
| Lucille Gonyea          | Henderson, NV       | John Rentchler         | Las Vegas, NV       |
| Judith Gregg            | Henderson, NV       | Susan Reynolds         | Zephyr Cove, NV     |
| Bruce Hauser            | Pahrump, NV         | Carol Richards         | LAS VEGAS, NV       |
| Wanda Hayes             | Las Vegas, NV       | Rhonda Robinson        | Reno, NV            |
| Linda Helvie            | Las Vegas, NV       | Kristin Rosenqvist     | Reno, NV            |
| Jeanette Hills          | Carson City, NV     | Amy Sanders            | Reno, NV            |
| Barbara Hughes          | Las Vegas, NV       | Carol Saulsbury        | Yerington, NV       |
| Darlene Jespersen       | SpAR, NV            | William Schaffer       | Las Vegas, NV       |
| Mary Jones              | Carson City, NV     | Connie Schuett         | Spanish Springs, NV |
| Arthur Kemish           | Henderson, NV       | Barbara Scott          | Las Vegas, NV       |
| Rebecca Kerr            | LAS VEGAS, NV       | Francine Scott         | Las Vegas, NV       |
| Carol King              | North Las Vegas, NV | Malcolm Simpson        | Las Vegas, NV       |
| Marilyn Koff            | North Las Vegas, NV | Michal Stansifer       | Las Vegas, NV       |
| Joy Kosloske            | North Las Vegas, NV | Dolores Steele         | Carson City, NV     |
| Elizabeth Kramer        | Las Vegas, NV       | Jean Stidham           | Las Vegas, NV       |
| Lynn Krikorian          | Las Vegas, NV       | P Sturm                | Reno, NV            |
| Ann Langevin            | Boulder City, NV    | Kathy Sugarman         | Henderson, NV       |
| Candace Laporte         | Las Vegas, NV       | Sharon Sullivan        | Reno, NV            |
| Michael Little          | SpAR, NV            | Molly Swabb            | Las Vegas, NV       |
| Sofia Love              | Las Vegas, NV       | Staci Tefertiller      | Las Vegas, NV       |
| Jamie Lurtz             | Las Vegas, NV       | Jt Terwilliger         | Las Vegas, NV       |
| Tobe Martin             | Reno, NV            | Anaya Teves            | Reno, NV            |
| Debbie Martinez         | Reno, NV            | Debbie Thomas          | Fallon, NV          |
| Denise Martini          | Las Vegas, NV       | Janice Tumpap          | Las Vegas, NV       |
| David May               | Carson City, NV     | John & Shirley Valney  | Reno, NV            |
| Richard Meier           | SpAR, NV            | Phyllis Vanleuven      | Las Vegas, NV       |
| Richard Mell            | Henderson, NV       | Natalie Velechovsky    | Las Vegas, NV       |
| Jennifer Messina        | Ely, NV             | Janet Walls            | Minden, NV          |

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| Vernon Weir              | Las Vegas, NV     | Nan Weilage       | Crete, NE            |
| Nillie Welson            | Las Vegas, NV     | Roger Wess        | Chadron, NE          |
| Tina Wilson              | Pahrump, NV       | Dorianne Almann   | Hinsdale, NH         |
| Kasey Wilson             | Las Vegas, NV     | Chris Anctil      | North Hampton, NH    |
| Anne Wolfenbarger        | Las Vegas, NV     | Charles Arnold    | Manchester, NH       |
| Kirsten Wolner           | Henderson, NV     | Janice Banks      | Center Barnstead, NH |
| David Worley             | Reno, NV          | Yvonne Beran      | Milford, NH          |
| Angela Zellner           | Las Vegas, NV     | Valerie Bergeron  | Somersworth, NH      |
| Carl Zimmerman           | Las Vegas, NV     | Sheilagh Bergeron | Northfield, NH       |
| Sandi Aden               | Lincoln, NE       | Robert Brown      | Bow, NH              |
| Karen Liza Avelino-David | Plattsmouth, NE   | Hannah Burgess    | Nashua, NH           |
| Karen Liza Avelino-David | Plattsmouth, NE   | Tina Burr         | Rochester, NH        |
| Pamela Baker             | Lincoln, NE       | John Canepa       | warner, NH           |
| Ingrid Bangers           | Lincoln, NE       | James Carley      | Keene, NH            |
| Kat Boylan               | Papillion, NE     | Paul Carnes       | Hinsdale, NH         |
| Kaci Caldwell            | Omaha, NE         | D Carr            | hanover, NH          |
| Sue Carpenter            | Blair, NE         | Carol Churchill   | Lebanon, NH          |
| John Clark               | Omaha, NE         | Linda Clifford    | Keene, NH            |
| Nancy Cole               | Franklin, NE      | Barbara Collins   | Troy, NH             |
| Justine Condon           | Lincoln, NE       | Mina Connor       | Londonderry, NH      |
| Donna Darling            | Omaha, NE         | Jay Cooke         | Derry, NH            |
| Rod Davis                | La Vista, NE      | Bill Cuff         | Milton, NH           |
| Wayne Faris              | Omaha, NE         | Jane Davidson     | Lancaster, NH        |
| Linda Gertig             | Bellevue, NE      | Robyn Dibble      | Raymond, NH          |
| Katherine Gibbons        | Omaha, NE         | Melanie Dieringer | Epping, NH           |
| Darcy Goodrich           | Omaha, NE         | Lynda Dobens      | Nashua, NH           |
| Shawna Gorman            | Omaha, NE         | Wendy-Ann Dorval  | Franklin, NH         |
| John Gray                | Nebraska City, NE | Eleanor Dubois    | Hudson, NH           |
| Pamela Grieser           | Lincoln, NE       | Judith Eliasberg  | Concord, NH          |
| Donna Hotes              | Sidney, NE        | Deborah Fexis     | Nottingham, NH       |
| Nichole Huntley          | Plattsmouth, NE   | Chris Finer       | Bristol, NH          |
| Mark Johns               | Omaha, NE         | Fern Fitzgerald   | Antrim, NH           |
| Shauna Kiple             | Lincoln, NE       | Linda Freeman     | Milford, NH          |
| Renaee Mckeon            | Bennington, NE    | Evan Fulmer       | Merrimack, NH        |
| Janna Mcquinn            | Omaha, NE         | W Ghadyk          | Nashua, NH           |
| Anna O                   | Omaha, NE         | Karen Gleason     | Nashua, NH           |
| F Olson                  | North Platte, NE  | Eva Goss          | Sandwich, NH         |
| Malinda Plog             | Scottsbluff, NE   | Tori Haringsmith  | Peterborough, NH     |
| Susan Radosti            | Creighton, NE     | Marie Hemann      | West Ossipee, NH     |
| Linda Rea                | Hastings, NE      | Kennon Hieken     | Merrimack, NH        |
| Mary Rogge               | Lincoln, NE       | Coeli Hoover      | Dover, NH            |
| Natalie Van Leekwijck    | Hazard, NE        | Pam Hubbard       | Rochester, NH        |
| Bob Walling              | Omaha, NE         | Andy Hughes       | Milford, NH          |

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| Ellen Jahos             | Alstead, NH       | Kenneth Ruby                | Salem, NH                   |
| Bernt Johansson         | Keene, NH         | Mara Sabinson               | Cornish, NH                 |
| Leward Johnson          | Nashua, NH        | Nathan Schaefer             | Antrim, NH                  |
| Patricia Kendall        | Plymouth, NH      | Katherine Scheffel          | Salem, NH                   |
| Caroline Kittredge      | Sunapee, NH       | Richard Simard              | Manchester, NH              |
| Kyle Knipe              | Seabrook, NH      | Pamela Sullivan             | Hooksett, NH                |
| Linnell Krikorian       | Manchester, NH    | Karen Swistak               | Newmarket, NH               |
| Debbie Kruenegel-Farr   | Weare, NH         | Gail Szafir                 | Troy, NH                    |
| Christine Kuhlman       | North Sutton, NH  | Dottie Tancreti             | Nashua, NH                  |
| Gail Laker-Phelps       | Chichester, NH    | Frank Thomas                | manchester, NH              |
| Liz Lambregtse          | Lincoln, NH       | Erlene Towner               | Milford, NH                 |
| A Lanoue                | Hollis, NH        | Jaye Trottier               | Bedford, NH                 |
| Denise Legault          | Atkinson, NH      | Elaina Valzania             | Greenland, NH               |
| Dominic Libby           | Milton, NH        | Paula Vanbuskirk            | Seabrook, NH                |
| Karlaine Livingston     | Claremont, NH     | Jane Varnum                 | Bennington, NH              |
| Richard Lombard         | Londonderry, NH   | Emily Volckmann             | MANCHESTER, NH              |
| Janette Lozada          | Laconia, NH       | Joe Webstet                 | Hooksett, NH                |
| Maureen & Thomas Madray | Manchester, NH    | Deborah Wiggin              | Stratham, NH                |
| Kyle Mcadam             | Gilmanton, NH     | Lena Williams               | Belmont, NH                 |
| Linda Mccracken         | Marlow, NH        | Jan Wright                  | Amherst, NH                 |
| Michelle Mckenney       | Rochester, NH     | Carol Wyndham               | Peterborough, NH            |
| David Merrill           | Union, NH         | Vincent Zito                | Concord, NH                 |
| Barbara Merrill         | Union, NH         | Ibn-Umar Abbasparker        | Sayreville, NJ              |
| Robert Miller           | Lebanon, NH       | Sheri Abramson              | Freehold, NJ                |
| Alice Moore             | Rindge, NH        | Patty Adams                 | Lincoln Park, NJ            |
| Trois Moore             | Goffstown, NH     | Lauren Adiletta             | Ewing, NJ                   |
| Meg Newman              | San Francisco, NH | Loretta Aja                 | Cherry Hill, NJ             |
| Mary Oconnell           | Londonderry, NH   | Raghav Akula                | Moorestown, NJ              |
| Ruth O'Neal             | Effingham, NH     | Nancy Albanese              | Wyckoff, NJ                 |
| Fleur Palau             | Wolfboro, NH      | Gabriela Almeida-Altamirano | North Plainfield, NJ        |
| Sammia Panciocco        | Salem, NH         | Mariam Andalibi             | Andover, NJ                 |
| Grace Payne             | Tamworth, NH      | Paula Andersen              | Wall, NJ                    |
| Diane Pease             | Littleton, NH     | Eileen Anglin               | Barneгат, NJ                |
| Merle Pieterse          | Wilton, NH        | Mike Anuszewski             | Bayonne, NJ                 |
| Angela Plagge           | Etna, NH          | Julieann Arbolino           | NETCONG, NJ                 |
| Carl Prellwitz          | Dover, NH         | Debra Ashton                | Montville, NJ               |
| Janet Prince            | Nashua, NH        | Andy Aсталos                | Lakewood, NJ                |
| Michelle Ramauro        | Keene, NH         | Joy Atkin                   | Union, NJ                   |
| Laurie Rardin           | Concord, NH       | Arlene Aughey               | Saddle Brook, NJ            |
| Linda Rauter            | Chichester, NH    | Jean Auletta                | Bridgewater, NJ             |
| Judith Reed             | Keene, NH         | Michele B                   | Cape May Court House,<br>NJ |
| Brian Rollins           | Merrimack, NH     | Pat Balko                   | Denville, NJ                |
| Judy Romano             | Windham, NH       |                             |                             |

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| Joan Ballah          | Somerset, NJ          | Belinda Caraballo    | Keasbey, NJ                |
| Kevin Bannon         | Sussex, NJ            | Christopher Carbone  | Gibbsboro, NJ              |
| Catherine Barisic    | Eastampton, NJ        | Roger Cardillo       | Bayonne, NJ                |
| Candace Bassat       | Beachwood, NJ         | Martin Carroll       | Watchung, NJ               |
| Mary Pat Baumgartner | Madison, NJ           | Timothy Carroll      | Watchung, NJ               |
| John Beck            | Manahawkin, NJ        | Barbara Cartonriker  | Locust, NJ                 |
| David Bendich        | Little Falls, NJ      | Mary Casale          | Cedar Knolls, NJ           |
| Nick Berezansky      | Ridgewood, NJ         | Mr. And Mrs. Casazza | Union, NJ                  |
| Jeanette Bergeron    | Hamilton, NJ          | Jeanette Casciano    | Hewitt, NJ                 |
| Karen Berman         | audubon, NJ           | Ilia Castellano      | Pennington, NJ             |
| Cori Bishop          | Egg Harbor City, NJ   | Jerry Castor         | Toms River, NJ             |
| Hannah Blakeman      | Belle Mead, NJ        | Katherine Castro     | KearNew York, NJ           |
| Karina Blanco        | Englewood, NJ         | Millie Cathers       | Stratford, NJ              |
| Kim Block            | Westfield, NJ         | Karen Charette       | Milltown, NJ               |
| Lil Bobow            | montville, NJ         | Leon Cheong          | North Bergen, NJ           |
| Wendy Bogle          | Burlington, NJ        | Nancy Chismar        | Edison, NJ                 |
| Ruth Boice           | Shamong, NJ           | Thomas Cierech       | Ringwood, NJ               |
| Kevin Bolembach      | Clifton, NJ           | Susan Clark          | Califon, NJ                |
| Ruth Boroshok        | Summit, NJ            | William Cleary       | Morganville, NJ            |
| George Bourlotos     | Morris Plains, NJ     | Jarrett Cloud        | Morris Plains, NJ          |
| Kristin Bradley      | Medford Lakes, NJ     | Michelle Cobert      | Mount Ephraim, NJ          |
| Judith Brickman      | Lawrence Township, NJ | Barbara Codispoti    | Mt Arlington, NJ           |
| Joseph Brigandi      | Wildwood, NJ          | Susan Coen           | Elizabeth, NJ              |
| Leora Broche         | Berkeley Heights, NJ  | Susan Cole           | Matawan, NJ                |
| Donna Browne         | Sewell, NJ            | Rhonda Coles         | New Brunswick, NJ          |
| Barbara V Brusco     | Hackensack, NJ        | Annette Coomber      | Ringwood, NJ               |
| Emily Buchenhorst    | Gibbstown, NJ         | Morgan Cormia        | Cliffside Park, NJ         |
| Barbara Buchman      | Red Bank, NJ          | Nancy Cormia         | Cliffside Park, NJ         |
| Patricia Burke       | Mountainside, NJ      | Rute Correia         | Elizabeth, NJ              |
| M Burke              | Mount Holly, NJ       | Cecilia Correia      | Elizabeth, NJ              |
| Peter Burval         | Hillside, NJ          | Cecilia Correia      | Elizabeth, NJ              |
| Paula Bushkoff       | Princeton, NJ         | Ruth Correia         | Elizabeth, NJ              |
| Grace Byrne          | Lakewood, NJ          | Donna Coughlin       | Randolph, NJ               |
| David Caccia         | Hammonton, NJ         | Holly Cox            | Towaco, NJ                 |
| Kelly Caffrey        | Parlin, NJ            | Chris Coyle          | Hoboken, NJ                |
| Eugene Cahill        | Hackettstown, NJ      | Frances Crocco       | Flemington, NJ             |
| Cilocas Caiano       | ELIZABETH, NJ         | Pamela Crouse-Haas   | Haddon Heights, NJ         |
| Aurora Caiano        | Elizabeth, NJ         | Felicity Cruz        | pennington, NJ             |
| Olivia Calabrese     | Maplewood, NJ         | Samantha Cruz        | Manville, NJ               |
| Debra Cameron        | Laurence Harbor, NJ   | Alice Cuffo          | Manchester Township,<br>NJ |
| Mark Canright        | Asbury, NJ            |                      |                            |
| John Cantilli        | Cranford, NJ          | Joe Cundari          | Cliffside Park, NJ         |
| Renee Caputo         | Matawan, NJ           | Nancy Cunningham     | Ringoes, NJ                |



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|---------------------|-----------------------|---------------------|-------------------------|
| Ruth Curiale        | Fair Haven, NJ        | Lolly Finocchiaro   | Pilesgrove, NJ          |
| Bechi Currier       | Howell, NJ            | Margaret Fishbourne | Milford, NJ             |
| Marie Curtis        | Oakhurst, NJ          | Krista Florin       | Tenafly, NJ             |
| Elaine Cuttler      | Millburn, NJ          | Daniel Flynn        | Monmouth Junction, NJ   |
| H Cyr               | Hillsborough, NJ      | Patricia Flynn Op   | Asbury Park, NJ         |
| Marie Danna         | Ridgefield, NJ        | Erin Foley-Collins  | Hazlet, NJ              |
| Daryl W. De Boer    | Toms River, NJ        | Tracy Foster        | Egg Harbor Township, NJ |
| Rachelle De Leon    | West Caldwell, NJ     |                     |                         |
| Rosemary Deflorio   | River Vale, NJ        | Katherine Foster    | Princeton, NJ           |
| Jennifer Degerolamo | Barrington, NJ        | Trevanne Foxton     | East Brunswick, NJ      |
| Patricia Degutis    | Toms River, NJ        | Barbara Francett    | Bloomfield, NJ          |
| Lindsay Deitch      | Hawthorne, NJ         | Terry Friedman      | Montvale, NJ            |
| Nancy Denbo         | Mount Laurel, NJ      | Denise Frullo       | Westwood, NJ            |
| David Derocker      | Morristown, NJ        | S G                 | Mays landing, NJ        |
| Renee Detore        | North Arlington, NJ   | Denise Gallagher    | Sicklerville, NJ        |
| Rocco Dimeo         | Highlands, NJ         | James M Gambino Jr  | Pennington, NJ          |
| Alexander Dinell    | Ocean City, NJ        | Rafael Garay        | Wallington, NJ          |
| E Dirienzo          | Hackettstown, NJ      | Robert Garcia       | Morristown, NJ          |
| Louis Discepola     | Hackensack, NJ        | Sandra Garcia       | Newark, NJ              |
| Kathryn Dodds       | Brick, NJ             | Peter Gargiulo      | Maywood, NJ             |
| Rosalind Doremus    | Hillsborough, NJ      | George Gavaras      | West Long Branch, NJ    |
| Sue Dougherty       | Irvington, NJ         | Shannon Gessler     | Cedar Grove, NJ         |
| Elaine Drody        | Highland Park, NJ     | John Gfrorer        | Wenonah, NJ             |
| Susan Dusman        | Fair Lawn, NJ         | Jessica Giallanza   | South Plainfield, NJ    |
| Susan Eckstein      | Stanhope, NJ          | Brian Gill          | Hopatcong, NJ           |
| Lisa Elderton       | Forked River, NJ      | Nicole Gillespy     | Maple Shade, NJ         |
| Margaret Ellis      | Watchung, NJ          | Bernadette Gillick  | West Caldwell, NJ       |
| Donna Ellis         | Wenonah, NJ           | Ann Gilson          | Springfield, NJ         |
| Mark Elman          | Park Ridge, NJ        | Linda Giorgianni    | Glen Gardner, NJ        |
| Douglas Engle       | Budd Lake, NJ         | Aileen Glynn        | Kendall Park, NJ        |
| Donna Ennis         | Franklinville, NJ     | Lascinda Goetschius | Fair Lawn, NJ           |
| Maria Esquilin      | Phillipsburg, NJ      | Allan Goldstein     | Old Tappan, NJ          |
| Karen Estok         | Manalapan, NJ         | Dennis M. Goldstein | Denville, NJ            |
| Mary Fahey          | Twp of Washington, NJ | Allan Goldstein     | Old Tappan, NJ          |
| Judy Fairless       | Warren, NJ            | Karla Gonzalez      | Cinnaminson, NJ         |
| Angie Farmer        | new brunswick, NJ     | Sherry Gordon       | Fort Lee, NJ            |
| Ashley Farreny      | Pennsauken, NJ        | Bruce Gordon        | Fort Lee, NJ            |
| Sherri Faunce       | Moorestown, NJ        | Mary Goudey         | Newton, NJ              |
| Karen Feiler        | New Providence, NJ    | Rhyan Grech         | Mays Landing, NJ        |
| Steven Fenster      | Pemberton, NJ         | Kenneth C. Grosso   | Montclair, NJ           |
| Marge Ferrance      | Iselin, NJ            | Maria Hackman       | Linwood, NJ             |
| Annemarie Fesi      | Oaklyn, NJ            | Joseph Haemmerle    | Rockaway, NJ            |
| Robert Findlay      | Flanders, NJ          | Andrea Hall         | Oak Ridge, NJ           |

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|--------------------|------------------------|-----------------------|----------------------------------|
| Susan Hanlon       | Manchester, NJ         | Matt King             | West Orange, NJ                  |
| Anne Harbut        | Mount Ephraim, NJ      | Julie Kirsh           | Shrewsbury, NJ                   |
| Ronald Harkov      | Princeton, NJ          | Gehan Klele           | Caldwell, NJ                     |
| Christopher Harris | Riverton, NJ           | Dennis Knaack         | Bogota, NJ                       |
| Kathy Hart         | Caldwell, NJ           | Angela Knable         | Flanders, NJ                     |
| Chris Hazynski     | Burlington, NJ         | Angela Knable         | Flanders, NJ                     |
| Kerry Heck         | Pequannock, NJ         | Christine Koehler     | Vineland, NJ                     |
| Carol Helm         | Mahwah, NJ             | Eddie Konczal         | Monroe Township, NJ              |
| James Hemm         | Manahawkin, NJ         | Irene Koomans         | New Milford, NJ                  |
| David Hernandez    | Williamstown, NJ       | Laurel Kornfeld       | Highland Park, NJ                |
| Gabe Hernandez     | Westwood, NJ           | Patricia Kortjohn     | Wyckoff, NJ                      |
| Marie Herron       | Wildwood, NJ           | Ron Kovatis           | Sea Isle City, NJ                |
| Billie Herzer      | Flemington, NJ         | Richard Krauseii      | Milford, NJ                      |
| Kathy Hess         | Point Pleasant, NJ     | Cheryl Krueger        | Manahawkin, NJ                   |
| Emily Hiddemen     | Marlton, NJ            | Joyce Kunie           | Colonia, NJ                      |
| Linda Houtman      | Hightstown, NJ         | Daniel Kurz           | Monroe Township, NJ              |
| Harry Hudson       | Wildwood, NJ           | Judy Kushner          | Cherry Hill, NJ                  |
| Bryce Hugelmeier   | Hackensack, NJ         | Carolyn Laberta       | Whiting, NJ                      |
| Ann Hulyo          | Cinnaminson, NJ        | Mary Lagatol          | Ramsey, NJ                       |
| Mary Hunt          | Great Meadows, NJ      | Alexis Langelotti     | Fairview, NJ                     |
| Margaret Iannuzzi  | Mount Laurel, NJ       | Leslie Lanphear       | Monmouth Junction, NJ            |
| Takako Ishii       | Aberdeen, NJ           | David Lavender        | Atco, NJ                         |
| Howard Iwahashi    | West Caldwell, NJ      | D. Laviola            | New Milford, NJ                  |
| Carol Jagiello     | Bloomington, NJ        | David Lawrence        | Morris Plains, NJ                |
| Donna Jenny        | Toms River, NJ         | Josette Le Beau       | Neptune, NJ                      |
| Erica Johanson     | Hopewell, NJ           | Niki Learn            | New Brunswick, NJ                |
| Carolyn Johnson    | Colonia, NJ            | Sara Lerner           | Flemington, NJ                   |
| Aimee Johnson      | Atco, NJ               | Barbara Levenson      | Cedar Grove, NJ                  |
| Diane Jones        | Hillsborough, NJ       | Maureen Levier        | Beachwood, NJ                    |
| Sallymarie Jones   | Whitehouse Station, NJ | CathyeElizabeth Levin | Bayonne, NJ                      |
| Michael Joyce      | butler, NJ             | Andrea Lewis          | Trenton, NJ                      |
| Karen Kallio       | Keyport, NJ            | Shawn Liddick         | South Amboy, NJ                  |
| John Kaminski      | Howell, NJ             | Kitrina Lisiewski     | Monroe Township, NJ              |
| Pamela Kane        | Bedminster, NJ         | Christina Little      | Mount Laurel, NJ                 |
| Erin Karp          | Teaneck, NJ            | Kathi Lombardi        | Highland Park, NJ                |
| A Kasbarian        | Kenilworth, NJ         | Daniela Londono       | Jersey city, NJ                  |
| John Kashner       | Trenton, NJ            | Colleen Loughran      | Spring Lake, NJ                  |
| Paul Kaufman       | Bergenfield, NJ        | Lindsay Lowry         | Hopewell Borough<br>(Mercer), NJ |
| Barbara Keefer     | Marmora, NJ            |                       | Woodbridge, NJ                   |
| John Keim          | Hoboken, NJ            | Denise Lytle          | Hazlet, NJ                       |
| Jim Kerner         | Bergenfield, NJ        | Christine Lytle       | Montclair, NJ                    |
| Jean Kim           | Ridgewood, NJ          | Wendy Macauley        | Bridgewater, NJ                  |
| Fawn King          | Pennington, NJ         | Marie Maciel          |                                  |

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|---------------------|-------------------------------|-----------------------|-----------------------|
| Janice Mackanic     | Point Pleasant, NJ            | Lydia Mohammed        | Bayonne, NJ           |
| Lee Mackenn         | Bloomington, NJ               | Bonnie Monte          | Madison, NJ           |
| Mina Mahadevan      | Princeton, NJ                 | Julio Mora            | Monmouth Junction, NJ |
| Christine Malaroche | Madison, NJ                   | Christine Mueller     | Rochelle Park, NJ     |
| William Malle       | Nutley, NJ                    | Sam Mufalli           | Cherry Hill, NJ       |
| Eddie Malok         | North Plainfield, NJ          | Peter Mulshine        | Phillipsburg, NJ      |
| Vicki Malsbury      | Florence, NJ                  | Melanie Murphy        | Cherry Hill, NJ       |
| Ann Malyon          | 7436, NJ                      | Donna Murphy          | Wall Township, NJ     |
| Marilyn Manganello  | Manalapan, NJ                 | Maureen Murphy-Smolka | Sparta, NJ            |
| Pat Manthey         | Watchung, NJ                  | Muhammad Murtaza      | Secaucus, NJ          |
| Elise Margulis      | Livingston, NJ                | Jeanette Myers        | ParsippaNew York, NJ  |
| Marnie Marrone      | Egg Harbor Township,<br>NJ    | Lisa Nami             | Browns Mills, NJ      |
| Stephen Marshall    | Blackwood, NJ                 | Patricia Nardone      | Union, NJ             |
| Linda Maslanko      | Mays Landing, NJ              | E Neal                | CMCH, NJ              |
| Tarin Mason         | Cape May Court House,<br>NJ   | Len Neering           | Clifton, NJ           |
| Helen Mault         | Clifton, NJ                   | Edith Neimark         | Princeton, NJ         |
| Kathy Mazzio        | Del Haven, NJ                 | Michael Nelson        | Haworth, NJ           |
| Peter Mccarthy      | Newton, NJ                    | Haley Newell          | Florence, NJ          |
| Holly Mcdonald      | Robbinsville, NJ              | Susan Nicolich        | Califon, NJ           |
| Joy Mcginty         | Marlton, NJ                   | Linda Nietman         | North Plainfield, NJ  |
| Pamela Mcintyre     | Ocean City, NJ                | David Nighbert        | Bloomfield, NJ        |
| Linda Mckillip      | Erial, NJ                     | Jeremy Noll           | Cherry Hill, NJ       |
| Jane McMahill       | Princeton, NJ                 | Gina Norton           | Forked River, NJ      |
| Laura McMullen      | Fair Lawn, NJ                 | Melanie Nowlin        | ALLENHURST, NJ        |
| Sue Mcnally         | Andover, NJ                   | Adriana Nunez         | Jersey City, NJ       |
| Sue Mcnally         | Andover, NJ                   | Alfredo Ocasio        | Jackson, NJ           |
| Pattie Mctigue      | Township Of<br>Washington, NJ | Frank Ostlinger       | Branchville, NJ       |
| Maryellen Meli      | Hackettstown, NJ              | C P                   | Hamilton, NJ          |
| Susan Mellen        | Morristown, NJ                | Sister Josie P        | Jersey City, NJ       |
| Lynn Merle          | Vineland, NJ                  | John Palenik          | Cranford, NJ          |
| Paula Meyer         | Oaklyn, NJ                    | Patricia Palermo      | Summit, NJ            |
| Denise Meyer        | Bridgewater, NJ               | George Palmer         | Summit, NJ            |
| Robert Meyer        | West Creek, NJ                | Sandra Parciak        | Keansburg, NJ         |
| Sally Mikkelsen     | Princeton, NJ                 | Jerry Parrillo        | Manchester, NJ        |
| April Miller        | Barnegat Light, NJ            | Arlene Patoray        | Paramus, NJ           |
| Debra Miller        | Belvidere, NJ                 | Michael Paul          | Hopewell, NJ          |
| Barbara Miller      | Franklin, NJ                  | Rich Pecha            | Lake Hopatcong, NJ    |
| Cheryl Miller       | West Orange, NJ               | Cynthia Percarpio     | Stanhope, NJ          |
| Karly Mintz         | Montclair, NJ                 | Melissa Pflugh        | Oakland, NJ           |
| Lenise Mitchell     | Edison, NJ                    | Sylvia Piskunov       | Paterson, NJ          |
|                     |                               | George Pizzio         | Roebing, NJ           |
|                     |                               | Stamatina Podes       | Flemington, NJ        |
|                     |                               | Nancy Pollitto        | Colts Neck, NJ        |

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|-------------------------|------------------------|------------------------------------|------------------------|
| Robert Pollitto         | Colts Neck, NJ         | Paul Russo                         | Bloomfield, NJ         |
| Daurie Pollitto         | Aberdeen, NJ           | Mari S                             | Woodcliff, NJ          |
| Joseph Ponisciak        | Willingboro, NJ        | Gary Salata                        | ewing, NJ              |
| Maureen Porcelli        | North Bergen, NJ       | Natalie Sanchez                    | Haworth, NJ            |
| Catherine Prince        | Mays Landing, NJ       | Joanne Sanda                       | North Bergen, NJ       |
| Carol J Puchyr          | KearNew York, NJ       | Ann Sandritter                     | Old Bridge, NJ         |
| Joaquim Pujals          | Reading, NJ            | Cara Sanfilippo                    | Hoboken, NJ            |
| Kyra Quan               | Jersey City, NJ        | Wilfredo Santiago                  | Hamilton Twp, NJ       |
| Andrew Quinlan          | Pitman, NJ             | Lise Sayer                         | Livingston, NJ         |
| Charles And Diana Quinn | Livingston, NJ         | Corey Schade                       | Loch Arbour, NJ        |
| Peter R.                | Southampton, NJ        | Ingrid Schaefer                    | Westwood, NJ           |
| Rebecca Rabinowitz      | Moorestown, NJ         | Helen Schafer                      | Whitehouse Station, NJ |
| Joann Ramos             | Iselin, NJ             | Debbie Schepis                     | Roselle Park, NJ       |
| Pat Randow              | Burlington, NJ         | Clifford J. & Christine E. Schmutz | Boonton                |
| Linda Range             | Tabernacle, NJ         |                                    | Township, NJ           |
| Jeffrey Rattner         | Belvidere, NJ          | Lucy Schneider                     | Westwood, NJ           |
| Frances Recca           | Netcong, NJ            | Douglas Schneller                  | Cranford, NJ           |
| Barbara Recht           | Ramsey, NJ             | Susan Schneller                    | Lawrence Township, NJ  |
| Va Rees                 | Hewitt, NJ             | Joan Schnorbuss                    | Allenhurst, NJ         |
| Edward Reichman         | West Orange, NJ        | John Schreiber                     | Trenton, NJ            |
| Joe Reilly              | Highlands, NJ          | Jeffrey Schreiber                  | Ridgewood, NJ          |
| Vincent Reilly          | Lyndhurst, NJ          | Steve Schulek                      | Lakewood, NJ           |
| Isabella Reniakiewicz   | New Providence, NJ     | Ellen Schultz                      | Red Bank, NJ           |
| Kathy Reul              | Bloomington, NJ        | Maureen Schulze                    | Atco, NJ               |
| Jesse Reyes             | Maplewood, NJ          | Brian Schwartz                     | Freehold, NJ           |
| Brian Reynolds          | Atlantic City, NJ      | Brandon Schwartz                   | Mahwah, NJ             |
| Nicole Riembauer        | Upper Saddle River, NJ | Howard Schwartz                    | Forked River, NJ       |
| Charles Rinear          | Gibbstown, NJ          | Louise Sellon                      | New Providence, NJ     |
| Mary Rivas              | Riverton, NJ           | Eileen Senko                       | Toms River, NJ         |
| Joyce Rivera            | Mullica Hill, NJ       | Rita Sheehan                       | Brielle, NJ            |
| James Robertson         | North Middletown, NJ   | Daniel J Shields                   | Keansburg, NJ          |
| Evelyn Rocco            | Manchester, NJ         | L Ship                             | Island Heights, NJ     |
| Lisa Roche              | Lawrence Township, NJ  | Robin Shivers                      | Rahway, NJ             |
| Sabine Roehr            | Jersey City, NJ        | Carol Short                        | Mays Landing, NJ       |
| May Roessner            | Ringoes, NJ            | Vikram Sikand                      | Weehawken, NJ          |
| Pat Rolston             | Mount Tabor, NJ        | Melisande Skerpac                  | westampton, NJ         |
| Monica Romani           | Marlton, NJ            | Ilaine P. Slemmer                  | Mickleton, NJ          |
| Linda Rossin            | Lake Hopatcong, NJ     | Dale Sloat                         | Hopatcong, NJ          |
| A Rossner               | Summit, NJ             | Jan Sloat                          | Hopatcong, NJ          |
| M Rossner               | Summit, NJ             | Steven Smeregla                    | Salem, NJ              |
| S Rothauser             | West Orange, NJ        | Jazmene Smith                      | Millville, NJ          |
| Sharon Rothe            | Rockaway, NJ           | Karen Smith                        | Rockaway, NJ           |
| Emma Rothman            | Cranford, NJ           | Michaeline Snopek                  | Hopatcong, NJ          |

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|------------------------|----------------------------|--------------------|-----------------------------|
| Nancy Socha            | Hackettstown, NJ           | Alyson Waldinger   | Township Of                 |
| Beverly Solomon        | Voorhees, NJ               |                    | Washington, NJ              |
| Valeria Spada          | New York, NJ               | Mark Waltzer       | Cherry Hill, NJ             |
| Helga Spector          | Somerset, NJ               | Marissa Weber      | Matawan, NJ                 |
| Carol Spillane-Mueller | Montvale, NJ               | Stuart Weinstock   | West Orange, NJ             |
| Sarah Spitzer          | River Edge, NJ             | Frederick White    | Piscataway, NJ              |
| Karen Spring           | Westville, NJ              | David White        | Beverly, NJ                 |
| Joseph Stark           | Oceanport, NJ              | Dr. Scott Whitener | SOMERSET, NJ                |
| Kenneth Steel          | Mount Laurel, NJ           | Eric Whitman       | Branchburg, NJ              |
| Noel Stoll             | Aberdeen, NJ               | Linda Williams     | Cape May Court House,<br>NJ |
| Stuart Strongin        | Dover, NJ                  |                    | Toms River, NJ              |
| Marsha Swartz          | Lakewood, NJ               | Paul Williams      | Mt Arlington, NJ            |
| Maureen Swiss          | Hopatcong, NJ              | Pat Williamson     | Princeton, NJ               |
| Sue Szambelak          | Wildwood, NJ               | Deb Wills          | Cliffside Park, NJ          |
| Ann T                  | Martinsville, NJ           | Bryan Wishik       | Raritan, NJ                 |
| Cathy Taati            | Marlton, NJ                | Rachel Wolf        | Wyckoff, NJ                 |
| Nancy Tanzi            | Edison, NJ                 | G Y                | Rutherford, NJ              |
| Chuck Taut             | Montvale, NJ               | Donna Yozenas      | mullica hill, NJ            |
| Bianca Tenneriello     | Jackson, NJ                | Salvatore Zappala  | Middletown, NJ              |
| Doreen Terletzky       | Clifton, NJ                | Dawn Zelinski      | North Brunswick, NJ         |
| Rebecca Terwilliger    | Saddle Brook, NJ           | Donna Zsoldos      | Santa Fe, NM                |
| Nancy Thelot           | Maplewood, NJ              | Russ Abolt         | Lamy, NM                    |
| Leslie Tierney         | Paramus, NJ                | Sabine Almstrom    | Las Cruces, NM              |
| Barbara Tillman        | North Bergen, NJ           | Tracie Amend       | Albuquerque, NM             |
| Janis Todd             | Princeton Junction, NJ     | Aaron Anderson     | Los Alamos, NM              |
| James Tomori           | East Brunswick, NJ         | Christina Anderson | Alamogordo, NM              |
| Claudia Tomporowski    | Whiting, NJ                | Maria Aragon       | ALBUQUERQUE, NM             |
| Iwona Torosdag         | Egg Harbor Township,<br>NJ | J R Baldwin        | HighRolls, NM               |
|                        | Cliffside Park, NJ         | Jean Bash          | Questa, NM                  |
| Tabitha Totten         | Emerson, NJ                | Angela Bates       | Edgewood, NM                |
| Kara Travers           | East Windsor, NJ           | Richard Beery      | Santa Fe, NM                |
| Vivien Trichter        | Holmdel, NJ                | Allyson Bennett    | Espanola, NM                |
| Kim Triola             | Florence, NJ               | Rhonda Berger      | Albuquerque, NM             |
| Stephen Troyanovich    | Hamilton Township, NJ      | Kira Betzen        | Albuquerque, NM             |
| Lucinda Tucker         | Fair Haven, NJ             | Judy Bierbaum      | Albuquerque, NM             |
| Gabriel Tucker         | Morristown, NJ             | Uphoria Blackham   | Santa Fe, NM                |
| June Tullman           | Lake Hiawatha, NJ          | Katherine Blagden  | Bernalillo, NM              |
| Michelle Vallee        | Warren, NJ                 | Halli Bourne       | Silver City, NM             |
| Ro Vanstrien           | Delran, NJ                 | Jane Brady         | Los Lunas, NM               |
| Sue Velez              | North Arlington, NJ        | Greg Brockway      | Santa Fe, NM                |
| Anthony Vella          | Whiting, NJ                | Gary Brooker       | Albuquerque, NM             |
| Robert Viola           | Englewood, NJ              | Jay Brown          | Los Ranchos, NM             |
| Susan Walden           |                            | Steven Burr        |                             |

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|--------------------|-------------------------|-----------------------|-----------------|
| Ruth Burstrom      | Albuquerque, NM         | Ken Hughes            | Santa Fe, NM    |
| Leslie Byrnes      | Albuquerque, NM         | Pieter Hull           | Santa Fe, NM    |
| Debra Cameron      | Edgewood, NM            | Cynthia Hull          | Gallup, NM      |
| Dene Canon         | Santa Fe, NM            | Stephanie Hurlburt    | Albuquerque, NM |
| Terry Carlin       | Santa Fe, NM            | Jessica Jakubanis     | Albuquerque, NM |
| Susan Carlson      | Rio Rancho, NM          | Bettemae Johnson      | Albuquerque, NM |
| Corinne Case       | Deming, NM              | Lizabeth Johnson      | Los Alamos, NM  |
| Andrea Castellanos | LOS LUNAS, NM           | Pat Jones             | Deming, NM      |
| Larry T Caudill    | Albuquerque, NM         | Mary Judge            | Santa Fe, NM    |
| Susan Cote         | Corrales, NM            | Kathryn Kaffer        | Gallup, NM      |
| Maury Culberg      | Santa Fe, NM            | Marcia Kellam         | Santa Fe, NM    |
| Kathy Dahl-Bredine | Silver City, NM         | Ns Khalsa             | Pecos, NM       |
| Patty Daley        | San Ysidro, NM          | Galen Knight          | Canjilon, NM    |
| Susan Diaz         | Albuquerque, NM         | Roger Kulp            | Albuquerque, NM |
| Nova Dorn          | Albuquerque, NM         | Susan Kutz            | Las Cruces, NM  |
| Mary Drabbs        | Albuquerque, NM         | Carol Kuykendall      | Albuquerque, NM |
| Cynthia Edney      | Sandia Park, NM         | Jeff Laflamme         | Santa Fe, NM    |
| Carolbeth Elliott  | SILVER CITY, NM         | Sandra Lambert        | Albuquerque, NM |
| Diana Emerick      | Albuquerque, NM         | Marianne Lappin       | Las Cruces, NM  |
| I. Engle           | Village of Tularosa, NM | Kirsten Lear          | Santa Fe, NM    |
| Martha Ennis       | Albuquerque, NM         | Barbara Lenssen       | Santa Fe, NM    |
| Steven Evans       | Corrales, NM            | Martin Livgren        | Albuquerque, NM |
| Robert Fischhoff   | Silver City, NM         | Jane Love             | Socorro, NM     |
| Russell Fletcher   | Santa Fe, NM            | Colette Love-Battista | Albuquerque, NM |
| Marilyn Folden     | Albuquerque, NM         | Javier Lujan          | Las Cruces, NM  |
| Patricia Foschi    | Santa Fe, NM            | Vern Maresh           | Albuquerque, NM |
| Dawn Foster        | Placitas, NM            | Christina Maris       | Albuquerque, NM |
| Londa Fowler       | Albuquerque, NM         | Natalie Martinez      | Santa Fe, NM    |
| Maria Gabrielle    | Santa Fe, NM            | Nicki Marx            | Taos, NM        |
| K R Garland Phd Dd | Silver City, NM         | Jan Mccreary          | Silver City, NM |
| Rita Glasscock     | Santa Fe, NM            | Pj Mcdaniel           | Albuquerque, NM |
| Amanda Graham      | Albuquerque, NM         | Gloria R. Mckinnon    | Santa Fe, NM    |
| Chilton Gregory    | ALBUQUERQUE, NM         | Bethann Mcvicker      | Santa Fe, NM    |
| Ronald Grinage     | Santa Fe, NM            | Dotti Merrigan        | Santa Fe, NM    |
| Ronald Groves      | Silver City, NM         | Karen Milstein        | Santa Fe, NM    |
| D Gunderson        | Albuquerque, NM         | Ron Mittan            | Albuquerque, NM |
| Kelly H            | Albuquerque, NM         | Todd Monson           | Albuquerque, NM |
| Jo Ann Hakola      | Las Cruces, NM          | Linda Morgan          | Los Lunas, NM   |
| Tomas Herndon      | Albuquerque, NM         | Seth Mosgofian        | Santa Fe, NM    |
| Carol Hobart       | Albuquerque, NM         | Sean Mount            | Placitas, NM    |
| Dick Hogle         | Espanola, NM            | Janice Mulkey         | Albuquerque, NM |
| Gary Holcomb       | Albuquerque, NM         | Ann Neef              | Rio Rancho, NM  |
| Jessie Howell      | Rio Rancho, NM          | Carilene Newby        | El Prado, NM    |

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|----------------------|---------------------|---------------------|----------------------|
| Mindy Newby          | Santa Fe, NM        | Patricia Whalen     | Taos, NM             |
| Nathan Nielsen       | Placitas, NM        | Judy Whitney        | Albuquerque, NM      |
| Thomas Noble         | Albuquerque, NM     | John Wilhelmsen     | Placitas, NM         |
| Jan Novak            | Santa Fe, NM        | L. L. Wilkinson     | Taos, NM             |
| Brian Otto           | Las Cruces, NM      | Elmer L. Wilson     | Albuquerque, NM      |
| Leon Parker          | Taos, NM            | Blaine Wimberly     | Santa Fe, NM         |
| Gordon Parker Iii    | Albuquerque, NM     | Betsy Wolf          | El Prado, NM         |
| George Parrish       | Belen, NM           | Crystal Wolf        | Santa Fe, NM         |
| Robin Pascal         | Edgewood, NM        | Jeannette Zipes     | Rio Rancho, NM       |
| Shannon Patrick      | Las Cruces, NM      | Lauren A            | New York, NY         |
| Marilyn Patterson    | Alamogordo, NM      | Ariel A             | Sound Beach, NY      |
| Adrienne Pond        | El Prado, NM        | Ingrid Aagaard      | Mc Graw, NY          |
| Maresa Pryor-Luzier  | Edgewood, NM        | Marilyn Abbey       | Painted Post, NY     |
| Peter Rannells       | Albuquerque, NM     | Diane Abel-Bey      | Hollis, NY           |
| Martha Rivas         | Aztec, NM           | James Abendroth     | Bloomington, NY      |
| Les Roberts          | Serafina, NM        | Jon Abrams          | New Rochelle, NY     |
| Sue Roberts          | Albuquerque, NM     | Kim Acevedo         | Staten Island, NY    |
| Geraldine Rohrkemper | Albuquerque, NM     | Judith Ackerman     | New York, NY         |
| John Roig            | Santa Fe, NM        | Katie Acomb         | Mount Morris, NY     |
| Rebecca Rose         | Las Cruces, NM      | Patricia Adamo      | Staten Island, NY    |
| Marilyn Rose         | Albuquerque, NM     | Berk Adams          | Panama, NY           |
| Adrienne Ross        | Galisteo, NM        | Chatral Adze        | Livingston Manor, NY |
| Emily Rothman        | Albuquerque, NM     | Linda Agoston       | Brooklyn, NY         |
| Lawry Sager          | Albuquerque, NM     | Joan Agro           | Blauvelt, NY         |
| Linda Schmidt        | Albuquerque, NM     | Alfred Alarcon      | Pelham, NY           |
| Stephanie Shine      | Ponderosa, NM       | Alexandra Albu      | Ridgewood, NY        |
| Lee Sides            | Roswell, NM         | Steven Ald          | Angola, NY           |
| Anne Silva           | Tijeras, NM         | Gail Aldous         | Ballston Spa, NY     |
| Andrea Soeiro        | Santa Fe, NM        | Ann Alexander       | Mechanicville, NY    |
| Lori Solanki         | Taos, NM            | Jeannette Allan     | New Rochelle, NY     |
| Roger Southward      | Placitas, NM        | Linda Allen         | Buffalo, NY          |
| June Stakun          | Ranchos de Taos, NM | Victoria Allen      | Newburgh, NY         |
| Signe Stuart         | Santa Fe, NM        | Robert Almeida      | Pomona, NY           |
| Marion Subjenski     | Peralta, NM         | Edith Alston        | New York, NY         |
| Aija Thacher         | Albuquerque, NM     | Peggy Alt           | Philmont, NY         |
| John Thayer          | Buena Vista, NM     | Rachel Alulis       | Brooklyn, NY         |
| Lisa Treme           | Albuquerque, NM     | David Amrod         | Baldwinsville, NY    |
| Gerard Vachez        | Santa Fe, NM        | Dave Amrod          | Baldwinsville, NY    |
| Carol Vigil          | Espanola, NM        | Bernadette Andaloro | East Syracuse, NY    |
| Zoe Viles            | Santa Fe, NM        | Lynn Ander          | Rochester, NY        |
| Linda Walters        | Los Lunas, NM       | Victoria Anderson   | West Point, NY       |
| Terry Warkentine     | Albuquerque, NM     | Betsy Andrews       | Brooklyn, NY         |
| Victor Webster       | lamy, NM            | John Andreykovic    | Patterson, NY        |

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|----------------------|------------------------|----------------------|----------------------|
| Frank Andronico      | Bronx, NY              | Sherry Bender        | New York, NY         |
| Sarah Apfel          | New York, NY           | Bettyann Benware     | Albany, NY           |
| Stephen Appell       | Brooklyn, NY           | Diana Berardino      | New York, NY         |
| Pamela Aprilliano    | Cohoes, NY             | Gloriajean Berberich | Mineola, NY          |
| Donna Ardizzone      | Hopewell Junction, NY  | Rachel Berg          | New York, NY         |
| Kelly Armour         | Stone Ridge, NY        | Janice Bernard       | Scarborough, NY      |
| Leslie Armstrong     | Staten Island, NY      | Kris Berner          | Fort Hunter, NY      |
| Mary Arnold          | Hilton, NY             | Maxine Bernstein     | New Yorkack, NY      |
| Susan Arpin          | Katonah, NY            | Mary Berry           | Croton On Hudson, NY |
| Sarah Arvio          | Bronx, NY              | Vanessa Bersani      | Geneva, NY           |
| Maria Asteinza       | Forest Hills, NY       | Lorraine Best        | New York, NY         |
| Maria Astorga        | Flushing, NY           | Teresa Beutel        | Congers, NY          |
| Reynolds Aultman     | MD, NY                 | Monica Beyer         | Brooklyn, NY         |
| John Avery           | Owego, NY              | Neil Bleifeld        | New York, NY         |
| Romani B             | Schenectady, NY        | Beatrice Bloom       | Warwick, NY          |
| Vaish B              | Hartsdale, NY          | Steve Bloom          | New York, NY         |
| Kimberly Badger      | Carmel, NY             | R Bloom              | Massapequa Park, NY  |
| Patricia Baecker     | Lancaster, NY          | Hope Blume           | Whitestone, NY       |
| Peter Bailey         | Canton, NY             | David Bly            | Ithaca, NY           |
| Janice Bailey        | New York, NY           | Pablo Bobe           | New York, NY         |
| Laura Baines         | Commack, NY            | Lynne Boehm          | Bayside, NY          |
| Janet Barad          | Brooklyn, NY           | Nancy Bogen          | New York, NY         |
| Eric Bare            | Vestal, NY             | Curtis Bohlen        | Dobbs Ferry, NY      |
| Sylvia Barnard       | Albany, NY             | Nicole Bohlman       | Coram, NY            |
| Pat Barnes           | Middletown, NY         | Diane S. Bold        | Victor, NY           |
| Ann Barnett          | New York, NY           | Diedre Bollinger     | Stephentown, NY      |
| Sophie Barrett       | Watervliet, NY         | Lauren Bond          | New York, NY         |
| Gregory Barrett      | Brooklyn, NY           | Carla Borea Brown    | Bronx, NY            |
| Marina Barry         | New York, NY           | Va Bottorff          | Syracuse, NY         |
| Jeanne Bartsch       | Huntington, NY         | Va Bottorff          | Syracuse, NY         |
| Maryann Barulich     | New York, NY           | Sally Bowden         | New York, NY         |
| Diane Basile         | Huntington Station, NY | Bowen Bowen          | New York, NY         |
| Bonnie Bassey        | Central Islip, NY      | Terri Brady          | Mattituck, NY        |
| Gertrude Battaly     | White Plains, NY       | Kathleen Braico      | Queensbury, NY       |
| Lani Bauer           | Henrietta, NY          | Sally Braid          | Harrison, NY         |
| Pf Bauer             | staten island, NY      | Anita Brandariz      | Brooklyn, NY         |
| Linda Beach          | Albany, NY             | Lynn Brandon         | White Plains, NY     |
| Patricia Beck        | North Babylon, NY      | Sara Brandt          | Brooklyn, NY         |
| Barbara Becker       | Melville, NY           | Chris Brandt         | New York, NY         |
| Alisha Begell        | Savona, NY             | Imani Brathwaite     | Brooklyn, NY         |
| Bernadette Belcastro | Floral Park, NY        | Dennis Brennan       | Flushing, NY         |
| J. Belcastro         | Floral Park, NY        | Timothy Brennan      | Farmington, NY       |
| Lauren Bell          | E Greenbush, NY        | Jared Brenner        | New York, NY         |



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|--------------------|-----------------------|------------------------|------------------------|
| Ivana Breznik      | New York, NY          | Charles Casper         | Union Springs, NY      |
| Ronald Broder      | Kenmore, NY           | Rebecca Casstevens     | Binghamton, NY         |
| Kathleen Broderick | Little Valley, NY     | Susan Castelli-Hill    | Melville, NY           |
| Alice Brody        | New York, NY          | Sondra Catarraso       | Elmhurst, NY           |
| Corinne Brooks     | Richfield Springs, NY | Linda Cauvin           | New York, NY           |
| Denise Brown       | Rockaway Park, NY     | Jodi Cavanaugh         | Bloomington, NY        |
| Katherine Brown    | New York, NY          | Royal Chamberlain      | Rochester, NY          |
| Yvette Brown       | New York, NY          | David Chang            | Hicksville, NY         |
| Elyse Brows        | West Hempstead, NY    | Carol Chappell         | High Falls, NY         |
| Trixie Brunson     | Utica, NY             | Debra Chase            | Chester, NY            |
| Cecile Brunswick   | New York, NY          | Pauline Chavel         | Larchmont, NY          |
| Ben Bryant         | New York, NY          | Margaret Chin          | Croton On Hudson, NY   |
| Diane Bugliarelli  | Carmel, NY            | Monique Christensen    | Potsdam, NY            |
| Beverly Bullock    | New York, NY          | Joe Chwojdak           | Cheektowaga, NY        |
| Assunta Bullock    | Ridgewood, NY         | Scott Clark            | Greene, NY             |
| Jim Buonocore      | Highland, NY          | Werner Classen         | Ballston Lk, NY        |
| Susan Burian       | Williston Park, NY    | Deanna Cleary          | Cherry Plain, NY       |
| James Burnette     | Lackawanna, NY        | Laurie Cline           | Riverhead, NY          |
| Gail Burns         | Farmingdale, NY       | Alison Coccari         | Bay Shore, NY          |
| Deborah Bushey     | Clifton Park, NY      | Joy Cody               | Garden City, NY        |
| Edward Butler      | New York, NY          | Lynn Coffey-Edelman    | Huntington Station, NY |
| Dee Buttimer       | Mattydale, NY         | Douglas Coffin         | Rome, NY               |
| Nick Byrne         | Bedford, NY           | Elihu Cohen            | Syracuse, NY           |
| Elena C            | Bayside, NY           | Sheryl Cohn            | Huntington Station, NY |
| Sharon Campanella  | Kenmore, NY           | Joan Cole              | Staten Island, NY      |
| Roberta Campbell   | Croton On Hudson, NY  | Bernard Coleman        | Kew Gardens, NY        |
| Nathalie Camus     | Hollis, NY            | Lori Colon             | Freeport, NY           |
| Grace Capobianco   | New York, NY          | Heather Colon          | New York, NY           |
| Keitha Capouya     | East Meredith, NY     | Jeff Colton            | East Williston, NY     |
| R. Capp            | New York, NY          | Joan Conca             | White Plains, NY       |
| Lyn Capurro        | Great Neck, NY        | Selyde Conde-Rodriguez | Walden, NY             |
| Enid Cardinal      | Baldwinsville, NY     | Cheryl Condon          | Tonawanda, NY          |
| Andrew Cardno      | Massapequa Park, NY   | Byron Connell          | Albany, NY             |
| Christine Caredda  | Rego Park, NY         | Douglas Cooke          | Brooklyn, NY           |
| W Cariello         | North Baldwin, NY     | Lori Coon              | Red Hook, NY           |
| Elliot Carlin      | New York, NY          | Charlene Cooper        | Poestenkill, NY        |
| Prudence Carlson   | New York, NY          | Marion Corbin          | Rhinebeck, NY          |
| Cheryl Carnahan    | Rochester, NY         | Sharon Courselle       | Poughkeepsie, NY       |
| Cheryl Carnahan    | Rochester, NY         | Susan Cox              | New York, NY           |
| Beth Carr          | Stafford, NY          | Gary Cox               | Rochester, NY          |
| Vicki Casarett     | Rochester, NY         | Laurie Cozza           | StoNew York Point, NY  |
| Janice Casarsa     | Tonawanda, NY         | Susan Crane            | Centereach, NY         |
| Lynda Caspe        | New York, NY          | William Crane          | Spring Valley, NY      |

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|------------------------|----------------------|--------------------|------------------------|
| Erika Crispo           | New York, NY         | Priscilla Drake    | Penn Yan, NY           |
| Allison Crockett       | Brooklyn, NY         | Robert Drucker     | East Northport, NY     |
| Paola Cruz             | Bronx, NY            | Barbara Drucker    | E Northport, NY        |
| Hazel Cruz             | New York, NY         | Mil Drysdale       | New York, NY           |
| Kristin Cucolo         | Little Falls, NY     | Jesse Dubinsky     | Peekskill, NY          |
| Va Curry               | Valhalla, NY         | Walter Dudek       | Margaretville, NY      |
| Wendy Cushing          | Buffalo, NY          | N Dumser           | Northport, NY          |
| Michael Cynamon        | Syracuse, NY         | Kathy Dyas         | New York, NY           |
| Inoshi D               | New York, NY         | Aurela Dyrmishi    | Forest Hills, NY       |
| Liz D.                 | Bronx, NY            | Naomi Ebbitts      | Blue Point, NY         |
| Sandy Dalcais          | Woodside, NY         | Tammy Ebers-Radtke | Greenwood Lake, NY     |
| Beth Darlington        | Poughkeepsie, NY     | Jason Eckardt      | Kerhonkson, NY         |
| Audrey Davd            | White Plains, NY     | Thomas Eckardt     | New York, NY           |
| Jan Davis              | Pleasant Valley, NY  | Anne Ehmann        | Merrick, NY            |
| Jon Davis              | Warwick, NY          | Bob Ehmann         | Merrick, NY            |
| D. Day                 | Albany, NY           | Ingrid Eichenbaum  | New York, NY           |
| Stephen Day            | New York, NY         | Carol Elias        | Massena, NY            |
| Franco De Nicola       | Pittsford, NY        | Aimee Dars Ellis   | Burdett, NY            |
| Gianluca Delvecchio    | Staten Island, NY    | Lindi Elliss       | Harrison, NY           |
| Arline Demaio          | Little Falls, NY     | Jonathan Elston    | Lockport, NY           |
| Robert Dentan          | Buffalo, NY          | Jan Emerson        | New York, NY           |
| Christina Derespiris   | New Rochelle, NY     | Stephanie Epstein  | Islandia, NY           |
| Karen Desmond          | East Rochester, NY   | Nancy Erts         | Croton On Hudson, NY   |
| Kelly Devine           | Port Jefferson, NY   | Eric Esposito      | Brooklyn, NY           |
| Carol Devine           | Brooklyn, NY         | Nicolas Estevez    | Bronx, NY              |
| Claudia Devinney       | Perry, NY            | Anjarew Ettinger   | Hastings On Hudson, NY |
| Evangeline Dibenedetto | Bayside, NY          | Sujata Eyrick      | New York, NY           |
| Andrea Difiore         | New York, NY         | Elizabeth F        | Wappingers Falls, NY   |
| Jacquelyn Digiovanni   | Pittsford, NY        | P F                | Breezy Point, NY       |
| George Dillmann        | Ithaca, NY           | R F                | Port Washington, NY    |
| James Dimunno          | Long Island City, NY | Jennifer Falk      | Forest Hills, NY       |
| Victoria Dinardi       | Brooklyn, NY         | Patricia Farrell   | Kew Gardens, NY        |
| Roz Dinardo            | Wappingers Falls, NY | Raymond Farrington | Syracuse, NY           |
| Lee Dlugin             | New York, NY         | Peter Farris       | Neversink, NY          |
| Ruth Dolan             | West Sayville, NY    | D Fassman          | Westbury, NY           |
| Mike Dolan             | Chestnut Ridge, NY   | Maryann Fastook    | Brooklyn, NY           |
| Jeannine Dominy        | New York, NY         | Jane Fasullo       | Setauket, NY           |
| Alexa Donaphin         | New York, NY         | Mike Fegan         | Nanuet, NY             |
| Va Donohue             | Hudson Falls, NY     | Flo Fender         | Pine Valley, NY        |
| Linda Donovan          | Ossining, NY         | Lisa Ferguson      | Delmar, NY             |
| Michael Douglass       | Cortland, NY         | Ann Fernandez      | New York, NY           |
| Janet Downey           | Moriches, NY         | Marissa Ferraro    | Massapequa, NY         |
| Nancy Doyne            | New York, NY         | Joseph Ferraro     | Staten Island, NY      |

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|----------------------|-----------------------|------------------------|-------------------|
| Robert H. Feuchter   | Jamaica, NY           | Saveria Garciamacri    | Elmont, NY        |
| Linda Figuera        | New Rochelle, NY      | Trish Gardiner         | Weedsport, NY     |
| Bill Fioravanti      | Scarsdale, NY         | Peggy Garner           | Plattsburgh, NY   |
| Cristina Fiorillo    | New York, NY          | Deirdre Gately         | Yonkers, NY       |
| Julie Fissinger      | Brooklyn, NY          | Barbara Gautier        | New York, NY      |
| Kaitlin Fitch        | Troy, NY              | Susan Gayle            | New York, NY      |
| Doug Flack           | New York, NY          | Helene Geisert         | Glendale, NY      |
| Caren Flashner       | Washingtonville, NY   | Joseph Gelmis          | Haines Falls, NY  |
| Ellen Fleishman      | Brooklyn, NY          | Kristen Genovese       | Derby, NY         |
| Linda Fleming        | Rochester, NY         | Lewis Gersten          | New York, NY      |
| Judith Fletcher      | Bronx, NY             | Iman Ghavami           | New York, NY      |
| Marie Flom           | Yonkers, NY           | Patty Gibbons          | Central Islip, NY |
| Bobbie Flowers       | New York, NY          | Ward Giblin            | Binghamton, NY    |
| Catherine Foley      | StoNew York Brook, NY | Sibyll Gilbert         | Pawling, NY       |
| Lola Foote           | Mechanicville, NY     | Louanne Gilleland      | New York, NY      |
| Ann Forbes           | Bronx, NY             | Elizabeth Gilmore      | Dobbs Ferry, NY   |
| Fay Forman           | New York, NY          | Mildred Gittinger      | Schenectady, NY   |
| Janet Forman         | New York, NY          | Jeffrey Glazer         | Brooklyn, NY      |
| Mindy Fortgang       | Merrick, NY           | Alexander Goasdoue     | Bronx, NY         |
| Ellen Fox            | New York, NY          | Rebecca Godsil-Freeman | Brooklyn, NY      |
| Cheryl Frank         | Rochester, NY         | Sharon Goel            | Richmond Hill, NY |
| Merrill Frank        | Jackson Heights, NY   | Germe Gogel            | Clinton, NY       |
| Rachelle Fredette    | Albany, NY            | W Gold                 | Saugerties, NY    |
| Beth Jane Freeman    | Wantagh, NY           | Steven Goldman         | New York, NY      |
| Douglas Freidenstine | New York, NY          | Susan Goldman          | Huntington, NY    |
| Michael Freire       | Tuxedo Park, NY       | Eleanor Goldman        | East Meadow, NY   |
| Neil Freson          | Henrietta, NY         | Deborah Golembiewski   | Buffalo, NY       |
| Brenda Frey          | West Seneca, NY       | Gabriel Gomes          | Fishkill, NY      |
| Judy Frey            | Tonawanda, NY         | Gladys Gonzalez        | Staten Island, NY |
| Linda Friedman       | New York, NY          | Bettina Goodall        | Weedsport, NY     |
| David Friedman       | Jackson Heights, NY   | Philip Goodman         | Binghamton, NY    |
| Jeanne Friedman      | New York, NY          | Marcy Gordon           | Brooklyn, NY      |
| Jeanne Friedman      | New York, NY          | Bernice Gordon         | Brooklyn, NY      |
| Jeb Fries            | Fredonia, NY          | Mark Gorsetman         | Whitestone, NY    |
| Maryellen Frye       | Rochester, NY         | Coleen Gowans          | Astoria, NY       |
| Cathy Fuller         | Kirkville, NY         | Robert Grace           | Albany, NY        |
| Michael Fulwiler     | Bronxville, NY        | C Grachus              | Honeoye, NY       |
| Victoria Furio       | Yonkers, NY           | Carol Grad             | Rochester, NY     |
| Midori Furutate      | New York, NY          | Peter Gradoni          | Alfred, NY        |
| Diane Gaertner       | Commack, NY           | Sirena Green           | Kingston, NY      |
| Nora Gaines          | New York, NY          | Jennifer Greenidge     | Olean, NY         |
| Natalie Galazka      | New York, NY          | Pamylle Greinke        | Peconic, NY       |
| Juanita Garcia       | Hauppauge, NY         | Ruth Griffiths         | Shenectady, NY    |

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|-------------------|-------------------------------|-------------------|--------------------------|
| Eve Grissinger    | Brooklyn, NY                  | Aaron Hetcher     | Rochester, NY            |
| Rita Grolitzer    | New York, NY                  | Lawrence Hilf     | Rochester, NY            |
| Patrick Grow      | Yonkers, NY                   | Ellen Hillander   | Schenectady, NY          |
| Richard Guier     | New York, NY                  | Marianne Hines    | Saranac Lake, NY         |
| Doreen Guijarro   | Port Jefferson Station,<br>NY | Carol Hinkelman   | Rochester, NY            |
| Susan Guma        | Bronxville, NY                | Mark Hochman      | Ossining, NY             |
| Jaime Gustafson   | Greenfield Center, NY         | Jim Hochstetler   | New York, NY             |
| Pamela Guyon      | Rochester, NY                 | Jane Hoffman      | New York, NY             |
| Lourdes Guzman    | South Ozone Park, NY          | Paul Hofheins     | Town Of Tonawanda,<br>NY |
| Vik H             | Astoria, NY                   | Tom Hohn          | Ithaca, NY               |
| Shewit Hadera     | New York, NY                  | Rondane Hollar    | Bronx, NY                |
| Laura Hahn        | Syracuse, NY                  | Mark Hollinrake   | New York, NY             |
| Cory Hall         | Clifton Park, NY              | Debi Holt         | Holley, NY               |
| Sarah Hamilton    | Canastota, NY                 | Randy Holtz       | Buffalo, NY              |
| Carol Hammond     | Averill Park, NY              | Teresa Hommel     | New York, NY             |
| Ian Hannon        | great neck, NY                | Jan Hoogenboom    | Ridgewood, NY            |
| Michael Harlan    | New York, NY                  | Phillip Hope      | New York, NY             |
| Julie Harrell     | Cherry Plain, NY              | Stephen Hopkins   | Rye, NY                  |
| Perry Harris      | Chester, NY                   | Lee Horowitz      | Staatsburg, NY           |
| Daniel Harris     | Medford, NY                   | Desmond Hosford   | Brooklyn, NY             |
| Cynthia Hart      | Cuylar, NY                    | Raymond Howard    | Geneva, NY               |
| Cindy Hartnagel   | Port Jefferson Station,<br>NY | Michael Howard    | Far Rockaway, NY         |
| Terry Hasan       | Brooklyn, NY                  | Amelia Hoy        | Brooklyn, NY             |
| Gerald Hassett    | SunNew Yorkside, NY           | Isabelle Hsiao    | Rochester, NY            |
| Kathy Haverkamp   | geneva, NY                    | Kara Huberman     | Brooklyn, NY             |
| Murray Head       | New York, NY                  | Volha Hudyno      | Brooklyn, NY             |
| Brian Head        | Albany, NY                    | Glenn Hufnagel    | Buffalo, NY              |
| Michael Healy     | New York, NY                  | Lisa Hunkler      | Merrick, NY              |
| Donna Heath       | Brasher Falls, NY             | Sarah Hunnewell   | Water Mill, NY           |
| Diane Hedley      | Ballston Spa, NY              | Rehana Huq        | Ithaca, NY               |
| Joshua Heffron    | New York, NY                  | Michael Hynes     | Ossining, NY             |
| Joshua Heffron    | New York, NY                  | John Iavarone     | Albany, NY               |
| Elizabeth Hegeman | New York, NY                  | Stefanka Ilieva   | Woodmere, NY             |
| Lynann Heilman    | Babylon, NY                   | Mike Inganamort   | Hauppauge, NY            |
| Philip Hembury    | Schenectady, NY               | Nina Insardi      | Rye, NY                  |
| Donald Henderson  | Ithaca, NY                    | Denise Insinga    | Lindenhurst, NY          |
| Heloisa Henriques | New York, NY                  | Corinne Italiano  | Lynbrook, NY             |
| Claudio Henriques | New York, NY                  | Harold Jacobowitz | New York, NY             |
| John Herrera      | Bronx, NY                     | Leonard Jacobs    | Lattingtown, NY          |
| Suze Hersh        | New Paltz, NY                 | Kathleen Jacobsen | Youngstown, NY           |
| Janet Hershberger | Pine Bush, NY                 | Mark Jacquinet    | Schenectady, NY          |
|                   |                               | Omid Jafarzadeh   | Flushing, NY             |

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|------------------|----------------------|-----------------------|----------------------|
| Bev Jafek        | Beacon, NY           | Sun Hae Kim           | Flushing, NY         |
| Stan Janczuk     | Bronx, NY            | Kari Sue King         | Canajoharie, NY      |
| Stan Janczuk     | Bronx, NY            | Douglas Kinney        | Oneonta, NY          |
| Ray Jasinski     | Bohemia, NY          | Elizabeth Ann Kirby   | Highland, NY         |
| Rita Jaskowitz   | Brooklyn, NY         | Laurence Kirby        | Woodstock, NY        |
| Alice Jena       | Richmond Hill, NY    | Thomas Kirk           | Palenville, NY       |
| Maribel Jerez    | Bronx, NY            | Thomas Kitchen        | New York, NY         |
| Maureen Jessnik  | Syosset, NY          | M Klein               | New York, NY         |
| Theresa Johnson  | New York, NY         | Serena Klempin        | Cold Spring, NY      |
| Michele Johnson  | Yorktown Heights, NY | Gerald Kline          | New York, NY         |
| D Johnson        | East Syracuse, NY    | Nicole Knauber        | Depew, NY            |
| Lara Johnson     | New York, NY         | William Knauber       | Cheektowaga, NY      |
| Jamie Johnson    | New York, NY         | Oliver Emmett Knox    | Syracuse, NY         |
| Julianne Jones   | Warwick, NY          | Stephanie Kob         | New York, NY         |
| Ally Jones       | Brooklyn, NY         | Kimberly Koenig       | Henrietta, NY        |
| Blanche Jones    | Mechanicville, NY    | Ron Koerner           | Kings Park, NY       |
| Elizabeth Jones  | Mill neck, NY        | Matthew Kogut         | Bohemia, NY          |
| Kasey Jueds      | Shokan, NY           | Eila Kokkinen         | Saugerties, NY       |
| Donna Juriga     | Harpursville, NY     | Karen Konopa          | Warwick, NY          |
| Susan K          | Franklin, NY         | David Kornreich       | Syracuse, NY         |
| Mo Kafka         | Albany, NY           | Jill Kortright        | Newburgh, NY         |
| Jessica Kahler   | Brooklyn, NY         | Christopher Koslovsky | Huntington, NY       |
| Alistair Kanaan  | hong kong, NY        | Gillian Kostek        | Lancaster, NY        |
| Stephen Karnisky | Rochester, NY        | Teresa Kotturan       | New York, NY         |
| Joe Karr         | Middletown, NY       | Laura Koulish         | New York, NY         |
| Ruka Kato        | Jackson Heights, NY  | James M Kozlik        | Jackson Heights, NY  |
| Annie Katzman    | New York, NY         | Diane Kraft           | Lewiston, NY         |
| Carole Kaye      | Malden On Hudson, NY | Al Krause             | New YorkC, NY        |
| Gabrielle Kayser | Hicksville, NY       | Laura Kremer          | Williamson, NY       |
| Alix Keast       | New York, NY         | John Krevitt          | Brooklyn, NY         |
| Lynn Kelly       | New York, NY         | Mj Kribs              | Corinth, NY          |
| Cathleen Kelly   | Patchogue, NY        | John Kristofik        | Bronx, NY            |
| Amanda Kelly     | Massapequa Pk, NY    | Sylwia Kruszewska     | Maspeth, NY          |
| Colleen Kennedy  | New York, NY         | Donna Ksczanowicz     | Rochester, NY        |
| Betsy Kennedy    | Mattituck, NY        | Donna Kubina          | Schenectady, NY      |
| Dwight Kennedy   | Buffalo, NY          | Cara Kulwicki         | Rochester, NY        |
| Karl Kernehan    | Alexandria Bay, NY   | Nancy Kyriacou        | New York, NY         |
| Jessica Kerr     | Woodstock, NY        | Miriam Lacher         | Poughkeepsie, NY     |
| Jesse Kessler    | New York, NY         | Mjlo Lagatta          | Grand Island, NY     |
| Norma Khan       | Astoria, NY          | Sarah Lagnado         | Brooklyn, NY         |
| Victoria Khazzam | Purchase, NY         | Mary Lahovitch        | Deer Park, NY        |
| Caroline Kilbane | Bay Shore, NY        | Marion Lakatos        | Croton On Hudson, NY |
| Tom Kilminster   | Tonawanda, NY        | Leticia Lamagna       | Brooklyn, NY         |

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| Susan Lamanna Verzulli | Broadalbin, NY       | Sharon Longyear     | Yorktown Heights, NY |
| Rebecca Lamoreaux      | Kingston, NY         | Mary Loomba         | Valhalla, NY         |
| Francine Lane          | Amagansett, NY       | M Lopez             | Yonkers, NY          |
| Judy Lasko             | New York, NY         | Wayne Loprete       | Cortlandt Manor, NY  |
| Donald Lathrop         | Canaan, NY           | Christopher Lord    | Brentwood, NY        |
| Jennifer Latorre       | bellerose, NY        | Sandy Lorenzo       | Forest Hills, NY     |
| Kim Laudati            | Floral Park, NY      | Victoria Loudis     | Douglaston, NY       |
| Joseph Lawson          | New York, NY         | Suzanne Louer       | Shelter Island, NY   |
| Liz Lazar              | Great Neck, NY       | Kathleen Loughlins  | Bay Shore, NY        |
| Claire Leavitt         | Ithaca, NY           | David Lowe          | New York, NY         |
| Laraine Lebron         | Utica, NY            | Jeannine Lowenkron  | Washingtonville, NY  |
| Brenda Lee             | Wappingers Falls, NY | Candice Lowery      | Mount Vernon, NY     |
| Joy Leet               | Stanley, NY          | Erika Luchterhand   | New York, NY         |
| Claudia Leff           | Mamaroneck, NY       | Carlos Luna         | New York, NY         |
| Eric Lehman            | New York, NY         | Karen E Lund        | Staten Island, NY    |
| Becki Leigh            | New York, NY         | Martin Lupowitz     | Ulster Park, NY      |
| Aidan Leitch           | Chappaqua, NY        | Daniel Lutzker      | New York, NY         |
| Ronald Lemmert         | Peekskill, NY        | Margaret Lyons      | Lynbrook, NY         |
| B. R. Lemonik          | Mahopac, NY          | Susan Maderer       | New York, NY         |
| Dena Lenard            | New York, NY         | Sarah Mahar         | New York, NY         |
| Donna Lenhart          | Poughkeepsie, NY     | Liz Mahony          | New York, NY         |
| Susan Leonard          | New York, NY         | Julia Mair          | New York, NY         |
| Kenny Lerner           | Geneseo, NY          | Heather Mallow      | Scarsdale, NY        |
| Mara Leverett          | New York, NY         | William Malmros     | Ballston Spa, NY     |
| Emanuela Levin         | Rochester, NY        | Evelyn Malone       | Amherst, NY          |
| Jonathan Levine        | Brooklyn, NY         | Fran Malsheimer     | Lindenhurst, NY      |
| Judith Levinton        | Brooklyn, NY         | Rosanne Mamo        | Wantagh, NY          |
| Marcia Lewin           | New York, NY         | Cave Man            | New York, NY         |
| Astara Light           | Ithaca, NY           | Leslie Mankes       | Brooklyn, NY         |
| Glenda Lilling         | Port Chester, NY     | Robert Manning      | Johnsburg, NY        |
| Robin Lim              | New York, NY         | Grace Mannweiler    | Albany, NY           |
| Elaine Linet           | New York, NY         | Claudia Mansbach    | Kingston, NY         |
| Donna Robin Lippman    | New York, NY         | Mark Mansfield      | Geneva, NY           |
| Paul S. Lipton         | Brooklyn, NY         | P Mar               | Brooklyn, NY         |
| Cynthia Liss           | Brooklyn, NY         | Heather Marcus      | Staten island, NY    |
| Cathy Loewenstein      | Babylon, NY          | Cathy Marczyk       | Highland Mills, NY   |
| Patricia Loftman       | New York, NY         | Kathleen Margulis   | Brookhaven, NY       |
| Michael Logan          | Pine Hill, NY        | Valerie Marini      | Bronxville, NY       |
| Arlene Lokomowitz      | Brooklyn, NY         | Darian Mark         | New York, NY         |
| Robert Lombardi        | Brooklyn, NY         | John Markowitz      | New York, NY         |
| Sheena Lonecke         | Elizaville, NY       | Tracy Marotta       | Brooklyn, NY         |
| Deborah Long           | Kenmore, NY          | Christine Marquette | Monticello, NY       |
| Dawn Longo             | Staten Island, NY    | Corinne Marrone     | Centereach, NY       |

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| Diane Martella        | New York, NY         | Chantel Mitchell     | Brooklyn, NY         |
| R Martire             | New York, NY         | Leslie Mlawski       | Woodmere, NY         |
| Carl Mason            | Peekskill, NY        | Mary Moderacki       | New York, NY         |
| Franklin Matias       | Brooklyn, NY         | Mark Molloy          | Brooklyn, NY         |
| Patricia Matteson     | High Falls, NY       | Rai Montalvo         | Ozone Park, NY       |
| Larissa Matthews      | New York, NY         | Pallavi Moorthy      | Armonk, NY           |
| Claudio Mattos        | New York, NY         | Mario Morales        | Bronx, NY            |
| Heloisa Mattos        | New York, NY         | Dakin Morehouse      | Phoenicia, NY        |
| Jennifer Maurizzio    | Narrowsburg, NY      | Ilana Morris         | Eastchester, NY      |
| Christine Maxwell     | Hamlin, NY           | T Morrison           | Island Park, NY      |
| Maria Mazzacane       | Pittsford, NY        | Samuel Morrison      | Livingston Manor, NY |
| Michael Mc Carthy     | Poughkeepsie, NY     | Mariana Morse        | Brooktondale, NY     |
| Mary Mccoy            | Fayetteville, NY     | Janet Moser          | Baldwin, NY          |
| Marley Mcdermott      | Whitestone, NY       | Maryanna Moskal      | Buffalo, NY          |
| Mary Ann Mcdonough    | Otisville, NY        | Erik Moss            | Cambria Heights, NY  |
| Ellis Mcdowell-Loudan | Mc Graw, NY          | Aaron Moulin         | Elmhurst, NY         |
| Chris Mcginn          | New York, NY         | Susan Alice Mufson   | New York, NY         |
| Susan MCGraw - Keber  | East Hampton, NY     | Marianne Mukai       | Delhi, NY            |
| Stacey Mcisaac        | Buffalo, NY          | James Mulder         | Wappingers Falls, NY |
| Alan Mcknight         | Willow, NY           | Robert Munro         | New York, NY         |
| Elizabeth Mcleod      | Rockville Centre, NY | Debra Murphy         | Little Neck, NY      |
| Reginalena Mcmanus    | Rockaway Park, NY    | Ellen Murphy         | Bronx, NY            |
| Tab Mcq               | Southold, NY         | Susan J Murphy       | Saugerties, NY       |
| Carlene Meeker        | New York, NY         | Michael Muscato      | Ballston Spa, NY     |
| Eva Melas             | Brooklyn, NY         | Larry Musson         | Rochester, NY        |
| Jayne Merkel          | New York, NY         | Carol Myers          | Oceanside, NY        |
| Neil Merrick          | Brooklyn, NY         | J N                  | New York, NY         |
| Joanne Metzler        | Rochester, NY        | Sandra Naidich       | Brooklyn, NY         |
| Susan Meyer           | New York, NY         | John Najemy          | Albany, NY           |
| Gail Meyer            | Saranac Lake, NY     | S Nam                | New York, NY         |
| Jay Michael           | New York, NY         | Jean Naples          | Suffern, NY          |
| Pedro Mier            | Jackson Heights, NY  | Karen Napolitano     | Schenectady, NY      |
| John Miller           | Brooktondale, NY     | Lisa Nardi           | Port Washington, NY  |
| Jeffrey Miller        | New York, NY         | Margot Natalecercone | Selden, NY           |
| Eileen Miller         | New York, NY         | Andrea Neal          | Cortland, NY         |
| Lynn Miller           | Slingerlands, NY     | Judith Nemzer        | Jackson Heights, NY  |
| Matthew Miller        | Bay Shore, NY        | Ted Neumann          | Altamont, NY         |
| Judy Miller-Lyons     | Highland Mills, NY   | Paula Neville        | Rochester, NY        |
| Robert Minnick        | Greenlawn, NY        | Miriam Newman Cruz   | Smithtown, NY        |
| Lori Miranda          | Cortlandt Manor, NY  | Mrs. Won Ng          | Dix Hills, NY        |
| Maria Miranda         | Brooklyn, NY         | Jinn Ngo             | Brooklyn, NY         |
| Dragana Mirkovic      | New York, NY         | Peter Nicholas       | Syracuse, NY         |
| Stephen Mitchell      | Newark, NY           | Jill Nicholas        | Penfield, NY         |

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|-----------------------|---------------------|-----------------------|-----------------------|
| Robert Nichols        | New York, NY        | Laura J Peskin        | Mamaroneck, NY        |
| Sara Niego            | Jamaica, NY         | Elizabeth Peterson    | Cortlandt Manor, NY   |
| Derinda Nilsson       | Utica, NY           | Robert Petito         | New York, NY          |
| Dianne Noblett        | Mechanicville, NY   | Mark Pezzati          | Andes, NY             |
| Darrell Noel          | New York, NY        | Richard Pfeiffer      | Buffalo, NY           |
| Mike Nofi             | Bethpage, NY        | James Pfitzner        | Lagrangeville, NY     |
| Sean Nolan            | Brooklyn, NY        | Terry Phelan          | Albany, NY            |
| S Norris              | New York, NY        | Marlene Phelan        | StoNew York Point, NY |
| Michael Noyes         | Schuylerville, NY   | Maura Phillips        | Le Roy, NY            |
| Sue Nuccio            | Syracuse, NY        | Diane Phillips        | Bedford Hills, NY     |
| Alix Nunez            | New York, NY        | Richard Picone        | Brooklyn, NY          |
| Emily Oaks            | Sterling, NY        | Judith Pierri         | Oakland Gardens, NY   |
| Kathy Oberther        | Elmira, NY          | Carolyn Clark Pierson | Treadwell, NY         |
| August Oberti         | Staten Island, NY   | Thomas Pintagro       | Jamestown, NY         |
| Victoria Obrien       | Ridgewood, NY       | Lisa Pisano           | Brooklyn, NY          |
| Daniel Obrien         | Milton, NY          | Elizabeth Pixley      | Pittsford, NY         |
| David Ogrady          | Schenectady, NY     | Lynda Pizer           | New York, NY          |
| Josie Olive           | Brooklyn, NY        | Jessica Plotnick      | Mount Kisco, NY       |
| Pamela Joan Olsen     | Southampton, NY     | Heather Plunkett      | Brooklyn, NY          |
| Sheila Oneill         | Poughkeepsie, NY    | Hertha L. Poje        | New York, NY          |
| Joan O'Neill          | Brooklyn, NY        | Jane Poklemba         | Loudonville, NY       |
| Isabella Ornaf        | Bronxville, NY      | Rose Polis            | Massapequa Park, NY   |
| Cory Orosz            | Albany, NY          | Jack Polonka          | Peekskill, NY         |
| Kevin Orourke         | Camden, NY          | Esperanza Porrero     | Nueva York, NY        |
| Sharon Osika-Michales | Skaneateles, NY     | Gloria Potiah         | LINDENHURST, NY       |
| Nils Osterberg        | Harrison, NY        | John Prance           | Walton, NY            |
| Joseph Osullivan      | Flushing, NY        | Diana Praus           | Menands, NY           |
| Patti Ouderkirk       | Astoria, NY         | Claudette Preisinger  | Medford, NY           |
| Jacqueline Palumbo    | Oyster Bay, NY      | Dee Preslik           | Hopewell Junction, NY |
| S Paren               | Whitestone, NY      | Dee Preslik           | Hopewell Junction, NY |
| Chris Partisano       | Latham, NY          | Melissa Pressimone    | Bronx, NY             |
| Charlotte Pass        | Cortland, NY        | Beth Prewitt          | Rochester, NY         |
| Rita Patterson        | Franklin Square, NY | Lauren Price          | New Rochelle, NY      |
| Sergio Pavon          | New York, NY        | Chris Proctor         | New York, NY          |
| Victoria Pawlick      | Williamson, NY      | Candela Prol          | Far Rockaway, NY      |
| Michele Paxson        | East Meadow, NY     | Nancy Prowell         | Honeoye, NY           |
| Greg Paxton           | New York, NY        | John Prybylski        | Buffalo, NY           |
| Ene Pe                | Newyork, NY         | Nicholas Prychodko    | Bridgehampton, NY     |
| Pippa Pearthree       | Brooklyn, NY        | Ron Przybycien        | Carmel, NY            |
| Audrey Peltz          | Syosset, NY         | Pete Puc              | Brooklyn, NY          |
| Andrea Pennisi        | New York, NY        | Robert Puca           | Brooklyn, NY          |
| Phyllis Perna         | Westport, NY        | Laurie Puca           | New City, NY          |
| Betty Perry           | New Yorkack, NY     | Bill Purdue           | New Yorkack, NY       |



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| Scott Purificato        | Peekskill, NY        | Emmet Ryan           | Floral Park, NY      |
| Donald Quarles          | Montgomery, NY       | Wendy Ryden          | Oyster Bay, NY       |
| Joseph Quirk            | New York, NY         | Lois S               | New York, NY         |
| Monica Rangne           | New York, NY         | Keith Sabin          | New York, NY         |
| Lisle Raught            | Port Crane, NY       | Jerilyn Sackler      | New York, NY         |
| Timothy Raymond         | Rochester, NY        | Ayako Saito          | Jackson Hts, NY      |
| Carol Rea               | Syracuse, NY         | Myrna Sak            | Saratoga Springs, NY |
| Hamilton Regen          | Brooklyn, NY         | Cecilia Salama       | New York, NY         |
| Sarah Reiner            | Saint Albans, NY     | Jane Salgado         | Bellerose, NY        |
| Marge Remmich           | New York City, NY    | Sandra Saltzer       | Shortsville, NY      |
| Edward Rengers          | Woodstock, NY        | David Samer          | Brockport, NY        |
| Beverly Rice            | New York, NY         | Lorraine Sanchez     | New York, NY         |
| Sara Rice               | New York, NY         | Rose Sanchez         | New York, NY         |
| Tamar Richards          | SunNew Yorkside, NY  | Wilfredo R. Santiago | Brooklyn, NY         |
| Greg Rieves             | Dobbs Ferry, NY      | Susan Santilli       | Westbury, NY         |
| Javier Rivera           | Brooklyn, NY         | Diana Sanzone        | Brooklyn, NY         |
| Javier Rivera           | Brooklyn, NY         | Mark Sarnacki        | Troy, NY             |
| Antonio Rivera          | Woodside, NY         | Vincent Sarnicola    | Long Beach, NY       |
| Carol Rivers            | Adams Center, NY     | Cathy Saunders       | Lockport, NY         |
| William Roberson        | Brooklyn, NY         | Kitty Savage         | Tillson, NY          |
| Iris Rochkind           | Flushing, NY         | Michael Savage       | New York, NY         |
| Soretta Rodack          | New York, NY         | Frances Saykaly      | New York, NY         |
| Sylvia Rodriguez        | New York, NY         | Elena Schaeff        | Kingston, NY         |
| Ana Laura Rodriguez     | New York, NY         | Millie Schaefer      | Monroe, NY           |
| Marilyn Rodwin          | Buffalo, NY          | Suzanne Schaem       | New York, NY         |
| Jo Roehrig              | cincinnati, NY       | Myra Schechtman      | New York, NY         |
| Barrie Rolleston-Daines | Ithaca, NY           | Nancy Scheck         | Scarsdale, NY        |
| Sarah Rose              | Coram, NY            | Nancy Scheck         | Scarsdale, NY        |
| Jayne Rosenberg         | New York, NY         | Fred Schloessinger   | Great Neck, NY       |
| Gj Rosenberg            | New York, NY         | Hilary Schuddekopf   | Halfmoon, NY         |
| Kenneth Rosenblad       | Brooklyn, NY         | Robert Schuessler    | Tonawanda, NY        |
| David Rosenfeld         | Brooklyn, NY         | Nancy Schulman       | Long Beach, NY       |
| Mimi Rosenfeld          | Brooklyn, NY         | Cindy Schultz        | Seaford, NY          |
| Amy Rosmarin            | North Salem, NY      | Jane Schur           | Rochester, NY        |
| Ellen Ross              | New York, NY         | Arthur Schurr        | Brooklyn, NY         |
| Susan Rothman           | Bronx, NY            | Henry Schwartzman    | CORNING, NY          |
| Cathy Rowan             | Bronx, NY            | Veronica Schweyen    | Croton On Hudson, NY |
| Nia Royal               | Brooklyn, NY         | Jen Scibetta         | Cheektowaga, NY      |
| Helena De Vengoechea    | Rudd Pound Ridge, NY | Arlene Scovotti      | Scarsdale, NY        |
| Charles Ruiz            | Middletown, NY       | Anthony Scrimenti    | Albany, NY           |
| Samantha Ruiz           | Lockport, NY         | Constance Scudder    | Potsdam, NY          |
| Vincent Rusch           | Schenectady, NY      | Kevin Scutt          | Fishkill, NY         |
| Susan Kiss Russo        | New York, NY         | Linda Seaver         | Germantown, NY       |

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|-------------------------|----------------------|----------------------|--------------------|
| Emily Seay              | Brooklyn, NY         | Alla Sobel           | New York, NY       |
| Michael Seckendorf      | Carmel, NY           | Alissa Sollitto      | Endicott, NY       |
| Ljubica Sefer-Stefancic | New York, NY         | Diane Solomon        | Ocean Beach, NY    |
| Alejandro Serrano       | New York, NY         | Amy Soloway          | Brooklyn, NY       |
| Harriet Shalat          | Forest Hills, NY     | Ronald Sonnenberg    | Middleport, NY     |
| Jack Shapiro            | New York, NY         | Veronica Sousa       | Brooklyn, NY       |
| Denise Shapiro          | Selden, NY           | Elisabeth Spaeth     | New York, NY       |
| Geralyn Shea            | Ionia, NY            | Coree Spencer        | New York, NY       |
| Roger Sherman           | Schuylerville, NY    | Stephen Spicehandler | New York, NY       |
| Dave Sherman            | Flushing, NY         | Alexa Spiegel        | New York, NY       |
| Lisa Sherman            | East Concord, NY     | Robin Spiegelman     | Queens Village, NY |
| Boyce Sherwin           | Malone, NY           | Jennifer Spirakis    | Plainview, NY      |
| Colleen Shetland        | Marcellus, NY        | Judith Spreitzer     | Walden, NY         |
| Aron Shevis             | Brooklyn, NY         | Jean Standish        | New York, NY       |
| Juli Shields            | Conklin, NY          | Michele Stanger      | Brooklyn, NY       |
| Marguerite Shinouda     | New Paltz, NY        | John Stanton         | Macedon, NY        |
| Charles Shoemaker       | Middleburgh, NY      | William Staples      | Boiceville, NY     |
| Adele Shtern            | Long Island City, NY | Robert Stayman       | New York, NY       |
| Vicki Shulof            | New Lebanon, NY      | Fern Stearney        | Tarrytown, NY      |
| Khalid Siddiqui         | Fredonia, NY         | Adam Stein           | Rochester, NY      |
| Melvin Siegel           | Flushing, NY         | Veronica Stein       | Brooklyn, NY       |
| Lori Siemian            | Ballston Lake, NY    | Alrun Steinrueck     | Brooklyn, NY       |
| Laura Silverman         | West New Yorkack, NY | Dorothy Sterlace     | Lackawanna, NY     |
| Beatrice Simmonds       | Bronx, NY            | Richard Stern        | New York, NY       |
| Yvonne Simmons          | Brooklyn, NY         | James Sterner        | New York, NY       |
| Claudio Simoes          | New York, NY         | Emily Stewart        | Delmar, NY         |
| John Simone             | Bronx, NY            | Lisa Stimpson        | Brooklyn, NY       |
| Harry Singer            | New York, NY         | Michael Stocker      | New York, NY       |
| Tamira Sinicropi        | Amsterdam, NY        | Helene Stoller       | New York, NY       |
| Gerald Sircus           | Goldens Bridge, NY   | Susanna Stone        | Middle Island, NY  |
| Stacey Skole            | New York, NY         | Susan Storch         | Saranac Lake, NY   |
| Kate Skolnick           | Brooklyn, NY         | Laurie Storm         | Buffalo, NY        |
| Lynn Slonaker           | Pawling, NY          | Claudine Strazza     | New York, NY       |
| Karen Slote             | North Tonawanda, NY  | Marija Stroke        | New York, NY       |
| Helen Smart             | New York, NY         | Cristin Sturchio     | New York, NY       |
| Joy Smiley              | Levittown, NY        | David Suarez         | Brooklyn, NY       |
| S Smith                 | Sound Beach, NY      | David Suarez         | Brooklyn, NY       |
| Marsha Smith            | Dryden, NY           | Jess Summers         | Cohoes, NY         |
| Karin Smith-Spanier     | Kingston, NY         | Peter Sutherland     | Fort Ann, NY       |
| Amanda Smock            | Kingston, NY         | Rachel Swallowood    | Astoria, NY        |
| Mark Smyth              | Bluff Point, NY      | Rebecca Swan         | Carmel, NY         |
| Sandy Sobanski          | Brooklyn, NY         | Mara Swaney          | Averill Park, NY   |
| Sandra Sobanski         | Brooklyn, NY         | Bill Sykes           | Beacon, NY         |

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|------------------------|----------------------|-----------------------|----------------------------|
| Sandra Taggart         | Brooklyn, NY         | Sandra Vadhin         | Ithaca, NY                 |
| Herbert Tamayo         | Kew Gardens, NY      | Leslie Valentine      | Huntington Station, NY     |
| Ko Tanaka              | Brooklyn, NY         | Jennifer Valentine    | Massapequa Park, NY        |
| MI Tarolli             | Hannibal, NY         | Laura Van Boerum      | New York, NY               |
| Connie Tate            | New York, NY         | Matthew Vanbrocklin   | Harrisville, NY            |
| Laura Taylor           | Brooklyn, NY         | Chattie Vanwert       | Hague, NY                  |
| Jenifer Taylor         | Halfmoon, NY         | Brigid Vele           | East Patchogue, NY         |
| Patricia Taylor        | Poughkeepsie, NY     | Grace Vendemio        | Staten Island, NY          |
| Allan Tedesco          | Irving, NY           | Carol Vericker        | Spring Valley, NY          |
| Scott Teel             | Ithaca, NY           | Margaret Vernon       | Fonda, NY                  |
| Edward And Gail Temple | Brooklyn, NY         | Michael Villanova     | Niskayuna, NY              |
| Lynne Teplin           | Bronxville, NY       | Janine Vinton         | Albany, NY                 |
| Ela Thomas             | Brooklyn, NY         | Nick Vivian           | New York, NY               |
| Karen Thomas           | Garden City, NY      | Chrisanthos Vlasiadis | Port Jefferson Station, NY |
| Terrence Thompson      | Jamaica, NY          |                       |                            |
| Mary Thorpe            | Van Etten, NY        | Barbara Voros         | North Bellmore, NY         |
| Samuel Thorpe          | Woodstock, NY        | Adam Vrbanic          | Brooklyn, NY               |
| Doreen Tignanelli      | Poughkeepsie, NY     | Valerie Vullo         | Clarence, NY               |
| Terri Tillinghast      | Valley Cottage, NY   | M W                   | Tillson, NY                |
| James. Yvonne Tittle   | Bronx, NY            | Angela W              | Rochester, NY              |
| Mary Tober             | Lancaster, NY        | Fern Wachtel          | New York, NY               |
| Mary Anne Tokar        | Baldwinsville, NY    | Kimberly Wade         | Malverne, NY               |
| Dale Tomlinson         | Phoenix, NY          | Pat Wadlington        | Black River, NY            |
| Krista Topp            | Endicott, NY         | Ray Wager             | Middlesex, NY              |
| Rebeca Torres-Rose     | Cambridge, NY        | Diana Walling         | New Berlin, NY             |
| David Trask            | Buffalo, NY          | Dorothy Walsh         | Vestal, NY                 |
| Patty Traube           | Centereach, NY       | Rachael Walsh         | Mongaup Valley, NY         |
| Galen Trembath         | Long Island City, NY | Bob Walters           | New York, NY               |
| Myrella Triana         | New York, NY         | Peter Ward            | Smithtown, NY              |
| Michael Trimble        | Rhinebeck, NY        | Miriam Warwick        | New York, NY               |
| Margaret Troche        | New York, NY         | Chris Washington      | New York, NY               |
| Mary Troland           | Oceanside, NY        | Carol Waterman        | Albany, NY                 |
| Demetra Tsantes        | Poughkeepsie, NY     | Bonnie Watson         | Baldwinsville, NY          |
| Alexandra Tumarkin     | White Plains, NY     | Kathryn Wayler        | BROOKLYN, NY               |
| Heather Turbush        | Wading River, NY     | Sharon Webb           | Amenia, NY                 |
| Tara Turkey            | Brooklyn, NY         | Patti Weinberg        | Sag Harbor, NY             |
| Katharine Tussing      | Buffalo, NY          | Lee Weingast          | Croton On Hudson, NY       |
| Patricia Tweedy        | Floral Park, NY      | Judith Weis           | East Hampton, NY           |
| Carl Tyndall           | Brooklyn, NY         | Jennifer Weisedel     | Amherst, NY                |
| James Upson            | Orchard Park, NY     | David Wells           | Mattituck, NY              |
| Eddie Utrata           | Rochester, NY        | Marilyn Welsher       | Williston Pprk, NY         |
| Giancarlo Vacca        | North Massapequa, NY | Rob Weltner           | Freeport, NY               |
| Lori Vaccaro           | Bronx, NY            | Ellen Wertheim        | Rockaway Park, NY          |

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|------------------------------|--------------------|------------------------|---------------------|
| Lorraine West                | Pine Bush, NY      | Deborah Zerden         | New York, NY        |
| Marc Westler                 | Flushing, NY       | John Michael Zervoulei | New York, NY        |
| Aim Wh                       | Bedford Hills, NY  | Andrea Zinn            | Brooklyn, NY        |
| Veronica Whaley              | Brooklyn, NY       | Arlene Zuckerman       | Forest Hills, NY    |
| David Wheeler                | North Syracuse, NY | Elizabeth Zumchak      | Utica, NY           |
| Kirsten White                | Albany, NY         | Jodie Zupancic         | Flushing, NY        |
| Angelica Whitefeather        | New York, NY       | Daniel Adams           | Leland, NC          |
| Suzanne Wiegand              | Shirley, NY        | Lawrence Adrian        | Durham, NC          |
| Linda Wilkinson              | Fresh Meadows, NY  | Linda Allen            | Cornelius, NC       |
| Augie Williams               | Buffalo, NY        | Linda Allind           | New Bern, NC        |
| Daniel Willner               | Katonah, NY        | Tanya Alstott          | Weaverville, NC     |
| Sherita Wilson               | Buffalo, NY        | Vicki Applegate        | Hickory, NC         |
| Rose Marie Wilson            | Wantagh, NY        | Christine Arends       | Pinehurst, NC       |
| Richard Wilson               | Norwich, NY        | Debra Arno             | Mooreville, NC      |
| Judith Wilson                | Brooklyn, NY       | Jennifer Ayers         | Wilmington, NC      |
| Therese Wilson               | Grand Island, NY   | Jori Baker             | Hendersonville, NC  |
| Jared Windus                 | Brooklyn, NY       | Donald Barker          | Southern Shores, NC |
| Stanley Wine                 | New York, NY       | Linda Sue Barnes       | Wade, NC            |
| Erich Winkler                | New York, NY       | Mae Basye              | fuquay Varina, NC   |
| Mary Winters                 | New York, NY       | Keith Bates            | Reidsville, NC      |
| Danielle Wish                | New York, NY       | Ruth Bauer             | Hendersonville, NC  |
| Andrew & Kathleen Wittenborn | Pleasantville, NY  | Diane Beck             | Asheville, NC       |
| Valentine Wolfe              | Canandaigua, NY    | Bruce Beerbower        | Hickory, NC         |
| Rachel Wolfe                 | Clinton, NY        | Jon Begeson            | Wilson, NC          |
| Va Euwer Wolff               | Rhinebeck, NY      | James Bengel           | Wendell, NC         |
| Peter Wood                   | Cornwall, NY       | Stephanie Benson       | Summerfield, NC     |
| M Worrell                    | Canandaigua, NY    | Don Bergey             | Winston Salem, NC   |
| S Wraight                    | Ithaca, NY         | Cynthia Bernett        | Concord, NC         |
| Richard Wright               | Ulster Park, NY    | Alex Blaine            | Charlotte, NC       |
| Catherine Wright             | New York, NY       | Jeffery Blanton        | Cherryville, NC     |
| Sandy Wu                     | Brooklyn, NY       | Thomas Blanton         | Granite Falls, NC   |
| William Wurtz                | New York, NY       | Kristen Boddy          | Asheville, NC       |
| Julianne Yao                 | Brooklyn, NY       | Dwight Bodycott        | Charlotte, NC       |
| Erin Yarrobino               | Ozone Park, NY     | Jeff Bohan             | Winston Salem, NC   |
| Susan Yerry                  | Schuylerville, NY  | Larry Bohs             | Durham, NC          |
| Roberta Young                | White Plains, NY   | Stephen Boletchek      | Apex, NC            |
| Marie Young                  | New Paltz, NY      | Emilie Booker          | Charlotte, NC       |
| J. A Young                   | Ithaca, NY         | Natasha Borowiak       | Winston Salem, NC   |
| Oliver Yourke                | Brooklyn, NY       | Susan Borys            | Greensboro, NC      |
| Walter Zamora                | Montauk, NY        | Ken Bosch              | Raleigh, NC         |
| Abigail Zealey Bess          | New York, NY       | Wanda Boyd             | Charlotte, NC       |
| Mary Lou Zeis                | Hamburg, NY        | Jayne Boyer            | Durham, NC          |
| Robert Zeller                | Lindenhurst, NY    | Eloise Bradham         | Asheville, NC       |

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| Amanda Brewer          | Orrum, NC              | Al Daniel             | Durham, NC           |
| Kristen Britt          | Fayetteville, NC       | Joan Davidson         | Chapel Hill, NC      |
| Kim Brower             | Asheboro, NC           | Liz Davis             | Brevard, NC          |
| Bob Brower             | Hillsborough, NC       | Robin Davis           | Greensboro, NC       |
| Elaine Brown           | Hampstead, NC          | Jane Decoursey        | Emerald Isle, NC     |
| Robert Brown           | Angier, NC             | Caroline Deegan       | Chapel Hill, NC      |
| Sally Buchanan         | Caswell Beach, NC      | James Degrave         | Arden, NC            |
| Lois Buenau            | Mooreville, NC         | M. Deheck             | Hampstead, NC        |
| Juliana Burke          | Charlotte, NC          | Dan Deitz             | Fletcher, NC         |
| Debbie Burroughs       | Edenton, NC            | Debbie Denton         | Greensboro, NC       |
| Julie Byrne            | Durham, NC             | Grace Dezio           | Wilmington, NC       |
| Lynne C                | Holly Springs, NC      | Suzanne Dickson       | Sneads Ferry, NC     |
| Gregory Caley          | Raleigh, NC            | Gina Diggs            | Sugar Grove, NC      |
| Stacey Cannon          | Salisbury, NC          | Gavin Dillard         | Black Mountain, NC   |
| Amy Carpenter          | Charlotte, NC          | Jennifer Dimarco      | Hickory, NC          |
| Nancy Carroll          | Brevard, NC            | Z.Vijay Director      | Black Mountain, NC   |
| Glenn & Debbie Carson  | Southport, NC          | Deborah Dobson        | Hendersonville, NC   |
| Kicab Castaneda-Mendez | Pittsboro, NC          | Barbara Dolny-Bombar  | Wilmington, NC       |
| Eli Celli              | Chapel Hill, NC        | Laurie Dominy         | Raleigh, NC          |
| Suzanne Chapis         | Hampstead, NC          | Judith Droitcour      | Caswell Beach, NC    |
| Eve Chapple            | Cary, NC               | Caroline Dubose       | Cary, NC             |
| Misha Cheema           | Newport, NC            | David Duch            | Cary, NC             |
| Sarah Chi              | Chapel Hill, NC        | Dina Duffy            | Waynesville, NC      |
| Eleanor Chouiniere     | Burlington, NC         | Christi E Dillon      | Mooreville, NC       |
| Andrew Christopher     | Boone, NC              | Lawrence East         | Jacksonville, NC     |
| David Cignotti         | Wrightsville Beach, NC | Linda Eastman         | Ocean Isle Beach, NC |
| Diane Clark            | Colfax, NC             | Susan Edelstein       | Cary, NC             |
| Ronald Clayton         | Cove City, NC          | Joanne Edsall         | Cornelius, NC        |
| Susan Clayton          | Pittsboro, NC          | Denise Edwards        | Kill Devil Hills, NC |
| Jaye Clayton           | Trinity, NC            | Tiffany Ehnes         | Advance, NC          |
| Beth Cleaveland        | Carolina Beach, NC     | Michael Eisenberg     | Raleigh, NC          |
| Jack Coble             | Greensboro, NC         | Melinda Elkins        | Asheville, NC        |
| Nancy Coffey           | Blowing Rock, NC       | Graham Ellis          | Cary, NC             |
| Emory Collins          | Pineville, NC          | Caitlin Esty          | Knightdale, NC       |
| Paul Collins Jr        | Hillsborough, NC       | Mary Etherton         | Asheville, NC        |
| Evelyn Coltman         | Waynesville, NC        | John Fary             | Marshallberg, NC     |
| Fred Coppotelli        | Cedar Mountain, NC     | Christine Fearing     | Apex, NC             |
| Heide Coppotelli       | Cedar Mountain, NC     | Tracy Feldman         | Durham, NC           |
| Wendy Costa            | Chapel Hill, NC        | Vivian Fish           | Cary, NC             |
| Susan Craver           | Lexington, NC          | Dawn Fisher           | Carolina Beach, NC   |
| Erin Dalpe             | Raleigh, NC            | Lisa Fisk             | Burlington, NC       |
| Erin Dalpe             | Raleigh, NC            | Brandon Lee Fitzwater | Como, NC             |
| Amy Dalporto           | Winston-Salem, NC      | Kathleen Forvour      | Nags Head, NC        |

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| David Fouche         | Winston Salem, NC  | Melanie Husfelt     | Lewisville, NC     |
| Daniel Fountain      | Cary, NC           | Sandra Hutchinson   | Morrisville, NC    |
| Deborah Fox          | New Bern, NC       | Simmons Isler       | Raleigh, NC        |
| Jen Frank            | Sherrills Ford, NC | Farzana Ismail      | Thomasville, NC    |
| Harriette Frank      | Durham, NC         | Russell James       | Wilmington, NC     |
| Theo Fraser          | Pittsboro, NC      | Mary Jeffrey        | Lenoir, NC         |
| Peggy Fry            | Wilmington, NC     | Jewell Jessup       | Wilmington, NC     |
| Deborah Fugate       | Davidson, NC       | Anne Jones          | Greensboro, NC     |
| Bonnie Garner        | Pisgah forest, NC  | Eileen Juric        | Raleigh, NC        |
| Jenny Garvin         | Greensboro, NC     | Natalia Kalianna    | Asheville, NC      |
| Carol George         | Raleigh, NC        | Cynthia Karcher     | Raleigh, NC        |
| Christine Gillis     | Leland, NC         | Karen Kaser-Odor    | Concord, NC        |
| Laura Glover         | Wilmington, NC     | Sharon Kaye         | Asheville, NC      |
| Barbara Goodrich     | Charlotte, NC      | Charles Keeling     | Raleigh, NC        |
| Daniel Graham        | Chaple Hill, NC    | Sara Kennedy        | Morganton, NC      |
| Jackie Gray          | Carrboro, NC       | Aiden Kenny         | Wilmington, NC     |
| Georgan Gregg        | Moncure, NC        | Susan Kerig         | Wallace, NC        |
| Chas Griffin         | Seven Lakes, NC    | Donna Kersey        | Rutherfordton, NC  |
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| Larry Hannon         | Charlotte, NC      | Rosemary Killion    | Winston Salem, NC  |
| April Hardee         | Emerald Isle, NC   | Rosemary Killion    | WINSTON SALEM, NC  |
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| Valerie Harvey       | Walnut Cove, NC    | Richard Knochel     | Charlotte, NC      |
| Melissa Hastings     | Newport, NC        | Jeff Kulp           | Raleigh, NC        |
| Ralph Hasty          | Marshall, NC       | Lucie Laberge       | Charlotte, NC      |
| Jay Hawekotte        | Point Harbor, NC   | Sandra Lail         | Asheboro, NC       |
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| Diana Hill           | Wilmington, NC     | Karen Langelier     | Wilmington, NC     |
| Susan Hindman        | Durham, NC         | Michelle Lee        | Charlotte, NC      |
| Pamela Hoge          | Durham, NC         | Gretchen Leenaarts  | Southern Pines, NC |
| William S.T. Holcomb | Tryon, NC          | Pat Legrand         | Clayton, NC        |
| Jennifer Holston     | PINEVILLE, NC      | Carol Lehman        | Burlington, NC     |
| Nick Hood            | Clemmons, NC       | Bobbi Lempert       | Burnsville, NC     |
| Kevin Hood           | Clemmons, NC       | Stephen Leone       | Southern Pines, NC |
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| Ricki Hudson         | Chapel Hill, NC    | Connie Lipton       | Asheville, NC      |
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 Waynesville, NC  
 Carrboro, NC

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 Jason Palivoda  
 Stephen Parker  
 Susan Parker  
 Krutik Patel  
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 Marc Pendergast  
 Sue Perry  
 Amy Pfaffman  
 Matilda Phillips  
 Matilda Phillips  
 Leia Phillipssprague  
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 Mary Ann Pittman  
 Kobe Kevin Platil  
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 Winston Salem, NC  
 Winston Salem, NC  
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 Raleigh, NC  
 jacksonville, NC  
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 Shelby, NC  
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 Matthews, NC  
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 Durham, NC  
 Greenville, NC  
 Chapel Hill, NC  
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 Greensboro, NC  
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 Mooresville, NC  
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| L Sen                     | Durham, NC         | Michael Wallace               | Durham, NC          |
| Shoshana Serxner-Merchant | Raleigh, NC        | Stefan Walz                   | Cary, NC            |
| Summer Shah               | Charlotte, NC      | Monica Warren                 | Raleigh, NC         |
| Robin Shepard             | Salisbury, NC      | Madison Watson                | Arden, NC           |
| Ce Shinn                  | Charlotte, NC      | Brooke Weatherly              | Trinity, NC         |
| Cindy Shoaf               | Salisbury, NC      | Wes Weaver                    | Boone, NC           |
| Peggy Sholar              | Asheboro, NC       | Ilene Weiner                  | Matthews, NC        |
| Catherine Sims            | Durham, NC         | Stephen Weissman              | Candler, NC         |
| Kathleen Sinclair         | Wilmington, NC     | Linda Wells                   | Cary, NC            |
| Anna Sins                 | Burlington, NC     | Monika Wengler                | Asheville, NC       |
| Renee Skudra              | Greensboro, NC     | Marla West                    | Asheville, NC       |
| Adrian Smith              | Moncure, NC        | Bonnie Westbrook              | Southport, NC       |
| David Smith               | Hendersonville, NC | Kathryn Wiegand               | Raleigh, NC         |
| Katherine Solomita        | Leland, NC         | John Wiles                    | Durham, NC          |
| Jewell Spataro            | Forest City, NC    | Carol Williams                | Hendersonville, NC  |
| William St. George        | Wilmington, NC     | Samantha Williams             | Garner, NC          |
| M Stanley                 | Wilmington, NC     | David Woodsmall               | Raleigh, NC         |
| Nashira Steiger           | Charlotte, NC      | M Wooley                      | Asheville, NC       |
| Sarah Stein               | Raleigh, NC        | M L Woolley                   | Asheville, NC       |
| Mary Dorner Stephens      | Morganton, NC      | Sarah Workman                 | Lake Junaluska, NC  |
| Wendy Stevens             | Charlotte, NC      | Kathy Wright                  | Aberdeen, NC        |
| Leslie Stewart            | Chapel Hill, NC    | William Yingst                | Carolina Shores, NC |
| Daniel Sude               | Raleigh, NC        | Carol Young                   | Durham, NC          |
| Lillian Swindell          | Charlotte, NC      | Julia Young                   | Pittsboro, NC       |
| Denise Szymanski          | Cary, NC           | Gretchen Zeiger-May           | Shallotte, NC       |
| Kent Tager                | Greensboro, NC     | Bonnie Zotos                  | Sherrills Ford, NC  |
| Anne Terry                | carolina beach, NC | Donna Olsen                   | Grand Forks, ND, ND |
| Diane Thomas              | Durham, NC         | Kerri Spiering                | Reiles Acres, ND    |
| John Thomas               | Winston Salem, NC  | Isaac Summers                 | Bismarck, ND        |
| Janet Tice                | Chapel Hill, NC    | Angela Uhlich                 | Bismarck, ND        |
| Mary Ann Till             | Denver, NC         | Ran Zirasri                   | Mandan, ND          |
| Samuel Todd               | Mint Hill, NC      | Sarah Abts                    | Toledo, OH          |
| Betty Toh                 | Cary, NC           | Va Adams                      | Lorain, OH          |
| Louise Tramontano         | Leland, NC         | Dana Akison                   | Columbus, OH        |
| Mary Tuma                 | Charlotte, NC      | Jeanette Allen                | Lebanon, OH         |
| Wim Vand                  | Carrboro, NC       | Nancy Althouse                | Reynoldsburg, OH    |
| Sheri Varner-Munt         | Clayton, NC        | Cindy Pardee & Phil Mcpherson | North Royalton, OH  |
| Tina Vazquez              | Weaverville, NC    |                               | OH                  |
| Victoria Vega             | Raleigh, NC        | Marketa Anderson              | Lebanon, OH         |
| Pat Vescio                | Cary, NC           | Elizabeth Anderson            | Columbus, OH        |
| Mark Virgil               | Apex, NC           | Jennifer Anderson             | Burton, OH          |



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| Laura Asher        | Cincinnati, OH      | Mary Copeland       | Madison, OH           |
| Barbara Baird      | Rayland, OH         | David Cottrell      | Woodsfield, OH        |
| Jill Balsler       | Kingston, OH        | Laureen Coughlin    | Olmsted Twp, OH       |
| Elisha Balzano     | Blacklick, OH       | Susan Cox           | Pickerington, OH      |
| Rebecca Banner     | Canton, OH          | Terry Crogan        | Boardman, OH          |
| Kimberly Barkley   | Cleveland, OH       | John Crookston      | Akron, OH             |
| Marlene Barrett    | Toledo, OH          | Anna Cruikshank     | Springfield, OH       |
| Jennifer Barrett   | Salem, OH           | Linda Cummings      | Montpelier, OH        |
| Kim Barto          | Litchfield, OH      | Joan Dailey         | Youngstown, OH        |
| Maria Basham       | Canton, OH          | Roman Dale          | Fairview Park, OH     |
| Kim Bates          | Avon Lake, OH       | Suzanne Dalton      | Canton, OH            |
| Carl Bauer         | Kent, OH            | Nick Dangelo        | West Chester, OH      |
| Jennifer Bendio    | Middletown, OH      | Judith Dapolito     | West Carrollton, OH   |
| Sydney Benson      | Medina, OH          | Alyssa Darlington   | Fairfield, OH         |
| Bev Bickley        | Copley, OH          | Sharon Daskal       | Beachwood, OH         |
| Pamela Birmingham  | Toledo, OH          | Mari Daugherty      | Fremont, OH           |
| Loretta Bolton     | Bethel, OH          | Heidi Davis         | Tipp City, OH         |
| Brenda Boutin      | Cincinnati, OH      | Elizabeth Davis     | Kettering, OH         |
| Richard Boyce      | Cincinnati, OH      | Christopher Defrank | Youngstown, OH        |
| Eric Britton       | Perrysburg, OH      | Donna Dekatch       | Poland, OH            |
| Jennifer Brown     | Cuyahoga Falls, OH  | Andrea Dembski      | Newark, OH            |
| Michael Brown      | Bedford Heights, OH | Kathleen Demetz     | Cleveland Heights, OH |
| Timothy Bruck      | Mentor, OH          | Kimberly Derwent    | New Albany, OH        |
| Debra Bruegge      | West Chester, OH    | David Dexter        | Tipp City, OH         |
| Mark Burcham       | Grove city, OH      | Raymond Dicarolo    | Maple Heights, OH     |
| Bonnie Cail        | Lakeview, OH        | Daniel Diehl        | Massillon, OH         |
| Brian Campbell     | DE, OH              | Jacki Diguls        | Cincinnati, OH        |
| Ellen Canfil       | Strongsville, OH    | Susan Diller        | Cleveland, OH         |
| Yvonne Carter      | Lakewood, OH        | Denise Donaldson    | Cleveland, OH         |
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| Consuelo Cassotti  | Dayton, OH          | Ken Downey          | Your mom, OH          |
| Bill Casstevens    | Euclid, OH          | Ellen Dryer         | Loveland, OH          |
| Randy Centner      | Montgomery, OH      | Mary Duerksen       | Oxford, OH            |
| Dean Clarke        | Waterville, OH      | Janice Dutka        | North Olmsted, OH     |
| Julie Clayman      | Chagrin Falls, OH   | Paul Dyer           | Columbus, OH          |
| Zack Clayton       | Columbus, OH        | Marilyn Evenson     | Norwalk, OH           |
| Sandra Cobb        | Moreland Hills, OH  | April Eversole      | Hanoverton, OH        |
| Ken Cohn           | Dayton, OH          | Patrice Faulhammer  | Akron, OH             |
| Cal Cole           | Waynesburg, OH      | Marge Fear          | Cleveland Hts, OH     |
| Rebekah Colours    | Euclid, OH          | Steven Federman     | Ottawa Hills, OH      |
| Laura Colston      | Terrace Park, OH    | Ellen Federman      | Toledo, OH            |
| Elliot Comunale    | Akron, OH           | Karl Feller         | Harrison, OH          |

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| Cynthia Fialka             | Huron, OH             | Marsha Heinrich     | Parma, OH              |
| Elizabeth Field            | Willoughby, OH        | Carole Helmkamp     | Whitehouse, OH         |
| Elizabeth Field            | Willoughby, OH        | Ray Hemeyer         | Brunswick, OH          |
| Jeannie Finlay-Kochanowski | Toledo, OH            | Donald Hershey      | Aurora, OH             |
| Richard Firmin             | Zanesfield, OH        | Diane Hert          | Canton, OH             |
| Eugene Flannery            | Cincinnati, OH        | Rachel Hess         | Luckey, OH             |
| Pamela Ford                | Xenia, OH             | Lauren Hicks        | Mason, OH              |
| Cynthia Fortlage           | Holland, OH           | Angel Hissley       | Cincinnati, OH         |
| Anna Freeman               | Columbus, OH          | Jane Hobbs          | Franklin, OH           |
| Juli Frenton               | Springfield, OH       | Barbara Hoch        | Mcconnellsville, OH    |
| Lindsay Friedman           | Columbus, OH          | Mary Hodina         | Mentor, OH             |
| Marianne Frusteri          | Rocky River, OH       | Jake Hoffman        | Columbus, OH           |
| Peggy Fugate               | Oxford, OH            | Nathaniel Holsey    | North Olmsted, OH      |
| Candyce Fujita             | Marysville, OH        | Thomas Holubeck     | Cincinnati, OH         |
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| Nanci Gabbard              | Felicity, OH          | Chow-Chi Huang      | West Chester, OH       |
| Catena Galipo              | Cleveland, OH         | James Huffman       | Toledo, OH             |
| Mike Garcia                | Canal Winchester, OH  | Dwight Hughes       | Sheffield Lake, OH     |
| Raven Gaston               | Pickerington, OH      | Janice Hunter       | Cincinnati, OH         |
| Lynn Gazik                 | Cleveland, OH         | Debra Hurst         | North Olmsted, OH      |
| Desiree Geier              | Canton, OH            | Monica Hymer        | Leesburg, OH           |
| Brian Gibbons              | Fairview Park, OH     | Paula Jackson       | Cincinnati, OH         |
| Carolyn Giera              | Sylvania, OH          | Janette Jackson     | New Carlisle, OH       |
| Gay Goden                  | Euclid, OH            | Electra Jacobs      | New Franklin, OH       |
| Debra Goodnight            | Massillon, OH         | Sue Janssen         | Cleveland, OH          |
| John Graf                  | Norton, OH            | Kimberly Jauch      | Cincinnati, OH         |
| Ben Grego                  | COLUMBUS, OH          | Sandy Johnson       | Cincinnati, OH         |
| Penny Gregorich            | Westerville, OH       | Barbara Joseph      | Batavia, OH            |
| Phyllis Gregory            | Milford, OH           | Daniel Judge        | Columbus, OH           |
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| Cindy Grove                | Cleves, OH            | Phyllis Kadle       | Fairfield Township, OH |
| Maureen Gwynn              | Oberlin, OH           | Susan Kaiserjohnson | Perrysburg, OH         |
| Linda H                    | Ashland, OH           | Sheldon Kanfer      | Columbus, OH           |
| Dennis Hamm                | garfield heights, OH  | Karen Kapes         | Akron, OH              |
| Lynn Hammond               | Cleveland Heights, OH | Dennis Kaplan       | Mayfield Heights, OH   |
| George Hanas               | Conneaut, OH          | Jacob Keller        | Columbus, OH           |
| Sarah Hanley               | Cleveland Hts., OH    | Molly Kenney        | Greenville, OH         |
| James Hansler              | Brecksville, OH       | Karen Kindel        | Canton, OH             |
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| Todd Hasselbach            | Fremont, OH           | Scot Knepshield     | Cincinnati, OH         |
| Sharon Hawkins             | Cuyahoga Falls, OH    | Barbara Koles       | Shaker Heights, OH     |
| Deborah Hawley             | Cleveland, OH         | Gary Koning         | Youngstown, OH         |

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| Tom Kozel          | CIARville, OH        | Karl Moore           | Akron, OH         |
| Patricia Kremer    | Dayton, OH           | Chris Moran          | Cincinnati, OH    |
| Robert Kyle        | Gahanna, OH          | David Mowry          | Concord Twp, OH   |
| Pat Lawrence       | Hillsboro, OH        | Marilee Nagy         | Gahanna, OH       |
| Rochelle Lazio     | Lakewood, OH         | Pam Naylor           | Canton, OH        |
| Melanie Leeson     | Middletown, OH       | Meredith Needham     | Granville, OH     |
| Carol Leonis       | Waite Hill, OH       | Gary Nelson          | Orrville, OH      |
| James Lindsay      | Akron, OH            | Scott Neuhaus        | Cincinnati, OH    |
| Karen Linn         | DE, OH               | Robert Niehaus       | Cincinnati, OH    |
| Scott Lockett      | Akron, OH            | Greg Nielson         | Strongsville, OH  |
| Nancy Loftin       | Toledo, OH           | Christopher Nilo     | Enon, OH          |
| Toni Luke          | Cincinnati, OH       | Juli Nimitz          | West Chester, OH  |
| Dennis Luna        | Mount Vernon, OH     | Michael Norden       | Defiance, OH      |
| Billie Lyon        | Columbus, OH         | Rev. Haroldo Nunes   | Orrville, OH      |
| Tony M             | Cincinnati, OH       | Katharine Oconnell   | Cleveland, OH     |
| Judi Malinish      | New Franklin, OH     | Joy Oconnor          | Akron, OH         |
| Mary Manning       | Youngstown, OH       | Erin Odaniel         | Galena, OH        |
| Linda Mansfield    | Ravenna, OH          | Brandon Okone        | Westerville, OH   |
| Helen Mar          | Beachwood, OH        | Loretta Olsen        | Wilmington, OH    |
| George Marsh       | Tiffin, OH           | Dawn Orahood         | Columbus, OH      |
| Marty Mason        | Highland Heights, OH | Sybil Ortego         | Cincinnati, OH    |
| Deena Masztak      | OR, OH               | Nadine Parish        | Wadsworth, OH     |
| Karen Mate         | Stow, OH             | Ann Pelzer           | Strongsville, OH  |
| Marilyn Matye      | North Olmsted, OH    | Pam Pendleton        | Cincinnati, OH    |
| Steve Mccamley     | Cincinnati, OH       | Alice Petersen       | Toledo, OH        |
| Lorna Mccaslin     | Hinckley, OH         | Mary Petersman       | Cincinnati, OH    |
| Tony McClain       | Mason, OH            | Justin Philipps      | Newark, OH        |
| Jeffrey Mccollim   | Concord, OH          | Terri Pigford        | Dayton, OH        |
| Stephanie Mcfadden | North Olmsted, OH    | Madeline Piscetta    | Wadsworth, OH     |
| Ann C Mcgill       | Brunswick, OH        | Kristine Plisga      | Columbus, OH      |
| Katie Mcginnis     | Grand River, OH      | Gary Plummer         | Mason, OH         |
| Donald Mckelvey    | Euclid, OH           | Lynn Pooley          | Lakewood, OH      |
| Mary Mckinney      | Cardington, OH       | Sharyn Porter        | Worthington, OH   |
| Patti McMahan      | Kinsman, OH          | Tammi Priggins       | Willowick, OH     |
| Pat Mellini        | Mentor, OH           | Elizabeth Publicover | Lancaster, OH     |
| Mary Michaelis     | Columbia Station, OH | Michael Quillin      | parma heights, OH |
| Paula Miller       | West Jefferson, OH   | Tara Quinn           | Brunswick, OH     |
| Laurie Millette    | Portsmouth, OH       | William Raddell      | Cleveland, OH     |
| Elizabeth Miloscia | Munroe Falls, OH     | Julia Radwany        | Akron, OH         |
| Marcia Minsky      | Cincinnati, OH       | Melanie Rak          | Kent, OH          |
| Jennifer Moix      | Waynesville, OH      | Gail Ramke           | Dayton, OH        |

|                     |                             |                     |                        |
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| Anne Randolph       | Yellow Springs, OH          | Kate Sky            | Marysville, OH         |
| Debra Reble         | Cleveland, OH               | Taylor Smith        | New Carlisle, OH       |
| Cate Renner         | Dayton, OH                  | Dania Smith         | Cincinnati, OH         |
| Judith Reuning      | Columbus, OH                | Jean Smith          | Cleveland Heights, OH  |
| Michelle Rice       | Olmsted Twp, OH             | Cindy Smith         | New Concord, OH        |
| Annick Richardson   | Dayton, OH                  | Marie Smith         | North Canton, OH       |
| Erin Richardson     | Swanton, OH                 | Cynthia Springer    | Parma Heights, OH      |
| Mary Ricketts       | Springfield, OH             | Susie Stech         | Coventry Township, OH  |
| Patty Ridenour      | Oakwood, OH                 | Kathy Steffens      | Columbus, OH           |
| Kathi Ridgway       | Canal Winchester, OH        | Linda Steininger    | Belmont, OH            |
| Christine Ridgway   | Brunswick, OH               | Janette Stender     | Tallmadge, OH          |
| Janice Riegler      | Dublin, OH                  | Roberta Stephan     | Columbia Station, OH   |
| Denise Rischel      | North Royalton, OH          | Jeff Sterling       | Cleveland Heights, OH  |
| Sarah Rizzo         | Ashtabula, OH               | William Stern       | Euclid, OH             |
| Teresa Roach        | Powell, OH                  | Judith Stevens      | Cleveland, OH          |
| Gretchen Roberts    | Avon Lake, OH               | Nichole Stevens     | cleveland, OH          |
| B. Rose             | New Straitsville, OH        | Christopher Stimson | Akron, OH              |
| David Roth          | Brooklyn, OH                | David Stone         | Columbus, OH           |
| Thomas Rottmayer    | Columbus, OH                | A. Stricklin        | Findlay, OH            |
| Allison Rudolph     | Strongsville, OH            | Gail Stroud         | University Hts, OH     |
| Betty Rukavina      | Mansfield, OH               | Ann Sutherin        | Columbus, OH           |
| Kris Russo          | Kettering, OH               | Douglas Terry       | Hudson, OH             |
| Shubra Sachdev      | Powell, OH                  | Teresa Thomas       | Howard, OH             |
| Debbie Sanders      | Salem, OH                   | Susan Thurairatnam  | North Olmsted, OH      |
| Carol Schmidt       | Sidney, OH                  | T Todaro            | University Heights, OH |
| Susan Schmidt       | Medina, OH                  | Wayne Toven         | Ravenna, OH            |
| Nate Schmidt        | Columbus, OH                | Tamara Truswell     | Mansfield, OH          |
| Mark Schmidt        | Reading, OH                 | Linda Tucker        | Mansfield, OH          |
| John Schmittauer    | Millfield, OH               | Laura Vadaj         | Broadview Heights, OH  |
| Amy Schumacher      | Beavercreek, OH             | Cynthia Vallo       | Dayton, OH             |
| Brian M. Scott      | Cleveland Heights, OH       | Mary Virre          | Columbus, OH           |
| Michael Seager      | Mentor, OH                  | Aloysius Wald       | Columbus, OH           |
| Vanessa Seay        | Dayton, OH                  | Janice Waldron      | Lancaster, OH          |
| Mary Seegott        | Burton, OH                  | Nicole Waldron      | Hamden, OH             |
| Pamela Shaw         | Cincinnati, OH              | Ruth Ware           | Sylvania, OH           |
| Michael Sheidler    | Dayton, OH                  | Thomas Warner       | CINCINNATI, OH         |
| Stephanie Shewalter | Hillsboro, OH               | Claire Watson       | Dayton, OH             |
| David Sickles       | Willoughby, OH              | Tammy Weaver        | Columbus, OH           |
| Robert Sikorski     | Cincinnati, OH              | Christopher Webster | Galloway, OH           |
| Steve Simmons       | Beavercreek Township,<br>OH | Vicki Wheeler       | Deshler, OH            |
| Eric Simpson        | Cincinnati, OH              | Kaley Wickham       | Ashland, OH            |
| Jamie Sitko         | Hiram, OH                   | Robert Wilda        | Beavercreek, OH        |
|                     |                             | Ronda Wilde         | Cincinnati, OH         |

Jan Williams Las Vegas, OH  
 Megan Williams Rogers, OH  
 Susan Wilson Hicksville, OH  
 Mary Ann Wishnosky North Royalton, OH  
 Lisa Witham Mentor On The Lake, OH  
  
 Jenny Witt Oxford, OH  
 Bethany Witthuhn North Royalton, OH  
 Alexis Wolin Cleveland Hts, OH  
 Ronald Wolniewicz Toledo, OH  
 Rebekah Wood Toledo, OH  
 Cathy Wootan Cleveland, OH  
 Viviana Yost Centerburg, OH  
 Gary Zahler north c anton, OH  
 Shawna Zanne Cleveland, OH  
 Erin Znidar Mentor, OH  
 Erin Znidar Mentor, OH  
 Greg Zyzanski Lyndhurst, OH  
 Richard Balentine Kellyville, OK  
 Dana L Beck Tulsa, OK  
 Marilyn Bedford Tulsa, OK  
 Jeanine Bell OK Cityâ€™s, OK  
 Leslie Bradford Moore, OK  
 Jeff Brown OK City, OK  
 Diana Burull Edmond, OK  
 Nora Carranco Dewey, OK  
 Gayla Cremin Collinsville, OK  
 Scheree Davis Claremore, OK  
 Jeffrey Davis Yukon, OK  
 Rhonda Dunne Tulsa, OK  
 Angela Emig Blanchard, OK  
 Brenda Evans Sapulpa, OK  
 Jeffrey Fernandez Tryon, OK  
 Andrew Frost Norman, OK  
 Lisa Garner Ardmore, OK  
 Kathy Gosselin Canadian, OK  
 Deborah Hirt Stillwater, OK  
 Carl Huenefeld Tulsa, OK  
 Stephanie Jones OK City, OK  
 Judi Kerr Lawton, OK  
 Hattie Kirschner Tulsa, OK  
 Annette Long-Stinnett Tahlequah, OK  
 Candace Meyer Norman, OK

Candy Mitchell Tulsa, OK  
 David Moss Claremore, OK  
 Kathy Nix Yukon, OK  
 Robin Patten OK City, OK  
 Lawrence Plummer Sand Springs, OK  
 Donna Rehmert Eufaula, OK  
 Cathy Reynolds Walters, OK  
 Debbie Sequichie-Kerchee Cache, OK  
 G. Edward Shissler Edmond, OK  
 Tera Shuart Edmond, OK  
 Gregory Simpson Norman, OK  
 Whitney Terrell OK City, OK  
 Amy Tiger Tulsa, OK  
 Celeste Tindall Yukon, OK  
 Kelly Voyer Wagoner, OK  
 Michael White Mustang, OK  
 Sydney Whittaker OK City, OK  
 Jenny Woodruff OK City, OK  
 Betty Abadia Portland, OR  
 Nancy Abell Rainier, OR  
 Jennifer Abernathy Bend, OR  
 Patrice Aiello Salem, OR  
 Robert Albee williams, OR  
 Anthony Albert Corvallis, OR  
 Mick Alderman Astoria, OR  
 Jill Allene Henning McMinnville, OR  
 John Altshuler Eugene, OR  
 Connor Amundsen Corvallis, OR  
 Judith Arayaes Tigard, OR  
 Andrew Arneson Beaverton, OR  
 Susanna Askins Portland, OR  
 Steve Aydelott Bend, OR  
 Diane Bagues Milwaukie, OR  
 Keith Baldwin Ashland, OR  
 Marvin Bame Portland, OR  
 John Barger Portland, OR  
 Richard Barker Beaverton, OR  
 Kathie Barnes SALEM, OR  
 John R. Bartels Portland, OR  
 Jane Bartosz Salem, OR  
 Cherine Bauer Eugene, OR  
 Judy Baugh Bandon, OR  
 Robin Bennett Bend, OR

Laury Benson Bend, OR  
 Dorothy Jean Beyer Mount Angel, OR  
 Linore Blackstone Portland, OR  
 Edith Bogart Florence, OR  
 Kate Bolinger Bend, OR  
 Patty Bonney Portland, OR  
 Diana Boom Lake Oswego, OR  
 Lynette Boone Eugene, OR  
 Annita Bowman Ontario, OR  
 Nancy Boyd Eugene, OR  
 Robert Bresky OR City, OR  
 R Bristow Port Orford, OR  
 Tara Brock Portland, OR  
 P Bryer eugene, OR  
 Cierra Buer Powell Butte, OR  
 J Bvd Eddyville, OR  
 Donna Byrd Eugene, OR  
 Tana Cahill Portland, OR  
 Rachel Cairns Hermiston, OR  
 Maurine Canarsky Portland, OR  
 Sabrina Carey Talent, OR  
 Nancy Carl Carlton, OR  
 Katarina Carrico Salem, OR  
 Rita Castillo Springfield, OR  
 Jason Chin Portland, OR  
 Veroune Chittim Selma, OR  
 Cynthia Chrystal Bend, OR  
 Bob Clark Portland, OR  
 Robert Clark grants pass, OR  
 Renee Clark Lincoln City, OR  
 Blythe Clark-Mckitrick Portland, OR  
 Tammi Clenard Portland, OR  
 Belinda Colley Azalea, OR  
 Shirley Collins Eugene, OR  
 Glen Comuntzis Tigard, OR  
 Crystal Connelly-Barcus Eugene, OR  
 Tacey Conover Eugene, OR  
 S Cook Portland, OR  
 Scott Crockett Florence, OR  
 Ken Cropper Portland, OR  
 Michelle Crow Portland, OR  
 Debra Culwell Gresham, OR  
 Jacqueline Cutler Yachats, OR

Heather Dale Wilsonville, OR  
 Nicole Damico Portland, OR  
 Heather Davis Beaverton, OR  
 Amber Davis Portland, OR  
 Susan Delles Rogue River, OR  
 D Deloff Beaverton, OR  
 Marsha Dempsey Forest Grove, OR  
 Karen Deora Portland, OR  
 Amy Dickens Portland, OR  
 Jayne Digiovanni BEAVERTON, OR  
 Laura Dufel Portland, OR  
 Mary Duffy Grants Pass, OR  
 Lisa Duke Eugene, OR  
 Denny Duncan Lincoln City, OR  
 Mary Eastman Toledo, OR  
 Elizabeth Carol Edwards Cloverdale, OR  
 Stephanie Edwards Forest Grove, OR  
 David Edwards Eugene, OR  
 Victoria Eells Sixes, OR  
 Isaac Ehrlich West Linn, OR  
 Jen Eiffert Medford, OR  
 Marguerite Eliasson South Beach, OR  
 Sandra Elliott Portland, OR  
 J A Ellis Ashland, OR  
 Ben Enticknap Portland, OR  
 Pamela Erwin Eugene, OR  
 Allison Everitt Salem, OR  
 Melanie Feder Philomath, OR  
 Lois Feuerle Portland, OR  
 Nathaniel Feyma Eugene, OR  
 Linda Firestone Port Orford, OR  
 Judith Fisher Halfway, OR  
 Rebecca Fisher Forest Grove, OR  
 Sandra Flaskerud sandy, OR  
 Melinda Fleming Portland, OR  
 Timothy Flewelling REDMOND, OR  
 Dianne Fode Portland, OR  
 Dawn Foss Albany, OR  
 Rosemary Foster Springfield, OR  
 Harry Freiberg Brookings, OR  
 Nina French Portland, OR  
 Esther Friedman Salem, OR  
 Grant Fujii Portland, OR

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|------------------------|---------------|---------------------|-------------------|
| Stephen Funk           | Portland, OR  | Victoria Holzendorf | Unit H, OR        |
| Jean-Pierre Garau      | Portland, OR  | Joshua Horner       | Happy Valley, OR  |
| Julia Gaskill          | Portland, OR  | David Houlton       | Winston, OR       |
| Karlyn Gedrose         | Beaverton, OR | Osalyn Houser       | Albany, OR        |
| Mika Gentili           | Hillsboro, OR | Paul Howard         | Corvallis, OR     |
| Robert Gibson          | Ashland, OR   | Charles Hung        | Eugene, OR        |
| Patricia Gifford       | Portland, OR  | Judith Huse         | Hillsboro, OR     |
| Eileene Gillson        | Sherwood, OR  | David Ibbotson      | Portland, OR      |
| Michalle Gleason       | Portland, OR  | C.A. Incze          | Winston, OR       |
| Julie Glick            | Roseburg, OR  | Marianne Itkin      | Portland, OR      |
| Janette Gordon         | Tigard, OR    | Jeri Iversen        | Astoria, OR       |
| Jennifer Gottwald      | Glendale, OR  | Tracy Jackson       | Vida, OR          |
| Wanda Graff            | Canby, OR     | Pat Jacobson        | Wilsonville, OR   |
| David Grant            | Medford, OR   | David Jaffe         | Portland, OR      |
| Ryan Graven            | Portland, OR  | Robin Jenkins       | Dallas, OR        |
| Len Greenwood          | Selma, OR     | Robert Jessen       | Klamath Falls, OR |
| Dawn Griffin           | Portland, OR  | William Johnson     | Molalla, OR       |
| David Griffith         | Portland, OR  | Heather Johnson     | Blodgett, OR      |
| Phyllis Grove          | Bend, OR      | Robert Jones        | Salem, OR         |
| Olga D Grovic          | Portland, OR  | Stephanie Julian    | Portland, OR      |
| David Grovic-Rauenzahn | Portland, OR  | Scott Kacek         | Portland, OR      |
| Nancy Haas             | Bend, OR      | Erika Kane          | Hubbard, OR       |
| Gwen Hadland           | Hillsboro, OR | Stephen Karakashian | Milwaukie, OR     |
| Stacie Hall            | OR City, OR   | Ellen Kearns        | Bend, OR          |
| Michael Halloran       | Salem, OR     | Margaret Keene      | Madras, OR        |
| Kenlynn Hamilton       | Portland, OR  | Denise Keeton       | Metolius, OR      |
| Carole Hamilton        | Dallas, OR    | Diana Kekule        | DEPOE BAY, OR     |
| Kimberly Hammond       | Portland, OR  | Dorinda Kelley      | portland, OR      |
| Laura Hanks            | Milwaukie, OR | Thomas Keys         | Gresham, OR       |
| Bob Hannigan           | Corvallis, OR | Rebecca Kimsey      | Sublimity, OR     |
| Julie Harris           | Beaverton, OR | Lane King           | Grants Pass, OR   |
| Randy Harrison         | Eugene, OR    | Mary Knoth          | Central Point, OR |
| John Hathaway          | Redmond, OR   | Roger Kofler        | Portland, OR      |
| Julie Hawley           | Albany, OR    | Carolynn Kohout     | Hillsboro, OR     |
| Susan Haywood          | Portland, OR  | Rheama Koonce       | Depoe Bay, OR     |
| Frances Heath          | Salem, OR     | Carrie Kopacz       | Gresham, OR       |
| Angie Heide            | Portland, OR  | Randy Kozar         | Hillsboro, OR     |
| Denine Heinemann       | Portland, OR  | Ole Kristensen      | Albany, OR        |
| Chloe Hemelstrand      | Turner, OR    | K L                 | roseburg, OR      |
| Roslyn Herrera         | West Linn, OR | Richard Langis      | Aloha, OR         |
| Nate Hildebrand        | Portland, OR  | Zed Langston        | Eugene, OR        |
| Veronica Hinkes        | Carlton, OR   | Cheri Laos          | Portland, OR      |
| Megan Hoff             | Toledo, OR    | Alice Larsen        | South beach, OR   |

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|----------------------|-------------------|---------------------------|-------------------|
| Rhett Lawrence       | Portland, OR      | Connie Meadows            | Portland, OR      |
| Alan Lawrence        | Portland, OR      | Donna Meadows             | Bend, OR          |
| Emily Lazur          | Roseburg, OR      | Kerry Meads               | White City, OR    |
| Catherine Leach      | Springfield, OR   | Danielle Megano           | Hillsboro, OR     |
| Debbie Lehwalder     | Grants Pass, OR   | Theresa Melof             | Hillsboro, OR     |
| Craig Lerner         | Portland, OR      | David Michalek            | Hood River, OR    |
| Beth Levin           | Portland, OR      | Randall And Luanne Mierow | Beavercreek, OR   |
| Alicia Liang         | Portland, OR      | Randy Mills               | saalem, OR        |
| Marcel Liberge       | Murphy, OR        | Helena Moissant           | Central Point, OR |
| Alana Liechty        | Portland, OR      | Jan Monical               | Warren, OR        |
| Susan Lindberg       | Portland, OR      | Linda Moore               | Spray, OR         |
| Carol Lofgren        | North Plains, OR  | Marilyn Mooshie           | Selma, OR         |
| John Long            | Redmond, OR       | Julaine Morley            | Yachats, OR       |
| Jennifer Loomis      | Portland, OR      | Molly Morris              | Medford, OR       |
| Peggy Loveless       | Hillsboro, OR     | Nettie Morrison           | Bend, OR          |
| Shannon Lucas        | Bend, OR          | Carol Moyle               | Lake Grove, OR    |
| Diane Luck           | Portland, OR      | Donna Mulvey              | Grants Pass, OR   |
| Jacqueline Lukens    | Newberg, OR       | Cristy M Murray           | OR City, OR       |
| Gene Luttmann        | Burns, OR         | Kris N                    | Portland, OR      |
| Mary Lyda            | Cave Junction, OR | Marjorie Nafziger         | Portland, OR      |
| Chris Lykins         | Lebanon, OR       | Jurissah Naive            | Beaverton, OR     |
| Nora Lyman           | Bandon, OR        | Victoria Nautel           | Portland, OR      |
| Robin Macgarghee     | Beaverton, OR     | Grace Neff                | Albany, OR        |
| Chris Mack           | Milwaukie, OR     | Randall Nerwick           | Milwaukie, OR     |
| Jennifer Maffei      | Portland, OR      | Shawn Newswanger          | Salem, OR         |
| Sally Maish          | Roseburg, OR      | Gina Norman               | Portland, OR      |
| Joanna Malaczynski   | Bend, OR          | Ann Nowicki               | Eugene, OR        |
| Joy Mamoyac          | Corvallis, OR     | Margaret Obert            | La Pine, OR       |
| Jane Mara            | Murphy, OR        | Shayne Obrien             | Portland, OR      |
| Donna Marchetti      | Ashland, OR       | Frankie Ofarrell          | DEPOE BAY, OR     |
| Heather Marsh        | Lake Oswego, OR   | Shandra Officer           | Springfield, OR   |
| Nancy Marshall       | Portland, OR      | Sandra Oliver-Poore       | Salem, OR         |
| Beth Marshall        | Central Point, OR | Mary Oloughlin            | Bend, OR          |
| Michael Martin       | Portland, OR      | Maureen Oneal             | Portland, OR      |
| Lindsey Martin-Bowen | La Grande, OR     | Victor Ortega             | Brookings, OR     |
| Kathleen Mattern     | Portland, OR      | Sherry Palmer             | West Linn, OR     |
| Dolores Matthys      | Gearhart, OR      | Mary Lynn Parodi          | Tigard, OR        |
| Tiffany Mcclarey     | Portland, OR      | Lea Patten                | Florence, OR      |
| Annie Mccuen         | Salem, OR         | Dorothy Patterson         | Medford, OR       |
| Mary Mcgaughey       | Gresham, OR       | Judith Phillips           | Eagle Point, OR   |
| Lary Mckee           | Gervais, OR       | Neilia Pierson            | Cave Junction, OR |
| Wendy Mckee          | Corvallis, OR     | Evelyn Pietrowski-Ciullo  | Salem, OR         |
| Camille Mcphee       | Portland, OR      | Desiree Piter             | Salem, OR         |



|                      |                   |                            |                   |
|----------------------|-------------------|----------------------------|-------------------|
| Carey Pivceвич       | Bend, OR          | Micki Selvitella           | Portland, OR      |
| Nancy Pole-Wilhite   | Portland, OR      | Dana Sewall                | Gresham, OR       |
| Nora Polk            | Portland, OR      | Howard Shapiro             | Portland, OR      |
| Ramona Ponessa       | Bandon, OR        | Donna Jean Sharp           | Veneta, OR        |
| Paul Poresky         | Myrtle Point, OR  | Jimmy Shaw                 | Hillsboro, OR     |
| Tom Posey            | Portland, OR      | Shirley Shaw               | Corvallis, OR     |
| Andrea Powell        | Lake Oswego, OR   | Steve Sheehy               | Klamath Falls, OR |
| Pat Powers-Jaeger    | Portland, OR      | Betty Shelley              | Portland, OR      |
| Elaine Priday        | Powell Butte, OR  | Jamie Shields              | Portland, OR      |
| Christen Prudence    | Welches, OR       | Kenji Shimomura            | Portland, OR      |
| Janet R.             | Eugene, OR        | Dean Sigler                | Aloha, OR         |
| Jaime Ramirez        | Corvallis, OR     | Danika Sinram              | BAKER CITY, OR    |
| Caley Ream           | Salem, OR         | Katherine Skirvin          | Pendleton, OR     |
| Diana Rebman         | Portland, OR      | Sagen Smith                | Ashland, OR       |
| Debra Rehn           | Portland, OR      | Debra Smith                | Milwaukie, OR     |
| Casey Jo Remy        | Days Creek Rd, OR | Kristin Smith              | Portland, OR      |
| Michael Renfrow      | Portland, OR      | Kathy Smith                | Grants Pass, OR   |
| Will Richardson      | Talent, OR        | George Snipes              | Portland, OR      |
| Juanita Rinas        | Eugene, OR        | Valerie Snyder             | Forest Grove, OR  |
| Will Ritter          | Astoria, OR       | Victor Soule               | Milwaukie, OR     |
| Martin Robbins       | Astoria, OR       | Nancy Sowersby             | Roseburg, OR      |
| Amy Roberts          | Albany, OR        | Tiffany Spahn              | Portland, OR      |
| Brock Roberts        | Portland, OR      | S Spencer                  | Gresham, OR       |
| Kathryn Robinson     | Gladstone, OR     | Steph Spencer              | Bend, OR          |
| Kathleen Roche       | Bend, OR          | Jeanne St Pierre           | Salem, OR         |
| Brent Rocks          | Portland, OR      | Jeanne St Pierre           | Salem, OR         |
| Laurel Rogers        | Portland, OR      | Mitchell Stargrove         | Hillsboro, OR     |
| Sharon Rogers        | Coos Bay, OR      | Martha Stevens             | Wallowa, OR       |
| Mireia Roig-Paul     | Corvallis, OR     | Laura Stice                | Eugene, OR        |
| Juanita Rosene       | Ashland, OR       | Jan Stone                  | Aloha, OR         |
| Jennifer Rubey       | Beaverton, OR     | Robert Stoyles             | Sublimity, OR     |
| Maryann Rudy         | Portland, OR      | Dale Sturdavant            | Eugene, OR        |
| Kathleen Ruiz        | Seaside, OR       | Amanda Sweet               | Tigard, OR        |
| Theresa Russio       | West Linn, OR     | David Sweet                | Portland, OR      |
| Dave Ruud            | Portland, OR      | Laurie Swenson             | Bend, OR          |
| Anne Ryland          | Ashland, OR       | Jim And Sophie Swirczynski | Eugene, OR        |
| Kathryn Ryser        | Wilderville, OR   | Susan Tait                 | Aloha, OR         |
| Rosalie Sable        | Medford, OR       | Carl Tegethoff             | Siletz, OR        |
| Alex Samarin         | Bend, OR          | Trisha Tenbroeke           | Portland, OR      |
| Georgeanne Samuelson | Oakridge, OR      | Mary Thiel                 | Portland, OR      |
| Bruce Schacht        | Portland, OR      | Janie Thomas               | Eugene, OR        |
| Jud Schlacter        | Eugene, OR        | Lauren Thompson            | Portland, OR      |
| Michael Seefeldt     | Stanfield, OR     | Annie Thorp                | Salem, OR         |

|                    |                  |                    |                       |
|--------------------|------------------|--------------------|-----------------------|
| Hillary Tiefer     | Portland, OR     | James Achey        | Union Dale, PA        |
| Rebecca Tilden     | Aumsville, OR    | Ray Acosta         | Womelsdorf, PA        |
| A. Todd            | Eugene, OR       | Peggy Acosta       | Womelsdorf, PA        |
| Jan Toister        | Corvallis, OR    | Peter Adams        | Pittsburgh, PA        |
| Marian Tracy       | Coos Bay, OR     | Linda Addis        | Hermitage, PA         |
| Paul Trautman      | Portland, OR     | Eugenia Ahern      | Philadelphia, PA      |
| Carol Trevor       | Portland, OR     | Terence Aldom      | Wernersville, PA      |
| Michael Tribble    | Myrtle Point, OR | Kellie Allen       | Canton, PA            |
| Gertrude Turley    | Boring, OR       | Diane Allison      | Pipersville, PA       |
| Nancy Turner       | Woodburn, OR     | Michelle Alvare    | Havertown, PA         |
| David Tvedt        | Eugene, OR       | Donald Ament       | Leola, PA             |
| Lory Utz           | Roseburg, OR     | Gail Amshel        | Pittsburgh, PA        |
| Maria Valls        | Portland, OR     | Rhonda Anderson    | Kennett Square, PA    |
| Martha Vest        | Portland, OR     | Nicholas Anderson  | Pittsburgh, PA        |
| Joan Viers         | Hubbard, OR      | William Anderson   | Narberth, PA          |
| Estelle Voeller    | Medford, OR      | Megan Anderson     | Pittsburgh, PA        |
| Carol Wagner       | Albany, OR       | Alison Anderson    | Philadelphia, PA      |
| Michele Walters    | Depoe Bay, OR    | Stefan Anthopoulos | Phoenixville, PA      |
| Ann Wardowski      | Hillsboro, OR    | Stephan Armstrong  | Watsontown, PA        |
| Darlene Warner     | Lebanon, OR      | Brian Arneman      | Edinboro, PA          |
| Susan Weatherby    | Madras, OR       | Janet Arnone       | HATFIELD, PA          |
| Nancy Weil         | Arch Cape, OR    | Oneida Arosarena   | Huntingdon Valley, PA |
| Debbi Weiler       | Keizer, OR       | R Austin           | Birchrunville, PA     |
| Dana Weintraub     | Beaverton, OR    | Katharine Avarese  | Philadelphia, PA      |
| Steve Weiss        | Portland, OR     | Susan Babbitt      | Philadelphia, PA      |
| Jim Wells          | Medford, OR      | Susan Babbitt      | Philadelphia, PA      |
| Heidi Welte        | Beaverton, OR    | William Bader      | Bethlehem, PA         |
| Alice West         | Portland, OR     | Sidne Baglini      | Malvern, PA           |
| Ray West           | Astoria, OR      | Shannon Bakros     | Easton, PA            |
| Rodney Whisenhunt  | Roseburg, OR     | Shannon Ball       | NANTICOKE, PA         |
| Kimberly Wick      | Buxton, OR       | Gail Balser        | Delta, PA             |
| Allan Widmeyer     | Ashland, OR      | Mark Barbash       | Philadelphia, PA      |
| Jennifer Will      | Bend, OR         | Ann Barnes         | Russell, PA           |
| Shirley Williamson | Mcminnville, OR  | Gary Barr          | Reading, PA           |
| Sherry Wilmsen     | Lincoln City, OR | Jack Barrett       | Bushkill, PA          |
| Joyce Winslow      | Eugene, OR       | Linda Barsamian    | West Chester, PA      |
| Joseph Wolf        | Portland, OR     | Ron Bartosh        | Pittsburgh, PA        |
| Leann Wolley       | Tualatin, OR     | Diane Bastian      | Liberty, PA           |
| Dolores Wood       | Portland, OR     | Judith Battaglia   | Ambler, PA            |
| Jaymee Workman     | Keizer, OR       | Scott Baumann      | Pittsburgh, PA        |
| Bridget Wyatt      | Portland, OR     | Taunja Beck        | Lancaster, PA         |
| Bob Yuhnke         | Gresham, OR      | Jessica Bellas     | Pittsburgh, PA        |
| Eric Aberle        | Drexel Hill, PA  | Sharon Belson      | Brookhaven, PA        |

|                           |                    |                       |                     |
|---------------------------|--------------------|-----------------------|---------------------|
| Andrew Benson             | Malvern, PA        | Katie Chong           | Jenkintown, PA      |
| Betsy Berger              | Kennett Square, PA | David Christiansen    | Mechanicsville, PA  |
| Nancy Bergey              | New Wilmington, PA | Mary Christman        | Buck Hill Falls, PA |
| Henry Berkowitz           | Sabinsville, PA    | Ann-Marie Christopher | Pittsburgh, PA      |
| Linda Bescrypt            | Langhorne, PA      | Joyce Ciotti          | Pittsburgh, PA      |
| Lee Bible                 | Abbottstown, PA    | William Clark         | Fairless Hills, PA  |
| Kenneth Bickel            | Pittsburgh, PA     | William Clifford      | Harrisburg, PA      |
| Dave Bindewald            | Pittsburgh, PA     | Raymond Coccia        | Greensburg, PA      |
| Jennifer Binus            | Altoona, PA        | Ellen S Cohen         | Ardmore, PA         |
| Kathryn Bluhm             | Hollsopple, PA     | Elaine Cohen          | Jenkintown, PA      |
| Carol Blum                | Philadelphia, PA   | Muriel Coley          | Jenkintown, PA      |
| Phyllis Blumberg          | Bala Cynwyd, PA    | Victor Colon          | Reading, PA         |
| Santiago Bobadilla        | Lancaster, PA      | Patricia Connell      | Chambersburg, PA    |
| Jacqueline Bobnick        | Lawrence, PA       | Kathryn Conrad        | Duncannon, PA       |
| Monica Bonualas           | Mountain Top, PA   | Robert Cooke Jr       | Mount Joy, PA       |
| Carol Book                | York, PA           | John Cooper           | Lewisburg, PA       |
| Meghan Boyd               | Pittsburgh, PA     | Donna Cosgrove        | Philadelphia, PA    |
| Jess Boyer                | Harrisburg, PA     | Jack Costa            | Nottingham, PA      |
| Stacey Bradley            | Hastings, PA       | Jacki Coughlin        | Norristown, PA      |
| Alex Brandt               | Elkins Park, PA    | Josh Craven           | Blue Bell, PA       |
| Conchita Braun            | Reading, PA        | Susan Crawford        | Hazleton, PA        |
| Betty A Brendel           | Lock Haven, PA     | Laurie Cressman       | Muncy, PA           |
| Keith Britton             | Cheltenham, PA     | John Cszasz           | Fleetwood, PA       |
| Keith Britton             | Cheltenham, PA     | Jo Cuffari            | Philadelphia, PA    |
| Gregory Brooks            | Norristown, PA     | Kristin Culp          | Newtown Square, PA  |
| Randi Brown               | Villanova, PA      | Beverly Cyr           | Athens, PA          |
| Robert Brown              | Stillwater, PA     | Kathy Dabanian        | Sellersville, PA    |
| Harry And Jill Brownfield | Newport, PA        | Gina Dalvesco         | Ambridge, PA        |
| Irene Bucko               | Collegeville, PA   | Patricia Dangle       | Montoursville, PA   |
| Elizabeth Burger          | Glen Mills, PA     | Jen Danner            | Nazareth, PA        |
| Barbara Burgess           | Hanover, PA        | K Danowski            | Pittsburgh, PA      |
| John Bush                 | Coatesville, PA    | Anita Dauberman       | Halifax, PA         |
| Julie Butche              | Newfoundland, PA   | Ruthanne Dayton       | Pittsburgh, PA      |
| Jeanne Buterbaugh         | Cheswick, PA       | Tiffany Deal          | Red Lion, PA        |
| Craig C                   | Pittsburgh, PA     | Beth Dean             | ALBION, PA          |
| Loretta Calise-Simmons    | Manchester, PA     | Tina Decarla          | Telford, PA         |
| Rosemary Caolo            | Scranton, PA       | Mary Deckman          | Plumsteadville, PA  |
| Desiree Carbone           | Pittsburgh, PA     | Betsy Delisle         | Lancaster, PA       |
| Cheryl Champy             | Media, PA          | Mike Dellapenna       | Malvern, PA         |
| Carolynn Chapman          | Lafayette Hill, PA | Vera Demchenko        | Lakeville, PA       |
| Christine Chesire         | Aliquippa, PA      | Robert Depew          | Newtown, PA         |
| Me Chiccine               | Willow Grove, PA   | Robin Devaney         | Middletown, PA      |
| Laura Chinofsky           | Southampton, PA    | Carol Dewees          | Pottstown, PA       |

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|--------------------|--------------------------|-------------------|--------------------------|
| Nicholas Diamond   | White Oak, PA            | Patrick Felix     | Philadelphia, PA         |
| Christopher Diem   | Philadelphia, PA         | Mary Ferrigno     | Philadelphia, PA         |
| Patty Digiacomu    | Philadelphia, PA         | David Fiedler     | Bensalem, PA             |
| Patty Digiacomu    | Philadelphia, PA         | David Fiedler     | Bensalem, PA             |
| N Ding             | Upper Darby, PA          | Joyce Filauri     | Coraopolis, PA           |
| Kathleen Doctor    | Kittanning, PA           | Jaime Filipek     | Pittsburgh, PA           |
| Deborah Dodorico   | Pittsburgh, PA           | Howard Filtz      | Pittsburgh, PA           |
| Ryan Dodson        | Lancaster, PA            | Jan Fine          | Prospect Park, PA        |
| Gary Dorward       | Bath, PA                 | Carl Finkbeiner   | Media, PA                |
| Willa Doswell      | Harrison City, PA        | Keith Fisher      | Willow Grove, PA         |
| Eric Dougherty     | Perkiomenville, PA       | Michele Fisk      | Henryville, PA           |
| Karen Drennen      | South Park, PA           | Angela Floyd      | Pottstown, PA            |
| Skip Drinkwater    | Malvern, PA              | Denise Foehl      | Royersford, PA           |
| Gloria Druss       | Ardmore, PA              | Marguerite Foley  | Philadelphia, PA         |
| Sandra Dubois      | furlong, PA              | Tom Fonda         | State College, PA        |
| Michelle Dudeck    | Monessen, PA             | Cynthia Foore     | Glen Mills, PA           |
| Joanne D'Ulisse    | Springfield, PA          | Elise Ford        | Pittsburgh, PA           |
| Christopher Dunham | Feasterville Trevose, PA | Nancy Foust       | Stoneboro, PA            |
| Dorothy Dunlap     | Pittsburgh, PA           | Razelle Frankl    | gladwyne, PA             |
| Curtis Dunn        | Ambler, PA               | Elaine Frech      | Downingtown, PA          |
| Tina Durakov       | Bethlehem, PA            | Erich Freimuth Jr | Wayne, PA                |
| Cindy M. Dutka     | Philadelphia, PA         | J Fried           | West Chester, PA         |
| David Dzikowski    | Canonsburg, PA           | Marilyn Fritz     | Bethlehem, PA            |
| David Eaby         | Ephrata, PA              | Jess Fry          | Lebanon, PA              |
| Dawn Eagle         | Bath, PA                 | Sherri Fryer      | Clymer, PA               |
| Philomena Easley   | Fairless Hills, PA       | Martin Fumo       | Philadelphia, PA         |
| Brian Eckert       | Bethel Park, PA          | Sharon Furlong    | Feasterville Trevose, PA |
| Robert Edwards     | Wilkes Barre, PA         | Rebecca Gagliano  | Philadelphia, PA         |
| Fayten Eldehaibi   | Pittsburgh, PA           | Jean Galati       | New Castle, PA           |
| Melissa Elder      | Marysville, PA           | Tom Gauntt        | Bensalem, PA             |
| Shannon Elliott    | Bensalem, PA             | Donna Gensler     | Pittsburgh, PA           |
| Erin Ellrod        | Bethel Park, PA          | Sandra Gerhart    | Reading, PA              |
| Kenneth Ellsperman | New Bloomfield, PA       | Margie Ghiardi    | AVONMORE, PA             |
| Leslie Engelmeier  | Wexford, PA              | Robert Gibb       | Homestead, PA            |
| George Erceg       | Natrona Heights, PA      | Kathi Gillin      | Yardley, PA              |
| George Erceg       | Natrona Heights, PA      | Florence Girvin   | Lancaster, PA            |
| Kathleen Espamer   | Camp Hill, PA            | Lynn Glielmi      | Lancaster, PA            |
| Char Esser         | Villanova, PA            | Matt Glinn        | Harrisburg, PA           |
| Sherlene Evans     | Reading, PA              | Sandra Goodwin    | Monroe Township, PA      |
| Margaretta Evans   | Strongstown, PA          | Timothy Gordon    | Williamsport, PA         |
| Jeanine Farrell    | Philadelphia, PA         | Susan Gottfried   | State College, PA        |
| Susan Faust        | Primos, PA               | Renee Grant       | Pen Argyl, PA            |
| Sabrina Fedel      | Pittsburgh, PA           | Kim Greene        | North Wales, PA          |

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|------------------------|----------------------|---------------------|--------------------|
| Pat Griffey            | Secane, PA           | Jan Hughes          | Reading, PA        |
| Barry Grossman         | Philadelphia, PA     | Merritt Hughes      | Doylestown, PA     |
| Eric Grote             | West Chester, PA     | Ashley Hunsberger   | Philadelphia, PA   |
| John Grundowski        | Allentown, PA        | Pat Hunter          | Greensburg, PA     |
| David Gunyuzlu         | Kennett Square, PA   | David Hursh         | Lewisburg, PA      |
| Amy Guskin             | Malvern, PA          | Bridget Irons       | Philadelphia, PA   |
| K H                    | Birdsboro, PA        | Felicity Jeans      | Kimberton, PA      |
| Suzanne Hall           | Mont Alto, PA        | Lara Jett           | Philadelphia, PA   |
| Margie Hall            | Lititz, PA           | Michele Johnson     | Altoona, PA        |
| Nina Hamilton          | Pittsburgh, PA       | Patti Johnson       | Perkasie, PA       |
| Joann Hamilton         | Lititz, PA           | Sherwood Johnson    | Gibsonia, PA       |
| Ronald Hammill         | Pittsburgh,, PA      | Karen Joslin        | Philadelphia, PA   |
| William Hance          | Media, PA            | Susan Joslyn        | Milford, PA        |
| Constantina Hanse      | Pittsburgh, PA       | Melissa K           | South Heights, PA  |
| Johanna Hantel         | Malvern, PA          | Barbra K            | Philadelphia, PA   |
| Patricia Harlow        | Plymouth Meeting, PA | Lori K              | Reading, PA        |
| Marilynn Harper        | Media, PA            | Tom Kahler          | Ephrata, PA        |
| Ciara Harper           | Harrisburg, PA       | Jean Kammer         | Hawley, PA         |
| Carol Harrison         | Bethel, PA           | David Kannerstein   | Lafayette Hill, PA |
| Brenda Hartman         | Reading, PA          | Elizabeth Karpinski | Norristown, PA     |
| Evan Hartman           | Philadelphia, PA     | Can Kashner         | Wyndmoor, PA       |
| Michael Hassler        | Reading, PA          | Leslie Kaufman      | Philadelphia, PA   |
| Martin Hecht           | Pittsburgh, PA       | Gerald Kaufman      | Philadelphia, PA   |
| Matt Heidenreich       | Canonsburg, PA       | Julie Kaye          | Emmaus, PA         |
| Lisa Heinz             | Lawrence, PA         | Lois Kendall        | Elkins Park, PA    |
| Jeanne Held-Warmkessel | North Wales, PA      | Chris Kerr          | Butler, PA         |
| Charles Hendzel        | Mc Kees Rocks, PA    | Wayne Kessler       | Norristown, PA     |
| Todd Henkelmann        | Allison Park, PA     | Heather Kester      | Berwick, PA        |
| Michelle Henry         | Greensburg, PA       | David Kichman       | Elysburg, PA       |
| Tina Herzog            | Slatington, PA       | Janis Kinslow       | Aston, PA          |
| Linda Higgins          | Flourtown, PA        | Karen Kirchdoerfer  | Orefield, PA       |
| Linda Hilf             | Cheswick, PA         | Karen Kirk          | Williamsport, PA   |
| Keith Hill             | Sinking Spring, PA   | Edward Kirshner     | Folsom, PA         |
| David Hinkes           | New Hope, PA         | Cynthia Kishinchand | Philadelphia, PA   |
| Audrey Hois            | Pittsburgh, PA       | Kelyn Klein         | Elverson, PA       |
| Dianna Holland         | Philadelphia, PA     | Joan Klein          | Gibsonia, PA       |
| John Holmes            | Paoli, PA            | Norma Kline         | Meadville, PA      |
| Jayne Holtman          | Philadelphia, PA     | Lynn Kline          | New Hope, PA       |
| Danielle Holubowski    | Nazareth, PA         | Patricia Knauss     | Allentown, PA      |
| Christine Hormuth      | Easton, PA           | Jo Ann Knight       | Fairfield, PA      |
| Laura Horowitz         | Pittsburgh, PA       | Douglas Koffler     | Vandergrift, PA    |
| Carol Huber            | Erie, PA             | Steve Kokol         | Wallingford, PA    |
| Judith Hughes          | Derry, PA            | Diane Krassenstein  | Phila, PA          |

|                    |                        |                      |                         |
|--------------------|------------------------|----------------------|-------------------------|
| Darla Kravetz      | Lehighton, PA          | Debra Marge          | Shamokin, PA            |
| Mercedes Ku        | Warminster, PA         | Eugene Mariani       | Pittsburgh, PA          |
| Diane Kuc          | Camp Hill, PA          | Rodney Martin        | Lititz, PA              |
| Len Kuch           | Lincoln University, PA | Jill Martin          | Collegeville, PA        |
| Sandi Kuglics      | Beaver, PA             | Grandma Carol Masden | Milton, PA              |
| Claudette Kulkarni | Pittsburgh, PA         | Paulina Mastryukov   | Bryn Mawr, PA           |
| Ed Kuszajewski     | Greensburg, PA         | Ronald Maxwell       | Lehighton, PA           |
| Joseph Lahm        | Somerset, PA           | Elaine McCabe        | WY, PA                  |
| John Lahr          | Pequea, PA             | Thomas McClellan     | Lafayette Hill, PA      |
| Summer Laing       | Bensalem, PA           | Katie McCorkle       | Mars, PA                |
| Liana Lang         | White Haven, PA        | Margaret McCourt     | Philadelphia, PA        |
| Daniel Lara        | Philadelphia, PA       | Kelli McCoy          | Boyertown, PA           |
| Hans Lashlee       | James Creek, PA        | Lorie McCracken      | Media, PA               |
| Kathy Lawless      | Harleysville, PA       | Maryllye McCue       | Philadelphia, PA        |
| Elizabeth Lefever  | Philadelphia, PA       | Nancy McCullough     | Drexel Hill, PA         |
| Bruce Leiby        | Media, PA              | Bobby Mcelroy        | Easton, PA              |
| Angela Leventis    | Philipsburg, PA        | Robin Mcfall         | Hermitage, PA           |
| Madalyn Levy       | Pittsburgh, PA         | M Mcgraw             | Philadelphia, PA        |
| Jeff Lewin         | Wallingford, PA        | Jackie Mcguire       | Pittsburgh, PA          |
| Felicia Lewis      | Philadelphia, PA       | Maureen Mchugh       | Chambersburg, PA        |
| Dorothy Li Calzi   | Philadelphia, PA       | Diane Mclaughlin     | Howard, PA              |
| Patricia Libengood | Erie, PA               | Sandy Mcneal         | UPPER CHICHESTER,<br>PA |
| Gretchen Linton    | Centre Hall, PA        | Michael Mcquown      | Philadelphia, PA        |
| Danielle Lion      | Upper Black Eddy, PA   | David Meade          | Apollo, PA              |
| Gina Lobiondo      | Havertown, PA          | Kevin Meehan         | Exeter, PA              |
| Donna Logan        | Erie, PA               | Tekku Meep           | Erie, PA                |
| Michael Lombardi   | Levittown, PA          | Debra Megela         | Wellsboro, PA           |
| Tiffani Long       | Lemoyne, PA            | Ronald Meredith      | Chambersburg, PA        |
| Charlene Longacre  | East Greenville, PA    | Gloria Merlino       | Kutztown, PA            |
| Robin Longenbach   | Danielsville, PA       | Donald Meserole      | Marietta, PA            |
| D.J. Lubonovich    | Franklin, PA           | Debra Metzger        | Irwin, PA               |
| Peter Luborsky     | Phoenixville, PA       | Jon Meyer            | Chambersburg, PA        |
| Kay Ludwig         | Philipsburg, PA        | Laurie Mielo         | CIAR Summit, PA         |
| Diane Lutz         | Allentown, PA          | Marian Liza Mientus  | Mount Pleasant, PA      |
| D M                | Enon Valley, PA        | Thomas Miller        | Dillsburg, PA           |
| Jan Macgregor      | Pittsburgh, PA         | Sam Miller           | Phoenixville, PA        |
| Rev Sandra Mackie  | Gettysburg, PA         | Michael Miller Jr    | Philadelphia, PA        |
| Nicholas Maddaloni | Anville, PA            | Janis Millu          | Franklin, PA            |
| Sally Magaziner    | Malvern, PA            | Daniel Mink          | Lancaster, PA           |
| Megan Manning      | Philadelphia, PA       | Karen Miyares        | Pittsburgh, PA          |
| Steve Manns        | Monroeville, PA        | John Monti           | Meadville, PA           |
| Laura Manz         | Ingomar, PA            | William Moore        | Wyncote, PA             |
| Stacey Marchig     | Upper Chichester, PA   |                      |                         |

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|----------------------|---------------------|--------------------|-------------------|
| Mary More            | Flourtown, PA       | Susan Porter       | Lords Valley, PA  |
| Bill Morgan          | Pottstown, PA       | Gregory Priano     | South Park, PA    |
| Bill Morgan          | Pottstown, PA       | Jennifer Quick     | Hummelstown, PA   |
| James Morrison       | Willow Grove, PA    | Frances Raab       | Quakertown, PA    |
| Karen Mothersbaugh   | Bellefonte, PA      | Suzan Ragan        | Pittsburgh, PA    |
| Kathleen Mueller     | Finleyville, PA     | Suzan Ragan        | Pittsburgh, PA    |
| Margi Mulligan       | Bryn Mawr, PA       | Marieelaina Rago   | Northampton, PA   |
| William Mulrennan    | Atlasburg, PA       | Marjorie Rathbone  | Bryn Mawr, PA     |
| Laura Murillo        | Glenside, PA        | Catherine Raymond  | Penn Valley, PA   |
| Janet Murray         | Philadelphia, PA    | Ahren Ream         | Kutztown, PA      |
| Linda Myers          | Petersburg, PA      | Sara Ream          | Conestoga, PA     |
| Rich Neill           | Bethel Park, PA     | Angel Recchia      | Philadelphia, PA  |
| Thomas Nelson        | Lansdowne, PA       | Jeffrey Reiferson  | EMMAUS, PA        |
| Crystal Newcomer     | Enola, PA           | Barbara Reitmeyer  | Mars, PA          |
| Kathleen Nicholas    | Pittsburgh, PA      | Leo Reitmeyer      | South Park, PA    |
| John H Nickey        | HANOVER, PA         | Christine Resch    | Whitehall, PA     |
| Nicola Nicolai       | Chester Springs, PA | Chris Reynolds     | South Park, PA    |
| Alexandria Nicoletti | Wilkes-Barre, PA    | Robert Rhodes      | Mercersburg, PA   |
| Linda Nossler        | Valley Forge, PA    | Linda Ricci        | Warminster, PA    |
| Evelyn Och           | Pittsburgh, PA      | Ron Richter        | Bethlehem, PA     |
| Ronald Olszewski     | Erie, PA            | Drusilla Rico      | Columbia, PA      |
| Levi Opsatnic        | Aliquippa, PA       | Willam Ridgeway    | Scranton, PA      |
| Diane Osgood         | Hollidaysburg, PA   | Kelly Riley        | Hatfield, PA      |
| David Ostwald        | Laceyville, PA      | Anne Ritchings     | Philadelphia, PA  |
| Tina Paloskey        | Julian, PA          | Bob Roach          | Pittsburgh, PA    |
| Zsuzsa Palotas       | Warrington, PA      | Jack Roberts       | Lancaster, PA     |
| Gene Parsons         | Sewickley, PA       | Chris Roche        | Reading, PA       |
| Ashley Partridge     | Erie, PA            | Alison Rogers      | Collegeville, PA  |
| Eric Pash            | IN, PA              | Kristy Roggio      | Stroudsburg, PA   |
| Diana Patton         | Munhall, PA         | Stephen Rosen      | Ivyland, PA       |
| Tom Pavelchek        | COATESVILLE, PA     | Pauline Rosenberg  | Philadelphia, PA  |
| Lee Paxton           | Coraopolis, PA      | Donald Rosenberger | Three Springs, PA |
| Beverly Peake        | New Oxford, PA      | Berte Rosin        | Garnet Valley, PA |
| Christian Pelusi     | Pittsburgh, PA      | Berte Rosin        | Garnet Valley, PA |
| Joanne Petaccio      | Harleysville, PA    | Robert Rossachacj  | Glenolden, PA     |
| Kathleen Peters      | Philadelphia, PA    | Patricia Rossi     | Levittown, PA     |
| James Phipps         | Collegeville, PA    | Jeanne Rothwarf    | Philadelphia, PA  |
| Kim Pierro-Greene    | North Wales, PA     | Diane Sadowski     | Pittsburgh, PA    |
| Jon Piersol          | Wexford, PA         | Allison Saft       | PHILADELPHIA, PA  |
| Emily Pitner         | Washington, PA      | Annmarie Sardineer | Trafford, PA      |
| Mary Pivarnik        | New Castle, PA      | Joan Satkowski     | Dupont, PA        |
| Daphne Pleasonton    | Doylestown, PA      | Andrea Saunders    | Sellersville, PA  |
| Ted Pomerantz        | Philadelphia, PA    | Anthony Sauro      | Southampton, PA   |

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|------------------------|--------------------------|---------------------|----------------------|
| Frank Schaller         | Whitehall, PA            | Josh Staquet        | Royersford, PA       |
| Amanda Schlegel        | Columbia, PA             | Heidi Steffy        | Erie, PA             |
| Glenn Schlippert       | Etters, PA               | Bob Steininger      | Phoenixville, PA     |
| Kathy Schnare          | Yardley, PA              | Ashleigh Stephenson | Hermitage, PA        |
| Edward Schneider       | Philadelphia, PA         | Sheila Stevens      | Fort Washington, PA  |
| David Schnitzler       | East Stroudsburg, PA     | Samuel Stevens      | Mechanicsburg, PA    |
| Courtney Schnitzler    | E STROUDSBURG, PA        | Mary Va Stieb-Hales | Gwynedd, PA          |
| Louie Scottoline       | West Chester, PA         | Mj Stigliano        | Bushkill, PA         |
| Monika Seegler         | New Kensington, PA       | John Stofko         | Allentown, PA        |
| Kimberly Seger         | Kittanning, PA           | Anne Storey         | Lititz, PA           |
| Diane Selvaggio        | Gibsonia, PA             | George Stradtman    | Elkins Park, PA      |
| Mary Jean Sharp        | Altoona, PA              | Darren Strain       | Brookhaven, PA       |
| Karen Sharrar          | Philadelphia, PA         | Laurie Strine       | Kennett square, PA   |
| Joe Shaw               | Quakertown, PA           | Mary Ellen Sullivan | Philadelphia, PA     |
| Michele Shawaluk       | Feasterville Trevose, PA | Laura Surowka       | Mars, PA             |
| Ruth Sheets            | Brookhaven, PA           | Carrie Swank        | Sinking Spring, PA   |
| B Shimer               | Norristown, PA           | Sheila Sykes-Gatz   | West Chester, PA     |
| Tara Showalter         | Bernville, PA            | Peter Tafuri        | Fleetville, PA       |
| Eileen Shupak          | Philadelphia, PA         | Anna Tangi          | Philadelphia, PA     |
| Jim Sidey              | Athens, PA               | Garry Taroli        | Wilkes Barre, PA     |
| Sheila Siegel          | Philadelphia, PA         | Linda Taylor        | Bensalem, PA         |
| Maria Siegert          | Newtown Square, PA       | Arlene Taylor       | Harrisburg, PA       |
| Ira Silverman          | West Grove, PA           | Cassandra Tereschak | Scranton, PA         |
| Barbara Simonds        | Chadds Ford, PA          | Terry Terzuolo      | Jeffersonville, PA   |
| Heather Simons         | New Milford, PA          | Susan Thompson      | Audubon, PA          |
| Dallas Slagle          | Richeyville, PA          | Carol Thompson      | South Park, PA       |
| Donna Smith            | Havertown, PA            | James Thompson      | Knox, PA             |
| Christopher Smith      | Birdsboro, PA            | Edward Thornton     | Swarthmore, PA       |
| J.T. Smith             | Sellersville, PA         | Judy Tiberi         | Butler, PA           |
| Robert Smith           | East York, PA            | Robert Tonkin       | Highspire, PA        |
| Timothy Smith          | Erie, PA                 | Gwendolyn Torres    | Wyncote, PA          |
| Linda Smith            | Easton, PA               | Dat Tran            | Upper Darby, PA      |
| Riley Smith            | Doylestown, PA           | Wayne Truax         | Dillsburg, PA        |
| Nadine Snedeker        | Wilkes Barre, PA         | Jill Turco          | Philadelphia, PA     |
| Laurie Sobel           | Lansdale, PA             | Leann Turley        | West Decatur, PA     |
| David Somers           | York, PA                 | Kathy Turner        | Clearfield, PA       |
| Irene Souder-Coyle     | Lansdale, PA             | Lindsey Turner      | West Chester, PA     |
| Eileen Southwick       | Scranton, PA             | Brenda Uhler        | Landisburg, PA       |
| David Spiegel          | Swarthmore, PA           | Richard Van Aken    | Southampton, PA      |
| Wilson L Sproehnle lii | Philadelphia, PA         | Beth Vanburen       | Plymouth Meeting, PA |
| Stephen Stales         | Phila, PA                | Donna D Varcoe      | Bellefonte, PA       |
| Joanne Stamm           | Kutztown, PA             | M Vlah              | Ellwood City, PA     |
| Chris Stanton          | Rutledge, PA             | Daniel Volpatti     | Pittsburgh, PA       |



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|-----------------------|--------------------|----------------------|----------------------|
| Genie Von Poppe       | Honesdale, PA      | Thomas Armstrong     | Riverside, RI        |
| Anne W                | State College, PA  | K Bonoyer            | Chepachet, RI        |
| Mark Wagner           | Bechtelsville, PA  | David Bouchard       | Warwick, RI          |
| Nancy Wagner          | Erie, PA           | Michael Caputo       | Greenville, RI       |
| David Walker          | Philadelphia, PA   | Margaret Cole        | Cranston, RI         |
| Jack Walters          | New Albany, PA     | Lynn Costa           | Warwick, RI          |
| Christine Walton      | Cecil, PA          | Beatrice Costagliola | North Providence, RI |
| Crissi Walturz        | Easton, PA         | Debra Daigneault     | Warwick, RI          |
| Whitney Wandelt       | Philadelphia, PA   | Thomas Dawley        | North Kingstown, RI  |
| Zoe Warner            | Malvern, PA        | Robyn Deciccio       | Warwick, RI          |
| Pamela Wassell        | Erie, PA           | Sandra Denninger     | Tiverton, RI         |
| David Way             | Pottstown, PA      | John Doucette        | Providence, RI       |
| Alan Wayne            | Bensalem, PA       | Norman Dupont        | Warwick, RI          |
| Helen Webb            | Philadelphia, PA   | Jonathan Faria       | Bristol, RI          |
| Deb Weise             | Denver, PA         | Maxim Fetissenko     | Providence, RI       |
| Jo Weiss              | Wayne, PA          | Kelly Fiske          | Mapleville, RI       |
| Joan Welte            | Philadelphia, PA   | Joan Furtado         | East Providence, RI  |
| Patricia Wendell      | Jeannette, PA      | Albert Gamble        | Jamestown, RI        |
| Taylor West           | Philadelphia, PA   | Katherine Gibson     | Carolina, RI         |
| William P. White      | Bryn Mawr, PA      | Ellen Goodman        | Providence, RI       |
| Elizabeth White       | PETERSBURG, PA     | Cheryl Gorman        | West Warwick, RI     |
| Jean Wiant            | Glenolden, PA      | Noah Hanmer          | Bristol, RI          |
| Kevin Wiker           | Phoenixville, PA   | Brooke Harris        | West Warwick, RI     |
| Andrew M. Wilson      | PHILADELPHIA, PA   | George Hasapidis     | Foster, RI           |
| Donald Wilson         | Philadelphia, PA   | Nancy Hindermann     | Newport, RI          |
| Linda Winchester      | Norristown, PA     | Pearl Holloway       | Warwick, RI          |
| Gary Witmer           | Lititz, PA         | Paul Hoover          | Providence, RI       |
| Stacy Woeppel         | Newfoundland, PA   | Kayla Hyman          | Newport, RI          |
| Mara Wolfgang         | Philadelphia, PA   | Dianah Jackson       | Providence, RI       |
| Lily Wong             | Harleysville, PA   | Carolyn James        | N. Providence, RI    |
| Debra Wontor          | Lords Valley, PA   | Raffaella Kane       | Burrillville, RI     |
| Frances Woo           | Stroudsburg, PA    | Jacquelyn Kanis      | South Kingstown, RI  |
| Dani Workman          | Houston, PA        | Tracy Kanno          | Cranston, RI         |
| Sharon Wushensky      | Kennett Square, PA | Thomasin Kellermann  | Cumberland, RI       |
| James Yarsky          | FOMBELL, PA        | Mark Kern            | Lincoln, RI          |
| Sallyann Yohn         | Sunbury, PA        | Dana Linder          | Woonsocket, RI       |
| John Young            | Pocono Manor, PA   | Matt Loper           | Tiverton, RI         |
| Andrea Young          | Muncy, PA          | Christine Lyons      | Johnston, RI         |
| Maria Zambrano        | Philadelphia, PA   | Michael Middelmeer   | Providence, RI       |
| Angela Zebo-Hosterman | Bellefonte, PA     | Dan Novak            | West Greenwich, RI   |
| Sam Zellefrow         | Verona, PA         | Kathy Obrien         | Warwick, RI          |
| Steven Zimmerman      | Pine Grove, PA     | Sonja Plumb          | Warwick, RI          |
| Deborah Zubow         | Philadelphia, PA   | Peggy Powell         | Providence, RI       |

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|---------------------|---------------------|----------------------|------------------------|
| Christine Preliasco | North Kingstown, RI | Christopher Galton   | Myrtle Beach, SC       |
| Allen Price         | Cranston, RI        | Linda Geddings       | Blythewood, SC         |
| Andrea Schnitzler   | West Warwick, RI    | Steve Gilbert        | Charleston, SC         |
| Janet Schoolcraft   | Smithfield, RI      | Jerri Gingrich       | Myrtle Beach, SC       |
| Carol Spano         | Cranston, RI        | William Golod        | Charleston, SC         |
| Katharine Stark     | Warwick, RI         | Pamela Haas          | Okatie, SC             |
| Ann Suter           | Kingston, RI        | Caroline Hair        | Columbia, SC           |
| Joan Tokarz         | Bristol, RI         | Whitney Hardin       | York, SC               |
| Lynn Tower          | Mapleville, RI      | Sara Hart            | North Myrtle Beach, SC |
| Pia Vartabedian     | Cranston, RI        | Jordan Hayes         | Camden, SC             |
| Ashley Wapenski     | Foster, RI          | Peter Henze          | Beaufort, SC           |
| Lynn Arnheim        | Beaufort, SC        | Henrietta Hight      | Greenville, SC         |
| Tyler Atkinson      | Simpsonville, SC    | Ryan Hodge           | Sumter, SC             |
| Adrianna Aylard     | Columbia, SC        | Marc Howard          | Mount Pleasant, SC     |
| S B                 | Ladson, SC          | Meg Hunt             | Taylors, SC            |
| Ledlie Bell         | Charleston, SC      | Tara Johns           | Lexington, SC          |
| Esterina Bodarky    | Sumter, SC          | Andrea Kaniarz       | Lexington, SC          |
| Helen Boehme        | Summerville, SC     | M F Kite             | Mount Pleasant, SC     |
| Caroline Boston     | Bluffton, SC        | Judith Knouff        | Clover, SC             |
| Steve Brennan       | Mt Pleasant, SC     | Staci Kuester        | Roebuck, SC            |
| Donna Brooks        | Townville, SC       | Jim Lambeth          | Chapin, SC             |
| Kevin Carder        | Columbia, SC        | Marina Lear          | Mount Pleasant, SC     |
| Kristin Carstarphen | Charleston, SC      | Lorre Leckie         | Murrells Inlet, SC     |
| Bernice Cashman     | Columbia, SC        | Regina Lester        | Mullins, SC            |
| Cynthia Chen        | Chapin, SC          | Lc Linder            | West Columbia, SC      |
| Brian Close         | Charleston, SC      | Connie Lippert       | Seneca, SC             |
| Hilary Colacino     | Clemson, SC         | Cynthia Looney       | Summerville, SC        |
| Edgar Cornelius     | Surfside Beach, SC  | Patricia Luck        | Johns Island, SC       |
| Phyllis Cramer      | Myrtle Beach, SC    | Terri Lynch          | Pendleton, SC          |
| Nanci Crosbie       | Myrtle Beach, SC    | Christopher Marcille | Clover, SC             |
| Jim Crowley         | Lake City, SC       | Ellen Martell        | Greenville, SC         |
| Bobbie Daniels      | Camden, SC          | William Mccullough   | Chapin, SC             |
| Patricia Daquino    | Myrtle Beach, SC    | Phoebe Mcleod        | Columbia, SC           |
| Barbara Darnell     | Union, SC           | Jim Melton           | Indian Land, SC        |
| Amber Davidson      | Columbia, SC        | David Mikell         | Charleston, SC         |
| Robert Dearborn     | MYRTLE BEACH, SC    | Cheryl Militello     | Greenville, SC         |
| Mary Derrico        | Murrells Inlet, SC  | Jan Modjeski         | Murrells Inlet, SC     |
| Kit Dugan           | Greenville, SC      | Greg Nicholas        | Charleston, SC         |
| Melanie Faulkner    | Anderson, SC        | Charleen Ounsworth   | Taylors, SC            |
| Debbie Flynn        | Conway, SC          | Theresa Owens        | Mount Pleasant, SC     |
| Jason Fricker       | Charleston, SC      | Linda Parlo          | Mt Pleasant, SC        |
| John Friestad       | Conway, SC          | Richard Perras       | Myrtle Beach, SC       |
| John Friestad       | Conway, SC          | D Polite             | Bluffton, SC           |

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|----------------------|-------------------------|---------------------|------------------|
| Sandra Is Porter     | North Myrtle Beach, SC  | Marianne Bentley    | Nashville, TN    |
| Maryrose Randall     | Rock Hill, SC           | Jason Black         | Nashville, TN    |
| Roberta Reynes       | Saint Helena Island, SC | Veronica Bourassa   | Evensville, TN   |
| Ronda Reynolds       | Columbia, SC            | Rhonda Bradley      | Crossville, TN   |
| Ryan Robidoux        | Columbia, SC            | William Brisolaro   | Memphis, TN      |
| Karen Rome           | Moore, SC               | Mary Bristow        | Brentwood, TN    |
| Marianne Salamone    | Summerville, SC         | Flavia Brizio       | Knoxville, TN    |
| Stephanie Sallee     | Simpsonville, SC        | Quinn Brown         | Maryville, TN    |
| Saskia Santos        | Columbia, SC            | Sandra Burnett      | Nashville, TN    |
| John Schenck         | Camden, SC              | Chris Busby         | Watertown, TN    |
| Allyn Schneider      | Hilton Head Island, SC  | David Butler        | Hermitage, TN    |
| Danielle Schneider   | Pickens, SC             | John Chase          | Memphis, TN      |
| Margaret Sexauer     | Pelzer, SC              | Marilee Chipoletti  | Pegram, TN       |
| Paul Siegel          | Mount Pleasant, SC      | Sandra Cline        | Knoxville, TN    |
| James Sprouse        | Iva, SC                 | Robert Cobb         | Knoxville, TN    |
| Linda Teachey        | Okatie, SC              | Joyce Coombs        | Corryton, TN     |
| D Thomas             | Irmo, SC                | Jared Cowan         | Cowan, TN        |
| Rebecca Thomason     | Greenville, SC          | Ann Coz             | Nashville, TN    |
| Peggy Thompson       | Columbia, SC            | Connie Cranford     | Mc Ewen, TN      |
| Carol Tucker         | Greenville, SC          | Rebecca Crea        | Fairview, TN     |
| Stephanie Vanderpool | Myrtle Beach, SC        | Matt Cutts          | Greeneville, TN  |
| Anna Victoria        | Columbia, SC            | Tara D              | Nashville, TN    |
| Gretchen Waltemire   | Charleston, SC          | Chris Dacus         | Bell Buckle, TN  |
| Elizabeth Watson     | Hilton Head Island, SC  | Jennifer Dandrea    | Columbia, TN     |
| Christine Wheeler    | Columbia, SC            | Cheryl Dare         | Memphis, TN      |
| Judith Wiseman       | Aiken, SC               | Patricia Davenport  | Knoxville, TN    |
| Bradley Wiseman      | Mount Pleasant, SC      | Dianne Doochin      | Nashville, TN    |
| Julie Anderson       | Rapid City, SD          | Craig Drew          | Chattanooga, TN  |
| Larry Gauer          | MARTIN, SD              | Chris Drumright     | Murfreesboro, TN |
| Julie Hansen         | Freeman, SD             | Debi Dunson         | Spring Hill, TN  |
| Peggy Jakopak        | Scotland, SD            | Denise Dunzweiler   | Ooltewah, TN     |
| Cara McClure         | Box Elder, SD           | Eve Duplissis       | Cleveland, TN    |
| Dawn Pesicka         | Sioux Falls, SD         | Jackie Edmondson    | Johnson City, TN |
| Eric Sivertson       | Sioux Falls, SD         | Donna Edwards       | New Tazewell, TN |
| Barbara Addis        | Knoxville, TN           | Harriet Elder Elder | Nashville, TN    |
| Meagan Allen         | Knoxville, TN           | Margaret Feurer     | Chattanooga, TN  |
| Deborah Allison      | Shelbyville, TN         | Robert Fingerman    | Monteagle, TN    |
| Robert Amerman       | Bulls Gap, TN           | Jean Finney         | Smyrna, TN       |
| John Andes           | Mount Juliet, TN        | Cherie Free         | Knoxville, TN    |
| Rosalind Andrews     | Knoxville, TN           | Adrienne Frey       | Franklin, TN     |
| Jim Barritt          | Shelbyville, TN         | Cherie Gaines       | Spring Hill, TN  |
| Jessica Batty        | Nashville, TN           | Brenda Gamache      | Seymour, TN      |
| Dara Bennett         | Smyrna, TN              | Pete Garland        | Chattanooga, TN  |

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|--------------------|---------------------|--------------------|-----------------------|
| Richard Gillaspie  | Nashville, TN       | Kent Minault       | Knoxville, TN         |
| Calah Gipson       | Nashville, TN       | Kathleen Mohning   | Franklin, TN          |
| Barry Goodspeed    | Jefferson City, TN  | Nickole Moore      | Chattanooga, TN       |
| Vikki Hallen       | Granville, TN       | Kevin Morris       | Jacks Creek, TN       |
| Rebecca Halperin   | Oak Ridge, TN       | Tonya Morrison     | Normandy, TN          |
| Robin Happel       | Johnson City, TN    | Harry Mozen        | Johnson City, TN      |
| Karl Harris        | Collierville, TN    | Liz Murphy         | Lafayette, TN         |
| Missy Harris       | Nashville, TN       | Teresa Murphy      | Manchester, TN        |
| Mike Harrison      | Knoxville, TN       | Phyllis Newburn    | Jackson, TN           |
| Bobbie Hensley     | Greeneville, TN     | Joann Nolte        | Memphis, TN           |
| Earl Hereford      | Walden, TN          | Megan Odle         | Waverly, TN           |
| Dottie Herendon    | CIARville, TN       | Sharon Okeefe      | Monterey, TN          |
| Pia Heyn           | Chattanooga, TN     | Elizabeth Osborne  | Knoxville, TN         |
| Toya Hibbs         | Clarkrange, TN      | Charlie Palmgren   | Franklin, TN          |
| Kathryn Hill       | Maryville, TN       | Marjorie Pasch     | Hixson, TN            |
| Barbara Hipps      | Memphis, TN         | Melissa Pearson    | Kingsport, TN         |
| Stacey Holliday    | Chattanooga, TN     | Susan Peebles      | Pleasant Hill, TN     |
| Shelby Hood        | Franklin, TN        | Suzanne Peters     | Knoxville, TN         |
| David Hricenak     | Cedar Hill, TN      | Brian Peters       | Knoxville, TN         |
| Sarah Hurd         | Johnson City, TN    | Christopher Peters | Knoxville, TN         |
| Linda Inness       | Philadelphia, TN    | Ralph Plumlee      | Millington, TN        |
| Teresa Iovino      | Germantown, TN      | Neil Prater        | Jackson, TN           |
| Ruth Jackson       | Knoxville, TN       | Laura Prestridge   | Memphis, TN           |
| Lawrence Jasud     | Memphis, TN         | Diane Price        | Antioch, TN           |
| Stafford Johnson   | Johnson city, TN    | Linda Purser       | Memphis, TN           |
| Michelle Jones     | Hixson, TN          | Sharghi Rahmanian  | Knoxville, TN         |
| Aaron Kelly        | Johnson City, TN    | Ava Rainey         | Mount Juliet, TN      |
| Bruce Kittle       | Nashville, TN       | Victoria Randall   | Memphis, TN           |
| Mark Klugiewicz    | Jamestown, TN       | Corina Ravenscraft | CIARville, TN         |
| Anthony Lease      | Signal Mountain, TN | Mary Reed          | Lancing, TN           |
| Karen Lebov-Keeler | Memphis, TN         | Alan Rhody         | Nashville, TN         |
| Cindy Linney       | Collierville, TN    | John Rice          | Crossville, TN        |
| Jean Lofton        | Memphis, TN         | Rick Rinaldi       | Strawberry Plains, TN |
| Stephen Luptak     | Memphis, TN         | Eric Robinson      | Memphis, TN           |
| Rodney Lynch       | Washburn, TN        | Sarah Rowe         | Nashville, TN         |
| Amy M              | Rogersville, TN     | Elizabeth Sanger   | Nashville, TN         |
| Frances M          | Rogersville, TN     | Jocelyn Selles     | CIARville, TN         |
| Deborah Mangrum    | Dickson, TN         | Tonya Sexton       | Kingsport, TN         |
| Karen Mcconkey     | Knoxville, TN       | Paula Simmons      | Cookeville, TN        |
| Lecil Mcglocklin   | Bluff City, TN      | Teresa Smith       | Murfreesboro, TN      |
| Carrie Megill      | Murfreesboro, TN    | Kathy Smythe       | Nashville, TN         |
| Kirsten Meister    | Loudon, TN          | Brett Soden        | Lawrenceburg, TN      |
| Ben Merickle       | Lebanon, TN         | Mark Standon       | La Vergne, TN         |

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|---------------------|---------------------|-------------------------|--------------------------|
| Vance Sterling      | Tallasee, TN        | Sarah Avery             | Houston, TX              |
| Andrea Tatum        | Martin, TN          | Aurelia B               | Dallas, TX               |
| James Taylor        | CIARville, TN       | John Babiarz            | Dallas, TX               |
| James Thoman        | Hermitage, TN       | Donna Bachler           | San Antonio, TX          |
| Curtis Tomlin       | Chattanooga, TN     | Paul Bae                | Katy, TX                 |
| Patricia Tudor      | Surgoinsville, TN   | Michelle Bafik-Vehslage | San Antonio, TX          |
| Gina Turner         | Memphis, TN         | Barbara Baggett         | Utopia, TX               |
| Kevin Vaught        | Antioch, TN         | Nancy Baise             | Houston, TX              |
| Michele Villeneuve  | Kingsport, TN       | Freda Ballas            | Dallas, TX               |
| Pam Wallace         | Greeneville, TN     | Raymond Baranek         | Brownsville, TX          |
| Christie Walters    | Nashville, TN       | Robert Barnes           | The Woodlands, TX        |
| Paulette Walton     | Butler, TN          | Donna Barras            | Dripping Springs, TX     |
| Bryan Waring        | Nashville, TN       | Rowan Barrie            | Fort Worth, TX           |
| Rita Warner         | Greenback, TN       | Cindy Bassham           | Richardson, TX           |
| Grady Warren        | Lawrenceburg, TN    | Paula Battles           | Dallas, TX               |
| Alexander Whittle   | Madison, TN         | Karen Baum              | Palestine, TX            |
| William Williams    | Clinton, TN         | Antonio Bayona          | El Paso, TX              |
| Bonny Wint          | Apison, TN          | Viktoria Beck           | Austin, TX               |
| Arielle Wolff       | KNOXville, TN       | Taylor Belshaw          | Garland, TX              |
| Jonathan Woodward   | Knoxville, TN       | Barbara Benigno         | Lake Jackson, TX         |
| Paul Zamek          | Nashville, TN       | Linda Berger            | Fort Worth, TX           |
| Alison Abbott       | Spring, TX          | David Berry             | Dallas, TX               |
| Evelyn Adams        | Mckinney, TX        | Robert Beverly          | Orange, TX               |
| Sarah Adams         | College Station, TX | Kathleen Beverly        | Pipe Creek, TX           |
| Nancy Adams Chapman | Dallas, TX          | Gary Binderim           | Kingwood, TX             |
| Soria Adibi         | Arlington, TX       | Jocelyn Blackwell       | Kempner, TX              |
| Ashley Alaniz       | Odessa, TX          | Frank Blake             | Houston, TX              |
| Jeran Alexander     | Richardson, TX      | Mark Blandford          | Amarillo, TX             |
| Paul Alfieri        | San Antonio, TX     | Micheal Blankenship     | Dallas, TX               |
| Kimberly Allen      | Dallas, TX          | Edra Bogucki            | Beaumont, TX             |
| Kambra Allen        | Austin, TX          | Beverly Boling          | Houston, TX              |
| Romalda Allsup      | Austin, TX          | Joan Bonnington         | Houston, TX              |
| Benjamin Alpers     | Austin, TX          | Patrick Boot            | Dallas, TX               |
| Lynda Alvarez       | Arlington, TX       | Omar Boumali            | El Paso, TX              |
| Morgan Ambrose      | Dallas, TX          | Ken Box                 | Austin, TX               |
| Ana Andrade         | El Paso, TX         | Nick Brannan            | Houston, TX              |
| Sherry Andresen     | Katy, TX            | Katherine Brannon       | Pflugerville, TX         |
| Stamo Andrews       | Pleasanton, TX      | Sandra Breakfield       | Dallas, TX               |
| Carlos Aramayo      | Richardson, TX      | Hollye Bright           | North Richland Hills, TX |
| Laura Aranda        | San Antonio, TX     | Kathy Brookes           | Lubbock, TX              |
| Glory Arroyos       | Austin, TX          | Bari Brookman           | Ft Worth, TX             |
| Georgena Askew      | El Paso, TX         | Dorothy Brooks          | Arlington, TX            |
| Sarah Auclair       | Athens, TX          | Jessi Brown             | Houston, TX              |

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|---------------------|----------------------|--------------------------------|-------------------|
| Alison Brown        | Friendswood, TX      | Maryrose Cimino                | Dallas, TX        |
| Leigh Brown         | Fischer, TX          | Leta Clarke                    | Carrollton, TX    |
| Edith Brown         | Irving, TX           | Teri Coker                     | Mckinney, TX      |
| Charity Brown       | Lake Dallas, TX      | Sheila Collins                 | Dallas, TX        |
| Chris Brunner       | Allen, TX            | Kelly Conyers                  | Dallas, TX        |
| Ivy Buchanan        | Austin, TX           | Jo Cook                        | Dallas, TX        |
| Mike Buescher       | Lewisville, TX       | Gary Cook                      | Austin, TX        |
| Bruce Burns         | Austin, TX           | Stephanie Cormier              | Dallas, TX        |
| Jared Burns         | Houston, TX          | Sandra Costa                   | Texas, TX         |
| Sandra Burson       | Humble, TX           | Nancy Craker                   | Bedford, TX       |
| Julie Bush          | Corpus Christi, TX   | Analisa Crandall               | Adkins, TX        |
| Claire Bush         | Austin, TX           | Stephen Crane                  | PAIGE, TX         |
| Brian Bustoz        | Houston, TX          | Roland Creswell                | Fort Worth, TX    |
| Raquel Buxton       | Houston, TX          | Adriana Crisan                 | Round Rock, TX    |
| Lindsay Byrne       | San Antonio, TX      | Sarah Crowder                  | Houston, TX       |
| Victor Calderon     | Fort Worth, TX       | Cynthia Curtis                 | Garland, TX       |
| Carolina Camarillo  | Laredo, TX           | Susan Cutler                   | Spicewood, TX     |
| Jean Cameron        | College Station, TX  | Daniel D                       | San Antonio, TX   |
| Koral Campbell      | Houston, TX          | Izabella Dabrowski             | Austin, TX        |
| Sandra Cantrell     | Eastland, TX         | Mark Daniels                   | Galveston, TX     |
| Roger Cantu         | Laredo, TX           | Deann Darling                  | Arlington, TX     |
| Sally Capps         | Mason, TX            | Randy Daugherty                | Tyler, TX         |
| Alejandra Cardona   | Edinburg, TX         | Patrick De La Garza Und Senkel | Mcallen, TX       |
| Madalynn Carey      | San Antonio, TX      | Janet Delaney                  | Austin, TX        |
| Diane Carmona       | Live Oak, TX         | James Deleon                   | Plano, TX         |
| Cheryl Carney       | San Antonio, TX      | Jackie Demarais                | Whitehouse, TX    |
| Bernie Carpenter    | Houston, TX          | Linda Deschaine                | Richmond, TX      |
| Donna Cartwright    | League City, TX      | Sarah Desousa                  | Spring Branch, TX |
| Paul Carvalho       | Liberty Hill, TX     | Cheryl Devens                  | Longview, TX      |
| Jessie Casteel      | Houston, TX          | Rainbow Di Benedetto           | Austin, TX        |
| Judy Castillo       | Kyle, TX             | Nadia Diaz                     | Midland, TX       |
| Mary Cato           | Arlington, TX        | Marchello Diaz                 | Bandera, TX       |
| Becky Chambers      | Garland, TX          | Rebecca Dietrick               | Woodway, TX       |
| Donna Charter       | Arlington, TX        | Jacquelyn Dingley              | Austin, TX        |
| Steve Chelewski     | San Antonio, TX      | Joyce Dixon                    | Dallas, TX        |
| Debbie Chendanda    | Frisco, TX           | Sarah Dorst                    | El Paso, TX       |
| Judith Cherry       | Spring, TX           | Sarah Dorst                    | El Paso, TX       |
| Cathy Chesser       | Houston, TX          | Peggy Downing                  | Tyler, TX         |
| Lauren Chiong       | Fort Worth, TX       | Tim Duda                       | San Antonio, TX   |
| Jane Chischilly     | Atlanta, TX          | Elizabeth Duvert               | Bergheim, TX      |
| Suah Choi           | Austin, TX           | Ruth Dyke                      | Austin, TX        |
| Andrea Christgau    | Keller, TX           | Caitlin Eaton                  | Pearland, TX      |
| Gerald Christiansen | Dripping Springs, TX | Sabrina Eckles                 | Lubbock, TX       |

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|-------------------|--------------------|--------------------|------------------------|
| David Edmondson   | McKinney, TX       | Frederick Glazier  | Houston, TX            |
| Chantal Eldridge  | Austin, TX         | Emma Goode-Deblanc | Spring, TX             |
| Daphne Endress    | Katy, TX           | Mark Goodman       | Dallas, TX             |
| Cindy Engel       | Dallas, TX         | Martha Gorak       | Katy, TX               |
| Sara Engelland    | Austin, TX         | Delia Gordon       | Katy, TX               |
| Audrey Enriquez   | El Paso, TX        | Delwin Goss        | Austin, TX             |
| Laura Esparza     | San Antonio, TX    | Sarah Gracey       | Dallas, TX             |
| Debra Espinoza    | El Paso, TX        | Gary Graham        | Plantersville, TX      |
| Melissa Esqueda   | Converse, TX       | Alexander Grant    | Conroe, TX             |
| Pam Evans         | Kemp, TX           | Bill Gravelle      | Shavano Park, TX       |
| David Evans       | Cedar Park, TX     | Janice Greenberg   | Laredo, TX             |
| Mike Everett      | Lubbock, TX        | Debra Greenberg    | Lewisville, TX         |
| Maureen Falcon    | Sugar Land, TX     | Linda Greene       | Houston, TX            |
| Morwenna Farell   | Bastrop, TX        | Michael Gregg      | Azle, TX               |
| Evan Fausett      | Keller, TX         | Joanne Groshardt   | Richardson, TX         |
| Norma Feagin      | Austin, TX         | Debra Guel         | Austin, TX             |
| Lauren Fenenbock  | El Paso, TX        | Judy Haas          | Houston, TX            |
| Mark Fickert      | Dallas, TX         | Deb Hahn           | Dallas, TX             |
| Ed Fiedler        | Austin, TX         | Donna Hahus        | Houston, TX            |
| Linda Fielder     | Carrollton, TX     | John Haller        | Brownsville, TX        |
| Teresa Fields     | Weatherford, TX    | Peter Hancock      | Austin, TX             |
| Mike Fisher       | KINGWOOD, TX       | Terry T Hares      | Dallas, TX             |
| Gregg Fletcher    | Frisco, TX         | Lucy Harmon        | Lindale, TX            |
| Mackenzie Foutz   | Georgetown, TX     | Shirlene Harris    | San Antonio, TX        |
| Elizabeth Fox     | Austin, TX         | Jeremy Hart        | Houston, TX            |
| Jennifer Fox      | Fort Worth, TX     | Caroline Hartung   | Katy, TX               |
| Stacey Francis    | Austin, TX         | Melinda Hebert     | Houston, TX            |
| Linda Frankel     | Hurst, TX          | Melissa Heithaus   | Richardson, TX         |
| Karen Freeman     | San Antonio, TX    | Britlin Hemingway  | Austin, TX             |
| Nancy Freyer      | Houston, TX        | Dorothy Henry      | Houston, TX            |
| Ann Friedman      | Taylor, TX         | Gaylyn Herff       | Wharton, TX            |
| Roman Fruth       | San Antonio, TX    | Tonie Hernandez    | San Antonio, TX        |
| Nancy Fullerton   | San Antonio, TX    | Ana Herrero        | San Antonio, TX        |
| Leannah Fulmer    | Georgetown, TX     | Amanda Heske       | Junction, TX           |
| Chad Fuqua        | Houston, TX        | Linda Heuer        | EL PASO, TX            |
| Heather Galbraith | Little Elm, TX     | J. Hicks           | Weatherford, TX        |
| Nancy Gallegos    | Round Rock, TX     | Donna Hilbig       | Bryan, TX              |
| Rose Gansle       | Corpus Christi, TX | John Hill          | San Antonio, TX        |
| Paula Garcia      | Leander, TX        | Hannah Hinton      | Allen, TX              |
| Kim George        | DeSoto, TX         | Frank Hobin        | Winnsboro, TX          |
| Kathy Gibbs       | New Braunfels, TX  | William Hoenes     | South Padre Island, TX |
| Keely Gililland   | Fort Worth, TX     | Kimberly Holborn   | Grapevine, TX          |
| Jc Girdner        | Houston, TX        | Jennifer Holburn   | Dallas, TX             |

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|-------------------|--------------------|------------------------|----------------------|
| Linda Hollar      | Dallas, TX         | Christian Kurtz        | Austin, TX           |
| Amanda Holt       | Wylie, TX          | Jan Kutchen            | San Antonio, TX      |
| Lisa Hood         | Little Elm, TX     | Hooman Larimi          | Austin, TX           |
| Logan Howes       | Dallas, TX         | Claire Lawrence        | Fort Worth, TX       |
| Theodora Hummel   | San Antonio, TX    | Claire Lawrence        | Fort Worth, TX       |
| Kylara Hunter     | Donna, TX          | Betty Laws             | El Paso, TX          |
| Yoselyn Ibarra    | Comfort, TX        | Vivian Lee             | Austin, TX           |
| Ellen Isaly       | Dallas, TX         | Susan Lefler           | Austin, TX           |
| Kaari Jaason      | Tallinn, TX        | Laurene Legall-Lafonte | Houston, TX          |
| Andrew Jackson    | Houston, TX        | Mary A Leon            | San Antonio, TX      |
| Becky James       | Houston, TX        | Jacen Leonard          | Rowlett, TX          |
| Suraya Javeri     | Irving, TX         | Megan Leonhardt        | Richmond, TX         |
| Laura Jenkins     | Austin, TX         | Karen Lilley           | austin, TX           |
| Ken Jenner        | Austin, TX         | Irvin Lindsey          | Cypress, TX          |
| James Jimenez     | Corpus Christi, TX | Marc Lionetti          | Austin, TX           |
| Kathryn Johnson   | Frisco, TX         | Oscarv Lipchak         | Austin, TX           |
| Lisa Johnson      | San Antonio, TX    | Susan Lippman          | AUSTIN, TX           |
| Douglas Johnston  | Fort Worth, TX     | Sue Liu                | Sugar Land, TX       |
| Jeremy Jones      | Humble, TX         | Deborah Livingston     | Austin, TX           |
| Jerry Jorgenson   | Plano, TX          | Carl Lloyd             | San Antonio, TX      |
| Katharine Juarez  | Katy, TX           | Ann Loera              | Kingwood, TX         |
| John Jumonville   | San Antonio, TX    | Toni Logan             | Marble Falls, TX     |
| Suzy Juncker      | Dallas, TX         | Mary Long              | Austin, TX           |
| Rebne Karchefsky  | Leander, TX        | Susie Lopez            | El Paso, TX          |
| Robert Karli      | Austin, TX         | Celestin Lorenzo       | Plano, TX            |
| Kimber Kaushik    | Pearland, TX       | Justin Loscuito        | Houston, TX          |
| Michael Kavanaugh | Conroe, TX         | Christopher Losey      | Plano, TX            |
| Greg Kay          | Cypress, TX        | Donna Lozano           | Harlingen, TX        |
| Patricia Kelcher  | Dallas, TX         | Melissa Lugo           | San Antonio, TX      |
| Steven G. Kellman | Shavano Park, TX   | Andrew Lyall           | Corpus Christi, TX   |
| Edward Kern       | San Antonio, TX    | Sandra Lynn            | Dripping Springs, TX |
| Janice Kidd       | Garland, TX        | Lyndsay Lyon           | Houston, TX          |
| Christen King     | Dallas, TX         | L M                    | Cypress, TX          |
| Kal Kirk          | San Antonio, TX    | Michelle Macy          | Houston, TX          |
| Katja Kirsch      | Decatur, TX        | Terry Mader            | Arlington, TX        |
| James Klein       | Corpus Christi, TX | Jade Madrid            | Gardendale, TX       |
| Edwina Klemm      | Houston, TX        | Colleen Manning        | Houston, TX          |
| William Klock     | Fort Worth, TX     | Ron Marshall           | Garland, TX          |
| Kristin Kokal     | Harlingen, TX      | Rebecca Marshall       | Gainesville, TX      |
| Brant Kotch       | Houston, TX        | Helen Martin           | Houston, TX          |
| Kathy Kreuter     | Fort Worth, TX     | Irene Martinez         | Round Rock, TX       |
| Xakan Kukulcan    | Austin, TX         | John Martinez          | Pasadena, TX         |
| Evelyn Kunetka    | Georgetown, TX     | Matthew Mason          | Austin, TX           |



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|--------------------|----------------------|--------------------|-------------------|
| Sarah Masterson    | Austin, TX           | Thinh Ngo          | Arlington, TX     |
| Brenda Maston      | Garland, TX          | Susanita Nichols   | Kingwood, TX      |
| Aurora Mata        | Amarillo, TX         | Alice Nicholson    | Terrell, TX       |
| Donald Matthews    | Pflugerville, TX     | Thomas Nieland     | Alamo, TX         |
| Lamingus Maytubbie | Anna, TX             | Carolyn Nieland    | Alamo, TX         |
| Kevin Mcarthur     | San Antonio, TX      | Louise Nolff       | Hurst, TX         |
| J J Mccarthy       | Tyler, TX            | James Oflaherty    | Grapevine, TX     |
| Denise Mcconnell   | San Antonio, TX      | Darvin Oliver      | Mart, TX          |
| Gary Mcdonald      | Abilene, TX          | Kevin Olson        | San Antonio, TX   |
| Elizabeth Mcdougle | San Antonio, TX      | Amy Orange         | Houston, TX       |
| Huck Mceowen       | Fort Worth, TX       | Cynthia Osborn     | Huntsville, TX    |
| Laura Mcgowan      | Houston, TX          | Deonta Osborn      | Denton, TX        |
| Keely Mcleod       | Fort Worth, TX       | Christina Osborne  | League City, TX   |
| Mitchell Mead      | Spring, TX           | Naomi Ostfeld      | Houston, TX       |
| Kristi L. Meccia   | San Marcos, TX       | Theo Ostler        | Houston, TX       |
| Betty Melcher      | Lago Vista, TX       | Grace Palmer       | Fort Worth, TX    |
| Alyssa Melton      | Arlington, TX        | Gino Pastorino     | Dallas, TX        |
| Vince Mendieta     | Austin, TX           | Monica Paul        | Fort Worth, TX    |
| Vince Mendieta     | Austin, TX           | Ashley Pedersen    | Roanoke, TX       |
| Dawne Meneguzzo    | Austin, TX           | Deanna Pena        | Houston, TX       |
| Eric Meyer         | Bay City, TX         | Carol Pennington   | Manchaca, TX      |
| Pamela Miller      | Tolar, TX            | Jennifer Perez     | Katy, TX          |
| Aimee Miller       | Las Vegas, TX        | Ed Perry           | New Braunfels, TX |
| Pamela Miller      | Tolar, TX            | Charles Peterson   | San Antonio, TX   |
| Paula Miller       | Spring, TX           | Thien Pham         | Sugarland, TX     |
| Rachel Mineker     | Laguna Vista, TX     | Darcy Phillips     | Austin, TX        |
| Carol Montgomery   | Dripping Springs, TX | Shawn Pierce       | Dallas, TX        |
| Benita Moore       | Bedford, TX          | Sarah Pope         | The Colony, TX    |
| Elizabeth Morgan   | Austin, TX           | Barbara Puett      | Austin, TX        |
| Claudia Morgan     | Houston, TX          | Holly Putman       | Richmond, TX      |
| Debra Morris       | Austin, TX           | Joel Quaintance    | Huntsville, TX    |
| Dale Morris        | Galveston, TX        | Neil Quarles       | Austin, TX        |
| Gloria Morrison    | Pecos, TX            | Fatimah Quraali    | Houston, TX       |
| Katie Morrison     | granbury, TX         | Chris R            | Dallas, TX        |
| Nancy Moshier      | Roma, TX             | Mary Ramirez       | Houston, TX       |
| Frances Mott       | Malone, TX           | Francisco Ramirez  | Denton, TX        |
| Janelle Murphy     | Galveston, TX        | Nicole Ray         | Austin, TX        |
| Liz Murphy         | Austin, TX           | Andrea Reed        | Austin, TX        |
| Eric Naji          | Cypress, TX          | Kelli Reid         | The Colony, TX    |
| Jim Neal           | Nacogdoches, TX      | Doris Reiter       | Dallas, TX        |
| Debbie Nelson      | Spring, TX           | Amelia Reyes       | San Antonio, TX   |
| Stuart Newberg     | Austin, TX           | Tiffanee Reyes     | Pflugerville, TX  |
| Kathy Newman       | San Antonio, TX      | Stephanie Reynolds | Austin, TX        |

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|----------------------|--------------------|--------------------------|----------------------|
| John Rhoades         | Dallas, TX         | Pam Sohan                | New Braunfels, TX    |
| Glenn Richardson     | Austin, TX         | Elisabeth Sommer         | El Paso, TX          |
| Richard Richter      | San Antonio, TX    | Katharine Sommerfield    | San Antonio, TX      |
| Terry Richter        | Houston, TX        | Diane Spar               | Mansfield, TX        |
| Carolyn Riddle       | Austin, TX         | Tim Speece               | Brownsville, TX      |
| Sharon Ann Ridings   | Lakeway, TX        | Kathy Spera              | Tyler, TX            |
| Stephen Ridings      | Lakeway, TX        | Natalia Stadelbauer      | Austin, TX           |
| Janice Risch         | Houston, TX        | George Staff             | Georgetown, TX       |
| Dan Roark            | Farmers Branch, TX | Katy Stanton             | crowley, TX          |
| Pat Roberson         | Duncanville, TX    | Robert Stark             | Houston, TX          |
| Kay Robertson        | AMARILLO, TX       | Robert Stark             | Houston, TX          |
| Cheryl Robison       | Fort Worth, TX     | Dianne Stevenson         | Lockhart, TX         |
| Glen Robson          | Austin, TX         | Tammi Stewart            | Anson, TX            |
| Ernest Rodriguez     | Laredo, TX         | Sandra Stofan            | Garland, TX          |
| Nanciann Rogers      | Ft Worth, TX       | Julie Strother           | Houston, TX          |
| Ricardo Rojas        | San Antonio, TX    | Suzie Struhall           | Houston, TX          |
| Juanita Romero       | Fort Worth, TX     | Molly Sullivan           | Kingwood, TX         |
| Steven Rosenberg     | El Paso, TX        | Todd Sullivan            | Rowlett, TX          |
| Linda Rudolph        | Houston, TX        | Scott Swanson            | Austin, TX           |
| Ronald Rush          | Levelland, TX      | Ray Swiatkowski          | Dallas, TX           |
| Terri Rushfeldt      | Lampasas, TX       | Matthew Taylor           | Grapevine, TX        |
| Itala Rutter         | Laredo, TX         | Susan Teegardin          | Dallas, TX           |
| Ruby Sadler          | Houston, TX        | Ray C. Telfair li, Ph.D. | Whitehouse, TX       |
| Francisco J Salazar  | El Paso, TX        | Mel Templet              | Pottsboro, TX        |
| Donald Sawyer        | Conroe, TX         | Randy Thomas             | Richardson, TX       |
| Darilyn Schlie       | Fort Worth, TX     | Linda Thompson           | Houston, TX          |
| Samantha Schou       | Bastrop, TX        | Stephanie Thompson       | Austin, TX           |
| Margaret Schulenberg | Round Rock, TX     | Leanne Thoreson          | Dallas, TX           |
| Loisann Sciarrillo   | Schertz, TX        | Mary Thornton            | Fort Worth, TX       |
| Megan Scott          | Mesquite, TX       | Denis Tidrick            | San Antonio, TX      |
| Bonni Scudder        | Cedar Park, TX     | Robert Tidwell           | Greenville, TX       |
| Joshua Seff          | Mckinney, TX       | Gail Travers             | The ColoNew York, TX |
| Greg Sells           | Austin, TX         | Abby Trevino             | Houston, TX          |
| Sara Sexton          | Sanger, TX         | Taylor Troth             | Fort Worth, TX       |
| Tria Shaffer         | Leander, TX        | Chris Tudor              | Tomball, TX          |
| Anne Shawe-Mendelow  | Dallas, TX         | Marilyn Turney           | Sherman, TX          |
| Cheryl Sheldon       | Denton, TX         | Joe Tutt                 | Mesquite, TX         |
| Phil Shephard        | Georgetown, TX     | Claude Van Lingen        | Austin, TX           |
| Victoria Shih        | Plano, TX          | Sandra Varvel            | El Paso, TX          |
| Sue Simmons          | Port Arthur, TX    | Sophia Vassilakidis      | Houston, TX          |
| Milton Slocum        | Sugar Land, TX     | Pat Vassilakidis         | Houston, TX          |
| Leslie Smith         | San Marcos, TX     | Andres Venegas           | El Paso, TX          |
| Brooke Smith         | Houston, TX        | Laura Vera               | Dickinson, TX        |

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|--------------------|--------------------|------------------------|---------------------|
| Val Viers          | Austin, TX         | Alice Clark            | Cedar Valley, UT    |
| Yvonne Vilardell   | El Paso, TX        | C Clark                | Salt Lake City, UT  |
| Samantha Vogel     | Addison, TX        | Corey Corbin           | West Jordan, UT     |
| Candace Volz       | Austin, TX         | Pablo Cortez           | South Salt Lake, UT |
| Kelly Vs           | Tomball, TX        | Timothy Cowdrick       | Millcreek, UT       |
| Margaret Walden    | Sachse, TX         | Francois De La Giroday | Sandy, UT           |
| Tatjana Walker     | San Antonio, TX    | Cheryl Fergeson        | West Haven, UT      |
| Dusty Walker       | San Antonio, TX    | Cindi Field            | Ogden, UT           |
| Marce Walsh        | Houston, TX        | Lise Fischer           | Salt Lake City, UT  |
| Ralph Ward         | Plano, TX          | Karen Gee              | Bountiful, UT       |
| Ryan Washington    | San Antonio, TX    | Jane Grove             | Clearfield, UT      |
| Karen Watson       | Austin, TX         | Connor Hansell         | Salt Lake City, UT  |
| Nicholas Watson    | San Antonio, TX    | Cirabel Hill           | Salt Lake City, UT  |
| Andy Watts         | Houston, TX        | Terry Huff             | Salt Lake City, UT  |
| Mackenzie Wayne    | Austin, TX         | Juanita Hull           | Riverdale, UT       |
| Shelley Wehberg    | Houston, TX        | Gary Hull              | Riverdale, UT       |
| Kaiba White        | Austin, TX         | Donna Johnson          | Salt Lake City, UT  |
| Mozelle White      | Austin, TX         | Lynne Jones            | Salt Lake City, UT  |
| Kellye Whittenburg | Boerne, TX         | Ashlie Jorgensen       | South Ogden, UT     |
| Tom Wilbanks       | Dallas, TX         | Jahan Khamedoost       | Centerville, UT     |
| Angela Wilkinson   | Universal City, TX | Roberta Kirk           | Salt Lake City, UT  |
| Terrie Williams    | Vidor, TX          | Marie Larsen           | Ogden, UT           |
| Diana Williams     | Coppell, TX        | George Latta           | Draper, UT          |
| Marni Williams     | Spring, TX         | Juliana Ley            | Salt Lake City, UT  |
| Hannah Williams    | Lake Jackson, TX   | Lisa Maddux            | Park City, UT       |
| Maria Williamson   | Crosby, TX         | Henry Masters          | Heber City, UT      |
| Joni Wilson        | Houston, TX        | Jennifer Mckeel        | West Jordan, UT     |
| Dallas Windham     | Irving, TX         | Jennifer Mckeel        | West Jordan, UT     |
| Aleksei Wisekal    | Austin, TX         | Ralph Mckinney         | Midvale, UT         |
| Sandra Woodall     | San Antonio, TX    | Danielle Montaguejudd  | Coalville, UT       |
| Lesley Woods       | Austin, TX         | Nicola Nelson          | North Salt Lake, UT |
| Lynn Yinger        | Azle, TX           | Joyce Olsen            | Tooele, UT          |
| Doug Young         | Helotes, TX        | Madilyn Oswald         | Holladay, UT        |
| Y Z                | Austin, TX         | Lori Parkinson         | Orem, UT            |
| Kathy Zhao         | The Woodlands, TX  | Elizabeth Peck         | SLC, UT             |
| Judith Zwarun      | Austin, TX         | Jacqueline Pender      | Park City, UT       |
| Pat Annoni         | Midvale, UT        | Richard Perkowski      | Bluff, UT           |
| Diane Arnal        | St.George, UT      | Reba Reiser            | Murray, UT          |
| John Badila        | Salt Lake City, UT | M Richard              | Sandy, UT           |
| Robert Bolland     | Ogden, UT          | Maria Roberts          | Park City, UT       |
| Christina Bush     | Tooele, UT         | Patricia Secrist       | Slc, UT             |
| Alan Carter        | Provo, UT          | Christine Skidmore     | Sandy, UT           |
| Diane Chavez       | Ivins, UT          | Stephanie Souvall      | Salt Lake Cty, UT   |

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|--------------------|--------------------------|-------------------|----------------------|
| Jessica Stabler    | Herriman, UT             | Richard Jackson   | Shelburne, VT        |
| Jean Stephenson    | Salt Lake City, UT       | Anne Jameson      | Marshfield, VT       |
| Kris Strate        | Fairview, UT             | Michelle Kaufman  | Rutland, VT          |
| Sunny Swasey       | Salt Lake City, UT       | Kate Kenner       | Guilford, VT         |
| Chris Swientek     | Salt Lake City, UT       | Julia King        | Vergennes, VT        |
| Maggie Topalian    | Ogden, UT                | Dianne Laplante   | Westfield, VT        |
| Trisha Townsend    | Salt Lake City, UT       | Thea Lasan        | Brattleboro, VT      |
| Joan Turpin        | Salt Lake City, UT       | Kelli Lee-Allen   | Vernon, VT           |
| Anne Van Alstyne   | Draper, UT               | Nonnie Locke      | Brattleboro, VT      |
| Rebecca Vinson     | Midvale, UT              | Josephine Lowrey  | Montpelier, VT       |
| Karen Wathen       | St George, UT            | Laurie Marshall   | WOODSTOCK, VT        |
| David Weatherly    | Saint George, UT         | A Metcalf         | Bristol, VT          |
| Nancy Weiser       | Midvale, UT              | Carole O'Connell  | Newport, VT          |
| Susan Wells        | Layton, UT               | Jody Paine        | Danville, VT         |
| Sarah Williams     | Salt Lake City, UT       | Dian Parker       | Chelsea, VT          |
| Rosalie Wind       | Kanab, UT                | Chris Paterson    | Taftsville, VT       |
| Jarryd Audette     | Underhill, VT            | Peter Patterson   | Sudbury, VT          |
| Christine Barnes   | Northfield, VT           | Miles Peterle     | Cornwall, VT         |
| Christina Beliveau | Winooski, VT             | Donna Petterssen  | Plainfield, VT       |
| Christina Beliveau | Winooski, VT             | Jeffrey Phillips  | Shelburne, VT        |
| Sylvia Bergeron    | Hardwick, VT             | Lance Polya       | Jericho, VT          |
| Janet Bernhard     | Richmond, VT             | Diane Post        | Springfield, VT      |
| Peggy Carlisle     | Saint Johnsbury, VT      | Jan Rancatti      | Readsboro, VT        |
| Tom Cate           | Montpelier, VT           | Erik Rehman       | New Haven, VT        |
| Erin Cleere        | Burlington, VT           | Louise Rickard    | Lincoln, VT          |
| Sue Cole           | White River Junction, VT | Gregory Rouse     | Cambridge, VT        |
| C Collins          | Barre, VT                | Gerrie Rousseau   | Barton, VT           |
| F Corr             | Guilford, VT             | Laura Ruth        | North Middlesex, VT  |
| Marlyn Couture     | Arlington, VT            | Rachel Sherman    | South Burlington, VT |
| Knox Cummin        | Huntington, VT           | Lynn Silloway     | Pittsford, VT        |
| Toni Deslaurier    | Bethel, VT               | David Stagliano   | Burlington, VT       |
| Susan Detato       | Brownington, VT          | Sara Strelau      | Essex Junction, VT   |
| Anne Emerson       | Guilford, VT             | Donna Thomas      | Plainfield, VT       |
| Sylvia Ewerts      | Huntington, VT           | R.S. Tracy        | Montpelier, VT       |
| Elizabeth Ezerman  | Williston, VT            | Patience Trickett | Shelburne, VT        |
| Rosalind Finn      | South Strafford, VT      | William Weinberg  | Montpelier, VT       |
| Kate Goetz         | West Burke, VT           | Katherine Werner  | Waitsfield, VT       |
| Cindy Grimes       | Websterville, VT         | Kristine Winnicki | Chester, VT          |
| Mary Harbaugh      | Saint Albans, VT         | Jack Zeilenga     | East Montpelier, VT  |
| Judith Hazelton    | Bennington, VT           | Tonya Abbott      | Yorktown, VA         |
| Bonnie Hearthstone | Vergennes, VT            | Bruce Aiello      | Jeffersonton, VA     |
| Charlie Holland    | Killington, VT           | Sharon Ailstock   | Norfolk, VA          |
| Hale Irwin         | Montpelier, VT           | Christina Alger   | Palmyra, VA          |

|                                   |                        |                       |                     |
|-----------------------------------|------------------------|-----------------------|---------------------|
| Tracey Aquino                     | VA Beach, VA           | Sam Catron            | Chilhowie, VA       |
| David Armington                   | Richmond, VA           | Janis Chevalier       | Charlottesville, VA |
| Kimberley Arnette                 | Annandale, VA          | Marilyn Clark         | Williamsburg, VA    |
| Tyler Arrowsmith                  | Alexandria, VA         | Deborah Clark         | Reston, VA          |
| Diana Artemis                     | FALLS CHURCH, VA       | Christine Clayborne   | Hopewell, VA        |
| Cheryl Arthur                     | Charlottesville, VA    | Jerry Coalgate        | Williamsburg, VA    |
| Lynne Atherton-Dat                | Arlington, VA          | Jennifer Cochran      | Arlington, VA       |
| Ellen Atkinson                    | Lynchburg, VA          | Bruce Collette        | Warrenton, VA       |
| Nancy Baaske                      | Cross Junction, VA     | Necole Cook           | Salem, VA           |
| Anne Baker                        | VA Beach, VA           | Necole Cook           | Salem, VA           |
| Gerritt And Elizabeth Baker-Smith | Portsmouth, VA         | Christopher Cornelius | Crozet, VA          |
| Carolyn Barker                    | Aldie, VA              | Connie Cotton         | Charlottesville, VA |
| Melinda Bashen                    | Reston, VA             | Sue Coulson           | Colonial Beach,, VA |
| Liz Bava                          | Paeonian Springs, VA   | Liz Cramp             | Clifton, VA         |
| Elaine Becker                     | Roanoke, VA            | Edward Crawford       | Norfolk, VA         |
| Tamara Beckstrand                 | West Springfield, VA   | Mary Cunningham       | Manassas, VA        |
| Richard Beville                   | Glasgow, VA            | Michelle Dail         | Hampton, VA         |
| Amy Biggs                         | Vienna, VA             | Becky Daiss           | Arlington, VA       |
| George Bilyeu                     | Reston, VA             | Elliot Daniels        | Arlington, VA       |
| Catharine Bishop                  | Annandale, VA          | Steve Daniels         | Roanoke, VA         |
| Melody Bizzell                    | Blacksburg, VA         | Milton Davis          | Dublin, VA          |
| Meghan Blydenburgh                | Fairfax, VA            | Klef De Gregorio      | Milan, VA           |
| Hayley Bogert                     | Manassas, VA           | Natalie Deboer        | Richmond, VA        |
| Jesse Bohl                        | North Chesterfield, VA | Heather Defazio       | Lexington, VA       |
| Fay Booth                         | Farmville, VA          | Linda Delaney         | Spotsylvania, VA    |
| Karen Bopp                        | Falls Church, VA       | Maria Delgadolibrero  | Roanoke, VA         |
| E Boudreaux                       | Stephens City, VA      | Therese Dennis        | Luray, VA           |
| Gerald Bowman                     | Richmond, VA           | Elizabeth Diaz        | Williamsburg, VA    |
| Wendy Bradburn                    | Arlington, VA          | Stephanie Doetsch     | Charlottesville, VA |
| Susan Bradshaw                    | Annandale, VA          | Adam Donofrio         | North Dinwiddie, VA |
| Beverly Bradshaw                  | Fredericksburg, VA     | Uwe Dotzauer          | Alexandria, VA      |
| Marilyn Brainard                  | Linden, VA             | Brian Dunn            | Henrico, VA         |
| Declan Brakefield                 | Arlington, VA          | Christopher Dunn      | Woodbridge, VA      |
| Kevin Brehm                       | Alexandria, VA         | Liz Dyer              | Alexandria, VA      |
| Lynn Brenner                      | Fairfax, VA            | Charles Dykema        | Norfolk, VA         |
| Benjamin Brewster                 | Charlottesville, VA    | KI Eckhardt           | Winchester, VA      |
| Patrick Brooks                    | Centreville, VA        | Aaron Edley           | Goochland, VA       |
| Judy Bryan                        | Alexandria, VA         | Erica Ehrhardt        | Leesburg, VA        |
| Julie Buxton                      | Roanoke, VA            | Annalea Elliott       | Richmond, VA        |
| Julie Buxton                      | Roanoke, VA            | Robert Ellis          | Richmond, VA        |
| Jean Carlton                      | Sterling, VA           | Michelle Elwyn        | Arlington, VA       |
| Michael Carter                    | Annandale, VA          | Eileen Embid          | Alexandria, VA      |
| Jessica Cassidy                   | Herndon, VA            | Leon Epperly          | Salem, VA           |

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|--------------------|----------------------|-------------------------|--------------------|
| Keith Everton      | Midlothian, VA       | Pam Hilbert             | Norfolk, VA        |
| M F                | VA beach, VA         | Diane Hise              | Warrenton, VA      |
| Karen Fedorov      | Bealeton, VA         | Robert Hollerbach       | VA Beach, VA       |
| Jodie Felice       | Midlothian, VA       | Paula Holmes            | Clifton, VA        |
| Elaine Fischer     | Roanoke, VA          | Maxin Hopkins           | VA Beach, VA       |
| John Fitzpatrick   | West Springfield, VA | Ellen Hopkins           | Lexington, VA      |
| Irwin Flashman     | Reston, VA           | Cynthia Howell          | Sterling, VA       |
| Josh Fleenor       | Bristol, VA          | Linda Howell            | Norfolk, VA        |
| Faith Flynn        | Culpeper, VA         | Susan D Howell          | Woodbridge, VA     |
| Diana Franco       | Broadlands, VA       | Kay Hudson              | Roanoke, VA        |
| Angelica Freitag   | Alexandria, VA       | Dorothy Hunter          | Spotsylvania, VA   |
| Cris G             | Chantilly, VA        | Daniel Ibarra           | Roanoke, VA        |
| Kim Galbreath      | Portsmouth, VA       | Michael Irwin           | Alexandria, VA     |
| Kristin Gallanosa  | Richmond, VA         | Frederick Jackson       | Alexandria, VA     |
| Daniel Giesy       | Newport News, VA     | Claire Jacobsen         | Arlington, VA      |
| Amanda Gilliam     | Warrenton, VA        | Pamela Jedlicka         | Reston, VA         |
| Tom Giltz          | Roanoke, VA          | Jacqueline Jeffers      | Arlington, VA      |
| Desiree Glinden    | Williamsburg, VA     | Kellye Jetkiewicz       | Fredericksburg, VA |
| Nancy Glynn        | Alexandria, VA       | Pamela Jiranek          | Earlsville, VA     |
| Cara Goldy         | Norfolk, VA          | Rhonda Johnson          | Aylett, VA         |
| Maria Gomez        | Vienna, VA           | Donna Jones             | Herndon, VA        |
| J Grause           | Roanoke, VA          | Kate K                  | Alexandria, VA     |
| Jason Green        | Bumpass, VA          | Norma Kacen             | Arlington, VA      |
| Barry Greenhill    | Reston, VA           | Susan Kalan             | Orange, VA         |
| Emily Grisham      | Gainesville, VA      | C Kasey                 | Mechanicsville, VA |
| Oliver Guichard    | Partlow, VA          | Kristine Keefer         | Woodbridge, VA     |
| Michelle Hall      | Ft belvior, VA       | James Keffer            | Cross Junction, VA |
| Martha Hall        | Farnham, VA          | Elizabeth Kelley        | Newport News, VA   |
| Robert Halsey      | Annandale, VA        | Michael Kelley          | Newport News, VA   |
| Donna Hamilton     | VA Beach, VA         | John Kelly              | VA Beach, VA       |
| Ariana Hanaity     | Alexandria, VA       | Jeff Kempter            | Arlington, VA      |
| Kimberley Harris   | Leesburg, VA         | Devon Kendall           | VA Beach, VA       |
| Catherine Harrison | Henrico, VA          | Tara Kerr               | South Boston, VA   |
| Connor Harrison    | Lorton, VA           | Jennifer Keys           | Ashburn, VA        |
| Crystal Hart       | Leesburg, VA         | Lisa Glenn Kidd-Goodman | Williamsburg, VA   |
| James Hartley      | Arlington, VA        | Patricia Kincheloe      | Henrico, VA        |
| Carolyn Haupt      | Alexandria, VA       | Michael King            | Staunton, VA       |
| A J Hawkins        | Richmond, VA         | Rayna King              | Windsor, VA        |
| Linda Hayes        | VA Beach, VA         | Jay Kohn                | Falls Church, VA   |
| Mark Heinicke      | Ruckersville, VA     | Irene Kubosh            | Hampton, VA        |
| David Herdman      | Winchester, VA       | Jennifer Kuenning       | Fairfax, VA        |
| Juan M. Hernandez  | Chesapeake, VA       | James Laffey            | harrisonburg, VA   |
| Linda Hertz        | Reston, VA           | Laurie Lagoe            | Alexandria, VA     |

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|----------------------|------------------------|---------------------------|--------------------|
| Madeleine Lamoureux  | Herndon, VA            | Tamara Miller             | Hampton, VA        |
| Dan Larivey          | Boyce, VA              | Brenda Miller             | Sterling, VA       |
| Laura Lavertu        | Alexandria, VA         | Annette Minnis            | Palmyra, VA        |
| Fred Lavy            | Harrisonburg, VA       | Roi Mitchell              | Roanoke, VA        |
| Morgan Lazenby       | Salem, VA              | Henry Mobley              | VA Beach, VA       |
| Carlo Leboffe        | Aldie, VA              | Erika Mogrovejo           | Alexandria, VA     |
| Sara Lee             | Manassas Park, VA      | Leslie Mondul             | Bristol, VA        |
| Arthur Leibowitz     | Richmond, VA           | Darleen Morano Brown      | Henrico, VA        |
| Avra Leigh           | Rockingham, VA         | Ruth Morgal               | Gordonsville, VA   |
| Jim Lindsay          | Arlington, VA          | T Morris                  | Henrico, VA        |
| Larry Linn           | Yorktown, VA           | Kim Morrow                | Spotsylvania, VA   |
| Alan Little          | Norfolk, VA            | Charity Moschopoulos      | Annandale, VA      |
| Downs Little         | Lynchburg, VA          | Olga Mulcahy              | Leesburg, VA       |
| Frank Lohrer         | Charlottesville, VA    | Pamela Mullins            | Gloucester, VA     |
| Lois Lommel          | North Chesterfield, VA | Stanley Naimon            | Midlothian, VA     |
| Wendy Macdonald      | Woodbridge, VA         | Jeff Nein                 | Burke, VA          |
| Pat Mace             | Spotsylvania, VA       | Taffi Newhouser           | Reston, VA         |
| Donald Mackler       | Blacksburg, VA         | Raymond Nuesch            | Free Union, VA     |
| David Maclean        | Springfield, VA        | Nancy Odonnell Re         | Ocean View, VA     |
| Paul Macomber        | Oak Hill, VA           | Geoffrey Ogden            | Middleburg, VA     |
| Faith Mahaulu        | VA Beach, VA           | Kathleen Osullivan        | Bumpass, VA        |
| Joan Makurat         | Fairfax, VA            | Nowell Overby             | Chesapeake, VA     |
| Ron Mallard          | Reston, VA             | David Patrick             | Fredericksburg, VA |
| Donna Malvin         | Williamsburg, VA       | Mark Pelais               | Midlothian, VA     |
| Alma Martinez        | Alexandria, VA         | Mary Pelais               | Midlothian, VA     |
| Dr. Charles Mason    | Alexandria, VA         | Richard Pennington        | Bedford, VA        |
| James Mather         | Lorton, VA             | Nora Pfeiffer             | Henrico, VA        |
| Sara Mauri           | Arlington, VA          | Irene Philips             | Richmond, VA       |
| Barbara Mccane       | Chesapeake, VA         | Donna Phillips            | Winchester, VA     |
| Teresa Mccartney     | Glen Allen, VA         | Mary Picardi              | VA Beach, VA       |
| Kate Mccormack       | Glen Allen, VA         | Gary Pickenpaugh          | Stafford, VA       |
| Laura Mccrory        | Ashburn, VA            | Diane Pires               | Herndon, VA        |
| Linda Mcdougal       | Barhamsville, VA       | Tony Piselli              | Middletown, VA     |
| Maryann Mcfarland    | Keswick, VA            | Kelly Place               | Williamsburg, VA   |
| Mollie Mcgee         | Chesapeake, VA         | Jodi Polissky             | Ashburn, VA        |
| Kathleen Mclane      | Woodbridge, VA         | Robert Pool               | Alexandria, VA     |
| Richard Mclane       | Woodbridge, VA         | Tessa Pou                 | Spotsylvania, VA   |
| Brian Mcnamara       | Alexandria, VA         | Josh Pucci                | Mechanicsville, VA |
| Alexandra Mcvicker   | VA Beach, VA           | Lindsay Pugh              | Disputanta, VA     |
| Doug Meikle          | Centreville, VA        | Bruce Rauscher            | ALEXANDRIA, VA     |
| A Merzi              | Ashburn, VA            | Kerry Reardon             | Culpeper, VA       |
| Melodie Middlebrooks | VA Beach, VA           | Robert M And Carol G Reed | Hardyville, VA     |
| Jennifer Midgett     | Norfolk, VA            | James Reiersen            | Arlington, VA      |

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|------------------------|--------------------|--------------------------|------------------------|
| Melissa Reiland        | Reston, VA         | Jennifer Sullivan        | Alexandria, VA         |
| Bill Richards          | Falls Church, VA   | Katherine Surret         | North Chesterfield, VA |
| Anna Rincon            | Round Hill, VA     | Barbara Suruga           | VA Beach, VA           |
| Martha Ripple          | Great Falls, VA    | Judy Sutton              | Roanoke, VA            |
| Deborah Robinson       | Abingdon, VA       | Jessica Swanson          | Roanoke, VA            |
| Sara Roderer           | Heathsville, VA    | Kelly Thomas             | Annandale, VA          |
| Danielle Rogers        | ARLINGTON, VA      | Deedee Tostanoski        | Alexandria, VA         |
| Jay Rose               | Woodbridge, VA     | Mary Totty               | Monroe, VA             |
| Rogard Ross            | Chesapeake, VA     | Joe Tricase              | Alexandria, VA         |
| Shannon Roth           | Rockingham, VA     | Tina Trice               | Sandston, VA           |
| Marjorie Runge         | Springfield, VA    | Bruce And Penny Triplett | Winchester, VA         |
| Sue Russ               | Hillsville, VA     | Sally Tucker             | Charlottesville, VA    |
| Richard Rutherford     | Staunton, VA       | Ruth Ulmer               | Clifton, VA            |
| Afshin Sadeghi         | Alexandria, VA     | Martha Vandervoort       | Reston, VA             |
| David Savige           | Portsmouth, VA     | Karen Vanes              | Great Falls, VA        |
| Peter Sayre            | Falls Church, VA   | Jean Marie Vanwinkle     | Bedford, VA            |
| Alexander Schiffelbian | VA Beach, VA       | Cheryl Vosburg           | Richmond, VA           |
| Tim Schmitt            | Arlington, VA      | A W                      | Leesburg, VA           |
| Olivia Schultz         | The Plains, VA     | Nadine Waddell           | Oakton, VA             |
| Jamie Sciandra         | Ashburn, VA        | Donald Walsh             | Alexandria, VA         |
| Glenn Secor            | Louisa, VA         | Lisa Walthers            | Arlington, VA          |
| Joel Serin             | Alexandria, VA     | Robert Warren            | Norfolk, VA            |
| Dayle Severns          | Concord, VA        | Maureen Webb             | Chatham, VA            |
| Kathy Shahinian        | Midlothian, VA     | Joseph Weingartner       | Fairfax, VA            |
| Alison Shapiro         | Arlington, VA      | William Welkowitz        | Arlington, VA          |
| Mary Shea              | Arlington, VA      | Christy Wente            | Roanoke, VA            |
| Debbie Shelly          | Mechanicsville, VA | Christine Wesbrook       | Arlington, VA          |
| Alexander Siegfried    | Richmond, VA       | Lynda West               | Falls Church, VA       |
| Frida Simms            | ALEXANDRIA, VA     | Wendy Westbrook          | Manassas, VA           |
| Greg Singleton         | Springfield, VA    | Brandy Westnedge         | Norfolk, VA            |
| William Skirbuntkozabo | Chester, VA        | Janet White              | VA Beach, VA           |
| Stephen Slepetz        | Woodbridge, VA     | Charleen Whitehead       | Richmond, VA           |
| Piotr Sliwka           | Manassas Park, VA  | Alaine Whitford          | Yorktown, VA           |
| Ronald Smith           | BURKE, VA          | Miriam Wildeman          | Charlottesville, VA    |
| William Snow           | Front Royal, VA    | Lori Williams            | Roanoke, VA            |
| Talia Snyder           | Chantilly, VA      | Angela Wilson            | Troutville, VA         |
| Marie Spaulding        | Arlington, VA      | Dana Wilson              | Appomattox, VA         |
| Karen Spurr            | VA Beach, VA       | Patricia Wilson          | Front Royal, VA        |
| William Staley         | Sterling, VA       | Laura Wisman             | Edinburg, VA           |
| Eric Steele            | Falls Church, VA   | Allen Witherington       | Palmyra, VA            |
| Sandra Steers          | Warrenton, VA      | Thomas Wittkamp          | Newport News, VA       |
| Susan Strattner        | Norfolk, VA        | Catherine Wood           | Richmond, VA           |
| Maureen Sullivan       | Henrico, VA        | Pamela Wood              | Dyke, VA               |



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|-------------------|-----------------------|-----------------------|--------------------|
| Brad Yoho         | Brambleton, VA        | Mark Blitzer          | Seattle, WA        |
| Teresa Young      | Bristol, VA           | Art Bogie             | Anacortes, WA      |
| Lynn Zoch         | Christiansburg, VA    | Sandi Bond            | Lynnwood, WA       |
| Gina Abernathy    | Sammamish, WA         | Ronald Bond           | Langley, WA        |
| Marsha Adams      | Shelton, WA           | Antoinette Bonsignore | Kirkland, WA       |
| Sandra Adams      | Bremerton, WA         | Tika Bordelon         | Seattle, WA        |
| Jessica Adams     | Colville, WA          | Robert Bortolin       | Kirkland, WA       |
| Gary Albright     | Snohomish, WA         | Wendy Bowman          | Lacey, WA          |
| Cathy Allen       | Vancouver, WA         | Christina Bradley     | Snohomish, WA      |
| Lynnette Anderson | Seattle, WA           | Cathy Brandt          | Issaquah, WA       |
| Glen Anderson     | Lacey, WA             | Patti Brent           | VANCOUVER, WA      |
| Linda Anderson    | Renton, WA            | Tim Bristow           | Spokane, WA        |
| Charlie Anderson  | Camano Island, WA     | Tina Brown            | Anacortes, WA      |
| Mark Ashley       | Bainbridge Island, WA | S.F. Brown            | Sequim, WA         |
| Shary B           | Seattle, WA           | Scott Buchner         | Sequim, WA         |
| Danielle Baehm    | Everett, WA           | Sherry Bupp           | Redmond, WA        |
| Ravinder Bajwa    | Redmond, WA           | Ilse Burch            | Sammamish, WA      |
| Norman Baker      | Sequim, WA            | Marta Burnet          | Renton, WA         |
| Susan Baker       | Seattle, WA           | Sharmayne Busher      | Vancouver, WA      |
| Gema Baldwin      | Seattle, WA           | Mary Cahill           | Ellensburg, WA     |
| T Baldwin         | Cheney, WA            | Jody Caicco           | Vancouver, WA      |
| Katherin Balles   | Bremerton, WA         | Jennifer Calvert      | Spokane Valley, WA |
| Deborah Bancroft  | OnAK, WA              | Gloria Campbell       | Kirkland, WA       |
| Wesley Banks      | Vancouver, WA         | Craig Carlson         | Olympia, WA        |
| Nick Barcott      | Lynnwood, WA          | Halle Carolus         | Redmond, WA        |
| Noel Barnes       | Renton, WA            | Abbie Carrasco        | Gig Harbor, WA     |
| Ann Bartlett      | Wenatchee, WA         | Linda Carroll         | Spokane, WA        |
| Tina Bartlett     | Chehalis, WA          | Rachel Casel          | Everett, WA        |
| James Bates       | Seattle, WA           | Meg Casey             | Edmonds, WA        |
| Sarah Bauman      | Bellingham, WA        | Candice Cassato       | Olympia, WA        |
| Brandon Bee       | Spokane Valley, WA    | Guy Chan              | Seattle, WA        |
| Jeanie Bein       | Bellingham, WA        | Joanna Chesnut        | Tacoma, WA         |
| Joan Beldin       | Port Angeles, WA      | Mlou Christ           | redmond, WA        |
| Pamela Bendix     | Bainbridge Island, WA | Allison Ciancibelli   | Twisp, WA          |
| Derek Benedict    | Lynnwood, WA          | Urszula Cieslak       | Wenatchee, WA      |
| Paula Bennett     | Seattle, WA           | E Clark               | Seattle, WA        |
| Jen Bentzel       | Lacey, WA             | Patricia Coffey       | Langley, WA        |
| Erika Beristain   | Gig Harbor, WA        | James Colburn         | TACOMA, WA         |
| Cheryl Biale      | Olympia, WA           | Kelley Coleman-Slack  | Bellingham, WA     |
| Marguerite Birch  | Seattle, WA           | Diane Collins         | Port Orchard, WA   |
| Evelyn Bittner    | Seattle, WA           | Amy Compestine        | Spokane Valley, WA |
| Barbara Blackwood | Spokane Valley, WA    | Patrick Conn          | Kent, WA           |
| Bonnie Bledsoe    | Seattle, WA           | Nena Cook             | Newport, WA        |

|                   |                       |                     |                       |
|-------------------|-----------------------|---------------------|-----------------------|
| Katie Cooke       | Kent, WA              | Stephanie Edwards   | Lake Forest Park, WA  |
| Jennifer Corrigan | Snohomish, WA         | J. Eggers           | Addy, WA              |
| Devon Coultas     | Belfair, WA           | Noah Ehler          | Carnation, WA         |
| Thomas Cox        | Kirkland, WA          | Randi Eicher        | Seattle, WA           |
| Lanie Cox         | Spokane, WA           | Beth Eisenbeis      | Bothell, WA           |
| Gary Craig        | Rainier, WA           | Glenn Eklund        | Oak Harbor, WA        |
| Kimberly Crane    | Snohomish, WA         | Sara Eldridge       | SEATTLE, WA           |
| Arly Crawte       | Poulsbo, WA           | Charles Ellenberger | Kent, WA              |
| Elizabeth Cross   | Seattle, WA           | Allen Elliott       | La Conner, WA         |
| Laurette Culbert  | Seattle, WA           | Shemayim Elohim     | Seattle, WA           |
| David Cunningham  | Bellingham, WA        | Carol Else          | LAKEWOOD, WA          |
| Karen Curry       | Pullman, WA           | Claudia Ender       | Seattle, WA           |
| Colleen Curtis    | Bellingham, WA        | Klaudia Englund     | Anacortes, WA         |
| Heather Curtis    | Spokane, WA           | Nance Epstein       | Bothell, WA           |
| Shari Curtright   | Moclips, WA           | Lori Erbs           | Acme, WA              |
| Michael Dabrowski | Shoreline, WA         | Lynn Erckmann       | Kirkland, WA          |
| Nancy Dahlberg    | Seattle, WA           | Hilarie Ericson     | Mill Creek, WA        |
| Suzann Daley      | Shoreline, WA         | Rally Ershig        | Sedro Woolley, WA     |
| Miriam Danu       | Bellingham, WA        | Tina Ethridge       | Seattle, WA           |
| Margaret Davies   | Pullman, WA           | Chad Evans          | Seattle, WA           |
| Va Davis          | Woodinville, WA       | Danielle Evans      | Richland, WA          |
| Christina Davis   | Spanaway, WA          | Franklin Eventoff   | Bow, WA               |
| Denise Day        | Tacoma, WA            | Leslie Ewer         | Rochester, WA         |
| Gary Dayton       | Vancouver, WA         | Gill Fahrenwald     | Olympia, WA           |
| Brandie Deal      | Bothell, WA           | Annette Fails       | Arlington, WA         |
| Roger Delmar      | Port Townsend, WA     | Michelle Fairwo     | Langley, WA           |
| Asphodel Denning  | Seattle, WA           | Ruth Neuwald Falcon | Seattle, WA           |
| Joni Dennison     | Federal Way, WA       | Diane Falk          | Marysville, WA        |
| Megan Desantis    | Woodinville, WA       | Aisha Farhoud       | Seattle, WA           |
| Ari Deutchman     | Eastsound, WA         | Judy Farrell        | Bow, WA               |
| Hunter Dew        | Oak Harbor, WA        | Mary Ferm           | Bainbridge Island, WA |
| Heather Dexter    | Lynnwood, WA          | Veronica Fernmoss   | Vashon, WA            |
| Angie Dixon       | Clinton, WA           | Jean Ferrier        | Bellingham, WA        |
| Linda Dodson      | Seattle, WA           | Charlie Fink        | Seattle, WA           |
| Gail Dominick     | Montesano, WA         | Joel Flank          | Seattle, WA           |
| Del E Domke       | Bellevue, WA          | Teresa Fleener      | Grapeview, WA         |
| Serena Donnelly   | Camas, WA             | Elizabeth Fleming   | Chattaroy, WA         |
| Jan Dove          | Port Angeles, WA      | Erika Flesher       | Bellevue, WA          |
| Eleanor Dowson    | Mill Creek, WA        | Rebecca Fletcher    | Sedro Woolley, WA     |
| Barb Drake        | Seattle, WA           | Gregory Foos        | Select One, WA        |
| Alex Dymond       | Seattle, WA           | Carol Force         | North Bend, WA        |
| Carolyn Eden      | Bainbridge Island, WA | Elizabeth Fortmann  | Ferndale, WA          |
| Sean Edmison      | Redmond, WA           | G Foster            | Freeland, WA          |

|                     |                       |                          |                       |
|---------------------|-----------------------|--------------------------|-----------------------|
| Rebecca Frank       | Malaga, WA            | Susan Harmon             | Bellingham, WA        |
| Wayne Frisbie       | Mount Vernon, WA      | Gwendolyn Harper         | Everett, WA           |
| Stephanie Frizzell  | Olympia, WA           | Robin Harper             | Oak Harbor, WA        |
| R Gallagher         | Tumwater, WA          | Kym Harris               | Tracyton, WA          |
| Deborah Gandolfo    | Kirkland, WA          | Madelyn Hart             | Seattle, WA           |
| Rachel Gaspard      | Everett, WA           | Barbara Hart             | Silverdale, WA        |
| Shirley Gazori      | Mill Creek, WA        | Florence Harty           | White Salmon, WA      |
| Sandra Gehribergman | Puyallup, WA          | Jo Harvey                | Pacific, WA           |
| Karen Gielgens      | Kirkland, WA          | Heather Haverfield       | Langley, WA           |
| Katherine Gildenhar | Seattle, WA           | Jill Hein                | Coupeville, WA        |
| Barrie Gile         | Bellingham, WA        | Patricia Joan Hemphill   | Bainbridge Island, WA |
| James Giles         | Quilcene, WA          | Daniel Henling           | Seattle, WA           |
| Gary Gill           | Maple Valley, WA      | Anne Hepfer              | Seattle, WA           |
| Jennifer Gindt      | Yakima, WA            | Marsha Hicks             | Marysville, WA        |
| Jennifer Gindt      | Yakima, WA            | Mary Higgins             | Mountlake Terrace, WA |
| Curt Given          | Everett, WA           | Cheri Hill               | White Salmon, WA      |
| Laura Goldberg      | Arlington, WA         | Michael And Barbara Hill | Mineral, WA           |
| Gene Golden         | Bellingham, WA        | Richard Hodgkin          | Seattle, WA           |
| Carol Goodsole      | Spokane, WA           | Jay Hollingsworth        | Seattle, WA           |
| Nancy Goodwin       | Sequim, WA            | Deborah Homenko          | Port Angeles, WA      |
| Yvette Goot         | Colville, WA          | Robin Hordon             | Kingston, WA          |
| John Gordon         | Port Townsend, WA     | Kim Howe                 | Seattle, WA           |
| Jessica Goulet      | Olympia, WA           | D Hubenthal              | Spokane, WA           |
| Cole Grabow         | Seattle, WA           | Joy Huffine              | Edmonds, WA           |
| Dawn Grant          | Kirkland, WA          | Sally Hurst              | Seattle, WA           |
| Edgar Graudins      | Everett, WA           | Dianne Hurst             | Lacey, WA             |
| Dale Greer          | Seattle, WA           | Suong Huynh              | Kirkland, WA          |
| Barbara Gregory     | Seattle, WA           | William Insley           | Tacoma, WA            |
| Barbara Gross       | Seattle, WA           | Kateryna Ionina          | Redmond, WA           |
| Andrea Gruszecki    | Shoreline, WA         | Lura Irish               | Lakebay, WA           |
| Lori Gudmundson     | Bellingham, WA        | Celina Isgrigg           | Fircrest, WA          |
| Chris Guillory      | Port Angeles, WA      | Bud Jackson              | Normandy Park, WA     |
| Randy Guthrie       | Snohomish, WA         | Vanessa Jamison          | Marysville, WA        |
| Carole H            | Port Townsend, WA     | Sue Jarrard              | Castle Rock, WA       |
| Sarah Hafer         | Vancouver, WA         | Margie Jensen            | Arlington, WA         |
| Jeffrey Haines      | Issaquah, WA          | Penelope Johansen        | Montesano, WA         |
| Valli Hale          | Lakewood, WA          | Richard Johnson          | Bellingham, WA        |
| Lisa Halpern        | Seattle, WA           | Lorraine Johnson         | Seattle, WA           |
| Suzanne Hamer       | Woodinville, WA       | Elizabeth Johnson        | Stevenson, WA         |
| Donna Hamilton      | Maple Valley, WA      | Thomas Johnson           | Olympia, WA           |
| Susan Hampel        | Eastsound, WA         | Steven Johnson           | Spokane Valley, WA    |
| David Hand          | Bainbridge Island, WA | Darlene Johnston         | Mountlake Terrace, WA |
| Lois Hanson         | Seattle, WA           | Kaija Jones              | Vashon, WA            |

|                      |                      |                    |                      |
|----------------------|----------------------|--------------------|----------------------|
| Susan Jones          | Freeland, WA         | Jane Leavitt       | Seattle, WA          |
| Bobette Jones        | Seattle, WA          | Kathleen Lee       | Lacey, WA            |
| Dorothy Jordan       | Lynden, WA           | Donna Lefevre      | Lake Forest Park, WA |
| Manisha Joshi        | Seattle, WA          | Elizabeth Lengel   | Anacortes, WA        |
| Brandon Juhl         | Everett, WA          | Sharon Levine      | Seattle, WA          |
| Kaitlin K            | Seattle, WA          | Alisha Leviten     | Shoreline, WA        |
| Edward Kaeufer       | Blaine, WA           | Ruth Lewis         | Newport, WA          |
| Sylvie Karlsda       | Kenmore, WA          | Thomas Libbey      | Seattle, WA          |
| Fred Karlson         | Ferndale, WA         | Linda Lindsay      | Langley, WA          |
| Deborah Kaye         | Blaine, WA           | Virgene Link-New   | Anacortes, WA        |
| Kelly Keefer         | University Place, WA | Charlotte Linton   | Seattle, WA          |
| Lori Kellar          | Kent, WA             | Hannah Liu         | Vancouver, WA        |
| Angela Kelly         | Olympia, WA          | Wolfgang Loera     | Bellevue, WA         |
| Michelle Kelly       | Seattle, WA          | Lou Ann Lomax      | Pullman, WA          |
| Cathy Kennedy        | Everett, WA          | Carolyn Long       | Port Angeles, WA     |
| Melanie Kenoyer      | Vancouver, WA        | Gregry Loomis      | Seattle, WA          |
| Kriss Kevorkian      | FOX ISLAND, WA       | Susan Loomis       | Renton, WA           |
| Amy Kiba             | Vancouver, WA        | William Looney     | Silverdale, WA       |
| Mark Kidd            | South Bend, WA       | Ed Loosli          | Cathlamet, WA        |
| Ji-Young Kim         | Bothell, WA          | Josefina Lopez     | Kent, WA             |
| Ji-Young Kim         | Bothell, WA          | Elizabeth Lopez    | Spokane, WA          |
| Ruth King            | Lacey, WA            | Sammy Low          | Stanwood, WA         |
| Tinamarie King       | Redmond, WA          | Mark Lucianna      | camano island, WA    |
| Ferrel King          | Port Orchard, WA     | Cindi Lund         | Lopez Island, WA     |
| Mary Kita            | Redmond, WA          | Katelyn Lundberg   | Everett, WA          |
| Suzanne Kite         | Blaine, WA           | Vanassa Lundheim   | Everett, WA          |
| Jamie Kitson         | Granite Falls, WA    | Monique Maas       | Anacortes, WA        |
| Katie Klahn          | North Bend, WA       | Ronald Macarthur   | Port Orchard, WA     |
| Christine Klunder    | Bellingham, WA       | Frances Mack       | Bothell, WA          |
| John And Judy Knoten | Vancouver, WA        | Margie Maddux      | Seattle, WA          |
| Theresa Knott        | Federal Way, WA      | Catherine Madole   | Walla Walla, WA      |
| Patricia Kolstad     | Olympia, WA          | Ellen Madsen       | Olympia, WA          |
| Meryle A. Korn       | Bellingham, WA       | Maria Magana       | Burlington, WA       |
| Shane Kostka         | Nine Mile Falls, WA  | Lawrence Magliola  | Sequim, WA           |
| Nicholas Kovalcik    | Redmond, WA          | Debbie Mahder      | Battle Ground, WA    |
| Heather Kreeck       | Snohomish, WA        | James Mallay       | Vancouver, WA        |
| Andrea Kreiger       | Seattle, WA          | Diane Mar          | Port Angeles, WA     |
| Stephen Kunin        | Spokane Valley, WA   | Nicole Marble      | Seattle, WA          |
| Marc Ladd            | La Conner, WA        | Steve Marek        | Tacoma, WA           |
| Kate Larson          | Seattle, WA          | Shannon Markley    | Shoreline, WA        |
| Erik Larue           | Burlington, WA       | Priscilla Martinez | Bothell, WA          |
| Charlene Lauzon      | Lynnwood, WA         | Tina Matzke        | Puyallup, WA         |
| Darcy Leach          | Olga, WA             | Lisa Maurer        | Seattle, WA          |

|                     |                       |                    |                   |
|---------------------|-----------------------|--------------------|-------------------|
| David Mayer         | Olympia, WA           | Nancy Nelson       | Rockford, WA      |
| Kathleen Mcbeth     | Bellevue, WA          | Linda Nelson       | Vancouver, WA     |
| Christine Mccann    | Kent, WA              | Suzanne Nevins     | Brinnon, WA       |
| Gloria Mcclintock   | Mount Vernon, WA      | Michael Nielsen    | Sequim, WA        |
| Kerry Mccool        | Sequim, WA            | Stephani Norby     | Spokane, WA       |
| Sheila Mccrea       | Spokane, WA           | Julanne Nowak      | Bellingham, WA    |
| Meghan Mccutcheon   | White Salmon, WA      | Sean Odell         | Renton, WA        |
| Rebecca Mcdonough   | Eastsound, WA         | Rollin Odell       | Kingston, WA      |
| Terence Mcgee       | Woodinville, WA       | Barbara Ogden      | Tacoma, WA        |
| Julie Mcguire       | Seattle, WA           | Carole Olson       | Bothell, WA       |
| William Mcgunagle   | Spokane, WA           | Mary Onufer        | Issaquah, WA      |
| Todd Mckenney       | Grapeview, WA         | Tyler Otto         | Maple Valley, WA  |
| Elisa Mckinzie      | Federal Way, WA       | Tracy Ouellette    | Bow, WA           |
| Julia Mclaughlin    | Rochester, WA         | Leah Ouellette     | Olympia, WA       |
| Tom Mcneely         | Bellingham, WA        | Grace Padelford    | Kirkland, WA      |
| Lauren Mcneil       | Tacoma, WA            | Julieann Palumbo   | Port Orchard, WA  |
| Jill Meier          | Bellingham, WA        | Anand Parikh       | Edmonds, WA       |
| Margie Meis         | Everett, WA           | Roni Jo Patterson  | Seattle, WA       |
| Jonathan Melusky    | Shoreline, WA         | Va Paulsen         | Seattle, WA       |
| Lauren Mendez       | Auburn, WA            | Fay Payton         | College Place, WA |
| Dee Merrill         | Seattle, WA           | Dina Pearlthomas   | Bellingham, WA    |
| Robert Meyer        | Seattle, WA           | Celia Pedersen     | Brinnon, WA       |
| Marilee Meyer       | Port Angeles, WA      | Karen Penaluna     | Langley, WA       |
| Susan Michaels      | Camano Island, WA     | Gregory Penchoen   | Roy, WA           |
| Dave Middleton      | Seattle, WA           | Lela Perkins       | Everett, WA       |
| Lisa M. Mintz Kavas | Lynnwood, WA          | Joan Peter         | Gig Harbor, WA    |
| Jolie Misek         | Olympia, WA           | Thom Peters        | Snohomish, WA     |
| Ben Moore           | Mountlake Terrace, WA | Erica Peters       | Seattle, WA       |
| Diane Moore         | Electric City, WA     | Sherry Petersen    | Mount Vernon, WA  |
| Ryan Moore          | Maple Valley, WA      | Shelly Peterson    | Anacortes, WA     |
| Anna Morrison       | Spokane Valley, WA    | Cynthia Petrich    | Anacortes, WA     |
| France Morrow       | Yakima, WA            | Timothy Petsch     | Manchester, WA    |
| James Mulcare       | CIARton, WA           | Patricia Pickering | Woodinville, WA   |
| Cole Mumper         | Bellingham, WA        | Jennifer Pickett   | Silverdale, WA    |
| Patricia Murphy     | Seattle, WA           | Randall Potts      | Bellingham, WA    |
| Jeanie Murphy       | Seattle, WA           | Debbi Pratt        | Seattle, WA       |
| Mecky Myers         | Redondo Beach, WA     | Jill Prevendar     | Vancouver, WA     |
| Mary N              | Vancouver, WA         | Mara Price         | Marysville, WA    |
| Desiree Nagyfy      | Deer Park, WA         | Ann Pryich         | Mount Vernon, WA  |
| Stephen Neal        | Buckley, WA           | Lauren Ranz        | Bellingham, WA    |
| Sally Neary         | Kent, WA              | Peter Reagel       | Seattle, WA       |
| Tim Nelsen          | Vashon, WA            | Katherine Reed     | Mukilteo, WA      |
| Katherine Nelson    | Kent, WA              | Paul Reid          | Snohomish, WA     |

|                       |                     |                    |                       |
|-----------------------|---------------------|--------------------|-----------------------|
| Lisa Reising          | Seattle, WA         | Patrick Soby       | Seattle, WA           |
| Lila Rhodes           | Lynnwood, WA        | Mary Solum         | Bellingham, WA        |
| Geoffrey Richards     | Poulsbo, WA         | Nancy Sonnenfeld   | Bellingham, WA        |
| Jean Richardson       | Bellingham, WA      | Cathy Spalding     | Olympia, WA           |
| Tamela Roberson       | Everett, WA         | Andrea Speed       | Tacoma, WA            |
| Jim And Nancy Roberts | Kirkland, WA        | Andrea Speed       | Tacoma, WA            |
| Celeste Robinette     | Indianola, WA       | Nancy Spencer      | Edmonds, WA           |
| Bob Rodgers           | Brush Prairie, WA   | Mary Sprute        | Edmonds, WA           |
| Randall Roebuck       | Lynden, WA          | Suzanne Steel      | Blaine, WA            |
| David Roehm           | Ocean Park, WA      | Lori Stefano       | Yelm, WA              |
| Janna Rolland         | Seattle, WA         | David Stetler      | Kirkland, WA          |
| Janet Roller          | Lacey, WA           | Kristin Stewart    | Olympia, WA           |
| John Rose             | Seattle, WA         | Tonya Stiffler     | Shoreline, WA         |
| Barbara Rosenkotter   | Deer Harbor, WA     | Cary Stitt         | Centralia, WA         |
| Andrew Rosenthal      | Seattle, WA         | Sue Stoeckel       | Everett, WA           |
| Elena Rumiantseva     | Seattle, WA         | Arieh Stolar       | Federal Way, WA       |
| Shauna Rumsey         | Olympia, WA         | Judith Stone       | Kent, WA              |
| Dale Russ             | Tukwila, WA         | Leslie Stone       | Ellensburg, WA        |
| John S                | Seattle, WA         | Tristan Stone      | Spokane, WA           |
| Tamara Saarinen       | Gig Harbor, WA      | Arnold Strang      | Mountlake Terrace, WA |
| Gretchen Anna Sand    | Kennewick, WA       | Diane Sullivan     | Oak Harbor, WA        |
| Janet Saupp           | Port Townsend, WA   | Molly Sutor        | Spokane, WA           |
| Terri Savannah        | Vancouver, WA       | Daniel Swink       | Vancouver, WA         |
| Barbara Scavezze      | Olympia, WA         | Thomas Swoffer     | Ravensdale, WA        |
| Dan Schneider         | Seattle, WA         | F T                | Orting, WA            |
| Danny Schneider       | Seattle, WA         | Karla Taylor       | Olympia, WA           |
| Monica Schuh          | Lynnwood, WA        | Pandora Taylor     | Gig Harbor, WA        |
| Margaret Schultz      | Freeland, WA        | Cornelia Teed      | Bellingham, WA        |
| Denee Scribner        | Nine Mile Falls, WA | Kimberly Teraberry | Seattle, WA           |
| Kimberly Seater       | Seattle, WA         | Susan Thiel        | Spanaway, WA          |
| Nancy Sefton          | Poulsbo, WA         | Suzanne Thielen    | Seattle, WA           |
| Paula Shafransky      | Sedro Woolley, WA   | Kim Thomas         | Granite Falls, WA     |
| Jillian Shea          | PORT LUDLOW, WA     | Al Thomas          | Tacoma, WA            |
| David Shokenu         | Tacoma, WA          | Rob Thompson       | PUYALLUP, WA          |
| Barbara Sim           | Seattle, WA         | Lester Thompson    | Seattle, WA           |
| Shelley Simcox        | Bremerton, WA       | Debbie Thorn       | Kirkland, WA          |
| Kathleen Sisson       | Kent, WA            | Rose Thygesen      | Shoreline, WA         |
| Gloria Skouge         | Shoreline, WA       | David Todnem       | Port Angeles, WA      |
| Sasha Slayton         | Kent, WA            | Teresa Tomasek     | Everett, WA           |
| Ron Slosky            | Seattle, WA         | Brandenn Torkelson | Seattle, WA           |
| Carol Smith           | Sedro Woolley, WA   | Barbara Tountas    | Shoreline, WA         |
| William Sneiderwine   | Vancouver, WA       | Kathryn Townsend   | Olympia, WA           |
| Donna Snow            | Lacey, WA           | Sean Townsend      | Olga, WA              |

|                       |                    |                         |                       |
|-----------------------|--------------------|-------------------------|-----------------------|
| Carolyn Treadway      | Lacey, WA          | Isabella Zandona        | Sammamish, WA         |
| Thomas Trescone       | Seattle, WA        | Patty Zeitlin           | Seattle, WA           |
| Tammi Turner-Franklin | Issaquah, WA       | Laura Zerr              | Auburn, WA            |
| David Turnoy          | Eastsound, WA      | Stephen Zettel          | Sequim, WA            |
| Adam Udovich          | Olympia, WA        | Daniel Zizza            | Seattle, WA           |
| Jill Ungar            | Ellensburg, WA     | Pete Zucker             | Eastsound, WA         |
| Victoria Urias        | Seattle, WA        | Lowell Austin           | Huntington, WV        |
| Steve Uyenishi        | Seattle, WA        | Patty Bachner           | Shepherdstown, WV     |
| Selim Uzuner          | Carnation, WA      | F Bean                  | Romney, WV            |
| Emily Van Alyne       | West Richland, WA  | Michele Boucher         | Martinsburg, WV       |
| Jenny Vest            | Bothell, WA        | Jane Butler             | Hedgesville, WV       |
| Barbara Vigars        | Edmonds, WA        | Mary Ann Dalton         | Weirton, WV           |
| Rose Mary Volbrecht   | Spokane, WA        | Leslie Devine-Milbourne | Berkeley Springs, WV  |
| Judith Von Kleinsmid  | Seattle, WA        | Diane Difante           | Martinsburg, WV       |
| Barbara Voss          | Lynnwood, WA       | Melody Fish             | Martinsburg, WV       |
| Jan Wachholz          | Woodinville, WA    | Jessie Fumerola         | Buckhannon, WV        |
| Gary Wagner           | Burien, WA         | Tammi Garvin            | Martinsburg, WV       |
| Marshall Wagner       | Duvall, WA         | Scott Gibson            | Saint Albans, WV      |
| Lisa Walter           | Woodinville, WA    | Joan Hansen             | Beckley, WV           |
| Elizabeth Walton      | Sammamish, WA      | Sharon Hurley           | Normantown, WV        |
| Linda Wasserman       | Tacoma, WA         | Michael Klausing        | Nitro, WV             |
| Elsie Wattson Lamb    | Bellingham, WA     | Suzanne Kruger          | Harpers Ferry, WV     |
| Judith Weed           | Des Moines, WA     | Maggie Loudon           | Hedgesville, WV       |
| Elyette Weinstein     | Olympia, WA        | Dixie Mullineaux        | Berkeley Springs, WV  |
| Warren Weissman       | Camano Island, WA  | Victoria Pendragon      | Paw Paw, WV           |
| Cabell Westbrook      | Vancouver, WA      | Paula Rust              | Shepherdstown, WV     |
| Jennifer Westra       | Spokane, WA        | Nica Sharshon           | Big Bend, WV          |
| Kathleen Wheeler      | Deer Park, WA      | Jamie Shultz            | Morgantown, WV        |
| Nancy White           | Spokane Valley, WA | Kim Smith               | Beverly, WV           |
| Barbara Wight         | Edmonds, WA        | Harlan Smith            | Huntington, WV        |
| Kathryn Wilham        | Suquamish, WA      | Arthur Stone            | Hedgesville, WV       |
| Maureen Wilhelm       | Seattle, WA        | Chris Vanderhoof        | Martinsburg, WV       |
| Greg Willett          | Wauna, WA          | Carole Williams         | Morgantown, WV        |
| Diana Williams        | Lacey, WA          | Julie Abitz             | Green Bay, WI         |
| Susan Wilson          | Kent, WA           | Brad J Abraham          | Neenah, WI            |
| Kathy Wilson          | Port Ludlow, WA    | Maggie Alk              | Green Bay, WI         |
| David Winthrop        | Camano Island, WA  | Judy Allen              | Black River Falls, WI |
| Perry Wong            | Kent, WA           | Eric Andersen           | Kaukauna, WI          |
| Angela Wood           | Bothell, WA        | Margaret Asselin        | Janesville, WI        |
| R Wood                | City, WA           | Season B                | New Berlin, WI        |
| Bradley Wright        | Shoreline, WA      | Lisa Barrett            | Beloit, WI            |
| Janet Wynne           | Bellingham, WA     | Rhonda Bast             | Racine, WI            |
| Steven Yanoff         | Port Townsend, WA  | Jean Bates              | White Lake, WI        |

Alan Bauer Waupaca, WI  
 Laura Belgiorno Grafton, WI  
 Lisa Bell Appleton, WI  
 Faith Benson Wauwatosa, WI  
 Devin Benson La Crosse, WI  
 Kathryn Berkey Eau Claire, WI  
 Manuel Bermudez Big Bend, WI  
 Kate Bernardo Ashland, WI  
 Brian Berninger Sun Prairie, WI  
 Lisa Bey Stevens Point, WI  
 Rama Bharadwaj Port Washington, WI  
 Jocelyn Blake Brooklyn, WI  
 Terri Bleck Madison, WI  
 James Bond Green Bay, WI  
 Gregory Bracken Neenah, WI  
 Marya Bradley Milwaukee, WI  
 Kathryn Bretl Port Washington, WI  
 Jaxon Brooks Darien, WI  
 Neil Brookshire Egg Harbor, WI  
 Kumassi Browne Milwaukee, WI  
 Ellen Browning Fall River, WI  
 Melissa Bryan OnAK, WI  
 Rylie Buchanan Jackson, WI  
 Tiffany Buell Cudahy, WI  
 Michelle Buerger Middleton, WI  
 Mary Burek-Faber OR, WI  
 Bonnie Butts Rosholt, WI  
 Dean Butts Rosholt, WI  
 Paula Carlson Milwaukee, WI  
 Chris Casper Stevens Point, WI  
 Linda Chance South Milwaukee, WI  
 Laura Charles De Pere, WI  
 Linda Chivers Waukesha, WI  
 Yvonne Christison Stevens Point, WI  
 Bob Clarke Milwaukee, WI  
 Jennifer Clements Manitowoc, WI  
 Theodore Cochrane Madison, WI  
 Andrea Cockerham Milwaukee, WI  
 Raymond Cohen Rhinelander, WI  
 David Cook Appleton, WI  
 Madeline Crane Milwaukee, WI  
 Aleasa Crary Madison, WI  
 Holly Dahms Menomonee Falls, WI

Patricia Daniels Germantown, WI  
 Pamela Davidson Fond Du Lac, WI  
 Elizabeth Davy Oconomowoc, WI  
 Carla Deits Madison, WI  
 Marie Claire Deluna Fort Atkinson, WI  
 Matthew Demars Madison, WI  
 Jennifer Denetz Appleton, WI  
 Sandy Dewalt Caledonia, WI  
 Cheryl Diehl Hubertus, WI  
 Dick Dierks Appleton, WI  
 Gayle Doukas FRANKLIN, WI  
 David Drecktrah Appleton, WI  
 Isabelle Druc Blue Mounds, WI  
 Harvey Dym Madison, WI  
 Brooke Edwardson Appleton, WI  
 Mike Ehr Milwaukee, WI  
 James Eichman Milwaukee, WI  
 Mary Emerich Kaukauna, WI  
 Walter Emerich Kaukauna, WI  
 Sven Fielder Stevens Point, WI  
 Helen Findley Madison, WI  
 Adam Fogel Mount Pleasant, WI  
 Adam Fogel Mount Pleasant, WI  
 Frank Florin Boyceville, WI  
 Bonnie Forseth Baraboo, WI  
 Jessica Foster Milwaukee, WI  
 Beverly Fowler Cottage Grove, WI  
 Joy Fricke Greenfield, WI  
 Timothy Fridsma Rhinelander, WI  
 Andrea Fritz Milwaukee, WI  
 Joyce Frohn Oshkosh, WI  
 Kay Gabriel Madison, WI  
 John Gajewski Milwaukee, WI  
 Jace Galley Neenah, WI  
 William Goell Oconomowoc, WI  
 Bobbie Goelzer Columbus, WI  
 Joseph Goltz Monroe, WI  
 Karen Goodstein Milwaukee, WI  
 Linda Gottschalk Green Bay, WI  
 Elaine Greenwood Milwaukee, WI  
 Susan Gregersen Delavan, WI  
 Kathleen Gribble Appleton, WI  
 Norda Gromoll Eagle River, WI



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|----------------------|---------------------|---------------------|-----------------------|
| Richard Guevara      | Plover, WI          | Kathleen Knoeppel   | Hartland, WI          |
| Brent Gunderson      | Green Bay, WI       | Kim Koeck           | Oshkosh, WI           |
| Howard Gundlach      | Madison, WI         | Aleks Kosowicz      | Abrams, WI            |
| Ellen Gutfleisch     | Sussex, WI          | Jean Kowalski       | Milwaukee, WI         |
| Brandon H            | Hortonville, WI     | Susan Kozinski      | St Francis, WI        |
| Nicole Hafemeyer     | New Richmond, WI    | Sharon Kusmirek     | Milwaukee, WI         |
| John Hagen           | Monroe, WI          | Dana Lafontsee      | Waterford, WI         |
| Amy Haines           | Racine, WI          | Robin Langenbach    | Milwaukee, WI         |
| James Hanger         | Reedsburg, WI       | Marc Lemaire        | Viroqua, WI           |
| Pete Hansen          | Glendale, WI        | Mary Lewandowski    | Rhineland, WI         |
| Doris Hansen         | Glendale, WI        | Diana Lewis         | Oconomowoc, WI        |
| Delene Hanson        | Hales Corners, WI   | Riccardo Liotta     | Plymouth, WI          |
| Katie Hauke          | Madison, WI         | Constance Lorig     | De Pere, WI           |
| Carolyn Hawk         | New Franken, WI     | Paul Lucas          | Madison, WI           |
| Mary Hayes           | Kenosha, WI         | Jim Luebke          | Fond Du Lac, WI       |
| Lawrence Held        | Menomonee Falls, WI | Elizabeth Mackelvie | Appleton, WI          |
| Lisa Heller          | Melrose, WI         | Jill Madigan        | Milwaukee, WI         |
| Glenda Henning       | Marshfield, WI      | Vic Mandarich       | East Troy, WI         |
| Janet Henning        | Portage, WI         | Jacqueline Mason    | Wisconsin Rapids, WI  |
| Sandra Hering        | Oshkosh, WI         | Jean Mathes         | Brownsville, WI       |
| Joanne Hesselink     | Neshkoro, WI        | Terry Mathie        | Wausau, WI            |
| Lisa Hoch            | Superior, WI        | Stratton Mcallister | Delafield, WI         |
| Sam Holm             | Milwaukee, WI       | Michelle Mccammick  | OR, WI                |
| Catherine Holzman    | Baraboo, WI         | Sarah Mcquown       | Milwaukee, WI         |
| Beth Huizenga        | Waukesha, WI        | Gerald Meslar       | Edgerton, WI          |
| Phil Immerfall       | Appleton, WI        | Joe Meyer           | Amery, WI             |
| Kim Irvin            | Menasha, WI         | Tanya Milanowski    | Balsam Lake, WI       |
| Jean Jakusz          | Milwaukee, WI       | Sara Miller         | Mukwonago, WI         |
| Sharon James         | Madison, WI         | Lester Miller       | Franklin, WI          |
| Christine Johnson    | Greenfield, WI      | Samuel Morningstar  | Milwaukee, WI         |
| Camille Johnson      | MIDDLETON, WI       | Jane Morse          | Mountain, WI          |
| Renee Joos           | Milwaukee, WI       | Edward Mrkvicka     | Fort Atkinson, WI     |
| Mary Juneke          | Mukwonago, WI       | Prem Mulberry       | Wisconsin Dells, WI   |
| Melissa Jurkowski    | Fond Du Lac, WI     | Margaret Murphy     | milwaukee, WI         |
| Lance Kammerud       | Blanchardville, WI  | Connie Myers        | Janesville, WI        |
| Paul Kanehl          | Sauk City, WI       | K N                 | Muskego, WI           |
| Barbara Kashian-Snow | Middleton, WI       | Sara Nason          | Elkhorn, WI           |
| Anita Kelly          | Oak Creek, WI       | Peter Nelson        | Eau Claire, WI        |
| Luke Kiel            | Manitowoc, WI       | Jane Nicholson      | Manitowish Waters, WI |
| Kaitlyn Kittell      | Seymour, WI         | J Noble             | Fitchburg, WI         |
| Hunter Klapperich    | Stanley, WI         | Russell Novkov      | Madison, WI           |
| Terrance Kluz        | Schofield, WI       | Mariette Nowak      | East Troy, WI         |
| Helen Knauer         | Milwaukee, WI       | Michael Obrien      | Sturtevant, WI        |

|                      |                   |                      |                   |
|----------------------|-------------------|----------------------|-------------------|
| Lorrie Ogren         | Mt Pleasant, WI   | Tracy Schroeffer     | Monona, WI        |
| Diane Olson Schmidt  | Milwaukee, WI     | A Schultz            | Watertown, WI     |
| David Ortiz          | Franklin, WI      | Dave Searles         | Brodhead, WI      |
| Chris Ottosen        | Shell Lake, WI    | Donna Selquist       | Florence, WI      |
| Bob Ottosen          | Shell Lake, WI    | Teresa Sem           | New Berlin, WI    |
| Maureen Ouellette    | Greenfield, WI    | Jane Maya Shippy     | Stevens Point, WI |
| Estelle Paddock      | Mukwonago, WI     | Gladys Simerl        | Brookfield, WI    |
| Cheryl Palop         | Spooner, WI       | Joyce Sincher        | Sun Prairie, WI   |
| Ellen Parker         | La Crosse, WI     | Laura Smith          | Poynette, WI      |
| Bob Pavlovich        | Franklin, WI      | Guy Somers           | Madison, WI       |
| Debra Pedersen       | Caledonia, WI     | Katarina Spelter     | Madison, WI       |
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| Pat Pesko            | Rice Lake, WI     | Gary Steglich        | Barron, WI        |
| Linda Pflugrad       | Kenosha, WI       | Carol Steinhart      | Madison, WI       |
| Johnny Pflugrad      | Kenosha, WI       | Mia Stein-Kodzick    | Lisbon, WI        |
| Terrie Phenicie      | Athelstane, WI    | Christina Stemwell   | Saint Francis, WI |
| Richard Phillips     | Dodgeville, WI    | Wayne Stroessner     | Random Lake, WI   |
| Pat Pire             | Milwaukee, WI     | Debbie Sundholm      | Menomonee Fls, WI |
| Rollin Pizzala       | Kenosha, WI       | Kathie Swanson       | Mineral Point, WI |
| Judy Plambecj        | Madison, WI       | Michelle Talhami     | Shorewood, WI     |
| Shirley Powell       | Johnson Creek, WI | Teresa Tario         | Green Bay, WI     |
| Bradley Prentice     | Milwaukee, WI     | Dorismarie Thrasher  | Milwaukee, WI     |
| Ian Proctor          | Stevens Point, WI | Sonette Tippens      | Lake Geneva, WI   |
| John Quinn           | Madison, WI       | Jackie Tryggeseth    | North Freedom, WI |
| Jane Ralph           | Washburn, WI      | Jerrilynn Tzakis     | Milwaukee, WI     |
| Debbie Ramos         | Renton, WI        | Ann Unertl           | Janesville, WI    |
| Lynn Ricci           | Hudson, WI        | Julia Vandegrift     | Greenfield, WI    |
| David Rieckmann      | Pardeeville, WI   | Theodore Voth        | Madison, WI       |
| William Rither       | Milwaukee, WI     | P. W.                | Chicago, WI       |
| Jean Roberts         | New Glarus, WI    | Ashley Wang          | Grafton, WI       |
| Kurt Robinson        | Florence, WI      | Donna Watson         | Stevens Point, WI |
| Joy Rosenberry Chase | Madison, WI       | Colleen Weddig       | Park Falls, WI    |
| Miriam Ross          | West Allis, WI    | Mary Weeden          | Lake Geneva, WI   |
| Russ Rothman         | Waunakee, WI      | Christine Wehrenberg | Oconomowoc, WI    |
| Ron Rutzinski        | Sussex, WI        | Jennifer Weyer       | MILWAUKEE, WI     |
| D S                  | Hudson, WI        | Cathy White          | Hager City, WI    |
| Britton Saunders     | Milwaukee, WI     | Herman Whiterabbit   | Madison, WI       |
| Judy Savard          | Laona, WI         | Bryan Whiting        | Madison, WI       |
| Chris Schaub         | Sussex, WI        | Joseph Wiesner       | Milwaukee, WI     |
| Karen Schlais        | New Berlin, WI    | Todd Williams        | Johnson Creek, WI |
| Jeffrey Schmid       | Frederic, WI      | Annetta Winkle       | Kenosha, WI       |
| Roger Schmidt        | Sun Prairie, WI   | Janet Wolfe          | Marshfield, WI    |
| Brandon Schrank      | Reedsburg, WI     | Catherine Woodward   | Madison, WI       |

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 Brian Yanke  
 Laura Yurs  
 Ed Zych  
 Cindy Booth  
 Annie Brock  
 Linda Buckingham  
 Al Carlson  
 Lisa Corbett  
 William Crawford  
 Robert Ferrara  
 Evelyn Griffin  
 Mark Heineken  
 Geri Johnson  
 Michael Krall  
 Donna Lawrence  
 Dawn Lynn  
 Joni Madere  
 Lenamae Maki  
 Emilee Mandros  
 Terry McClellan  
 Larry Mellick  
 Macey Mott  
 Deborah Richards  
 Dorothy Savage  
 Isabelle Spivey  
 Ellen Stump  
 Judith Wilson  
 Ms Zentura  
 Marianne Arcuni  
 Uwe Blesching  
 Mary Bourgeois  
 Becky Brinkely  
 Pat Calderbank  
 Kirby Carter  
 Mo Collins  
 Nancy Correa  
 Launa Ellison  
 Michelle Hiles  
 M Jak  
 Kate King  
 Veronica Maiorano  
 Casey Malone

Lodi, WI  
 Madison, WI  
 Plymouth, WI  
 Cameron, WI  
 Wilson, WY  
 Laramie, WY  
 Casper, WY  
 Story, WY  
 Evanston, WY  
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 Cheyenne, WY  
 Pavillion, WY  
 Jackson, WY  
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 Burns, WY  
 Rock Springs, WY  
 Laramie, WY  
 Cheyenne, WY  
 Wheatland, WY  
 Casper, WY  
 Dumfries,  
 Berkeley,  
 Mount Prospect,  
 Olathe,  
 Preston,  
 Alexandria,  
 Downingtown,  
 Wethersfield,  
 Minneapolis,  
 Oroville,  
 Oakland,  
 Dresden,  
 Lecce,  
 Blaine,

Soraya Mazarei  
 Ben Meighen  
 Alan Mitchell  
 Anne Morrison  
 Ana Salinas  
 Brett Sklove  
 Judi Slate  
 James Stephens  
 Sandra Turner  
 Brendan Warning  
 Ann Wolfe

Chevy Chase,  
 Washington,  
 New York,  
 Mequon,  
 Austin,  
 Petaluma,  
 Elmhurst,  
 Trenton,  
 Sharpsburg,  
 St Petersburg,  
 Deale,

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] Oceana Comments on Federal Offshore Oil and Gas Program

**Date:** Thu, 15 Apr 2021 21:38:53 +0000

**Inline-Images:** image001.png

---

Hello Diane,

Thank you very much for the submissions and engagement with the review.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Thursday, April 15, 2021 5:29 PM  
**To:** Energy Review <energyreview@ios.doi.gov>  
**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] Oceana Comments on Federal Offshore Oil and Gas Program

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Please find attached, Oceana's official comments on the Federal Offshore Oil and Gas Program in response to the Department's request for public input on Interior's comprehensive review as called for in Executive Order 14008. Additionally, a petition from more than 13,000 Oceana wavemaker supporters.

Due to size limitations our supporting materials were too large to attach but can be downloaded here:

[https://drive.google.com/drive/folders/1PSBhKhO1jC\\_zrS25ZH976hmJh20a3JPt?usp=sharing](https://drive.google.com/drive/folders/1PSBhKhO1jC_zrS25ZH976hmJh20a3JPt?usp=sharing)

Thank you—  
Diane Hoskins

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036

D 202.467.1948 | C 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** Re: [EXTERNAL] Oceana contact (replacing Diane Hoskins)

**Date:** Wed, 20 Sep 2023 18:57:01 +0000

**Inline-Images:** image001.png

---

Hello Mike!

Yes indeed, we have your name and contact info as the primary Oceana contact. I hope you're doing well!

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Messmer, Michael <mmessmer@oceana.org>

**Sent:** Wednesday, September 20, 2023 2:46 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Oceana contact (replacing Diane Hoskins)

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Happy Wednesday. I know I mentioned when I saw you last that I had taken Diane's place as acting campaign director until we hire somebody. We still haven't hired anybody, and I have no idea when that will finally take place. In the meantime, I wanted to make sure BOEM has me listed as the contact in the event its reaching out on anything oil and gas related and that nobody's trying to reach Diane. All my contact information is below my signature. Is there anybody else on your end I should provide this information to?

Many thanks. Hope you had a decent summer break in some way, shape, or form. I drove from here to Ohio and back in late August to look at presidential sites (needed something cheap to do away from DC).

Sincerely,  
Mike

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200

Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "william.brown@boem.gov" <william.brown@boem.gov>, "megan.carr@boem.gov" <megan.carr@boem.gov>, "jill.lewandowski@boem.gov" <jill.lewandowski@boem.gov>, "marissa.knodel@boem.gov" <marissa.knodel@boem.gov>, "michael.celata@boem.gov" <michael.celata@boem.gov>, "james.kendall@boem.gov" <james.kendall@boem.gov>, "douglas.boren@boem.gov" <douglas.boren@boem.gov>

**Cc:** "Levison, Lara" <LLevison@oceana.org>, "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** [EXTERNAL] Offshore Drilling: New Polling, New Oceana Report, & Recent FL Ad Campaign

**Date:** Fri, 28 Apr 2023 17:31:44 +0000

**Inline-Images:** image001.png

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Hi there,

I'm reaching out to share three updates:

1. **New polling** on voters' opinions on new offshore oil and gas drilling
2. **A new report**, released last week, finds President Biden can prevent new offshore drilling in his upcoming offshore leasing plan and still deploy 30 GW of offshore wind by 2030.
3. Recent ad campaign in Florida

#### 1. **Polling Results**

Lake Research Partners conducted a poll on behalf of the [Protect Our Coast](#) coalition, testing voters' opinions on new offshore oil and gas drilling and President Biden's climate commitments.

**Most voters do not want to expand offshore drilling and prefer bringing online new clean energy sources over dirty offshore oil and gas.**

Learn more: <https://www.protectallourcoasts.org/news-and-resources/#reports>

The survey reached a total of 1000 registered voters nationwide with additional samples in Florida, North Carolina, Georgia, and in the Gulf States (Alabama, Louisiana, Texas, and Mississippi) and found that voters overwhelmingly prefer clean energy and support proposals to prevent new offshore drilling

**We're happy to help arrange a briefing for you with Lake Research Partners on the results.**

## 2 New Report

Oceana's [report](#) marks the 13th anniversary of the worst oil spill in U S history, the BP *Deepwater Horizon* disaster. The report finds that despite the Inflation Reduction Act's provisions linking offshore oil and gas drilling lease sales to offshore wind energy lease sales, it is not necessary to lease more of our ocean does to oil and gas companies.

**Among the key findings: President Biden can still prevent new oil and gas leases in 2024 and beyond through the five year planning process, and he can also exceed his goal of 30 gigawatts of offshore wind development by 2030.** The report also finds that offshore drilling remains dirty and dangerous, with significant safety shortcomings that will not prevent another disaster like the BP *Deepwater Horizon* oil spill

- [Report](#)
- [Press Release](#)

## 3. Recent ad campaign in Florida

On Sunday April 16, full page ads ran in the Sarasota Herald and the Tallahassee Democrat newspapers calling on Gov. DeSantis to prevent new leasing in the federal government's offshore drilling plan. A visual can be found on Oceana's blog: <https://usa.oceana.org/blog/oceana-calls-on-gov-ron-desantis-to-prevent-new-offshore-drilling/>.

If you have any questions or would like to schedule a briefing with Lake Research Partners, please don't hesitate to let us know.

Many thanks.

Sincerely,  
Mike Messmer

**Michael Messmer** | Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA



**D** +1.202.467.1957 | **M** +1.202.286.0667  
**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "elizabeth.klein@boem.gov" <elizabeth.klein@boem.gov>

**Cc:** "Cook, Karla" <karla.cook@boem.gov>, "Levison, Lara" <LLevison@oceana.org>, "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** [EXTERNAL] Offshore Drilling: New Polling, New Oceana Report, & Recent FL Ad Campaign

**Date:** Fri, 28 Apr 2023 17:36:40 +0000

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Director Klein,

I'm reaching out to share three updates:

1. **New polling** on voters' opinions on new offshore oil and gas drilling
2. **A new report**, released last week, finds President Biden can prevent new offshore drilling in his upcoming offshore leasing plan and still deploy 30 GW of offshore wind by 2030.
3. Recent ad campaign in Florida

#### 1. **Polling Results**

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**Most voters do not want to expand offshore drilling and prefer bringing online new clean energy sources over dirty offshore oil and gas.**

Learn more: <https://www.protectallourcoasts.org/news-and-resources/#reports>

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Georgia, and in the Gulf States (Alabama, Louisiana, Texas, and Mississippi) and found that voters overwhelmingly prefer clean energy and support proposals to prevent new offshore drilling

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**Among the key findings: President Biden can still prevent new oil and gas leases in 2024 and beyond through the five year planning process, and he can also exceed his goal of 30 gigawatts of offshore wind development by 2030.** The report also finds that offshore drilling remains dirty and dangerous, with significant safety shortcomings that will not prevent another disaster like the BP *Deepwater Horizon* oil spill

- [Report](#)
- [Press Release](#)

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If you have any questions or would like to schedule a briefing with Lake Research Partners, please don't hesitate to let us know.

Many thanks.

Sincerely,  
Mike Messmer

**Michael Messmer** | Senior Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** Katherine Tsantiris <ktsantiris@oceanconservancy.org>

**To:** "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>, "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>, "Rodney.Cluck@boem.gov" <Rodney.Cluck@boem.gov>, "william.brown@boem.gov" <william.brown@boem.gov>, "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "james.bennett@boem.gov" <james.bennett@boem.gov>, "Jill.Lewandowski@boem.gov" <Jill.Lewandowski@boem.gov>, "Michelle.Morin@boem.gov" <Michelle.Morin@boem.gov>, "Kyle.Baker@boem.gov" <Kyle.Baker@boem.gov>, "Brian.Hooker@boem.gov" <Brian.Hooker@boem.gov>

**Cc:** Amy Trice <atrice@oceanconservancy.org>, "bowes@nwf.org" <bowes@nwf.org>, "ngreene@nrdc.org" <ngreene@nrdc.org>, "achase@nrdc.org" <achase@nrdc.org>, "Cleland, Valerie" <VCleland@nrdc.org>

**Subject:** [EXTERNAL] Offshore Wind | Conservation Community Recommendations

**Date:** Thu, 29 Apr 2021 17:08:20 +0000

**Attachments:** Letter\_on\_Responsible\_Offshore\_Wind\_Development\_to\_DOI\_DOC\_DOE\_April\_2021.pdf  
; 04.15.2021\_Community\_Letter\_in\_Support\_of\_Offshore\_Wind\_Appropriations.pdf

**Inline-Images:** image003.jpg

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good afternoon,

It was great to have the chance to meet with some of you yesterday as part of the call with environmental organizations engaged on offshore oil and gas. Thank you again for being so generous with your time and for your thoughtful responses to the questions that were raised. We continue to appreciate this administration's leadership and commitment to taking action on climate and transitioning towards renewable energy.

We wanted to reach out to share the attached letter to Secretary Haaland, Secretary Raimondo, and Secretary Granholm. The letter is from a range of conservation groups who are working to advance offshore wind at the state, regional, and national level. The letter outlines several high-level recommendations based on our experience working on responsible offshore wind over the last several years. In addition to the letter with recommendations to the administration, for your reference I am also attaching a letter that we shared with the appropriations committee in support of providing the funding that is needed to ensure that offshore wind is advanced successfully and responsibly.

We recognize that there is a lot of work to be done and we look forward to working with you to ensure that the administration's commitments are successful. We would welcome the opportunity to meet with you to discuss these recommendations and our work on offshore wind in more detail if that would be helpful.

I'm cc'ing my colleague Amy Trice, who is the Ocean Planning Director and offshore wind expert at Ocean Conservancy in addition to Ali Chase (NRDC), Valerie Cleland (NRDC), Nathanael Greene (NRDC) and Catherine Bowes (NWF).

Please let us know how we can best assist you moving forward, and we look forward to continuing to work with you to responsibly advance offshore wind.

Thank you,

Kathy Tsantiris



Katherine Tsantiris  
she/her/hers  
Senior Manager, Government Relations  
1300 19th Street NW, 8th Floor  
Washington, DC 20036  
O 202 280 6259  
F: 202.872.0619  
[ktsantiris@oceanconservancy.org](mailto:ktsantiris@oceanconservancy.org)  
[Web](#) | [Facebook](#) | [Twitter](#)

April 29, 2021

The Honorable Deb Haaland  
Secretary  
U.S Department of the Interior  
1849 C Street NW  
Washington, DC 20240

The Honorable Gina M. Raimondo  
Secretary  
U.S. Department of Commerce  
1401 Constitution Avenue NW  
Washington, DC 20230

The Honorable Jennifer Granholm  
Secretary  
U.S. Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

Dear Secretary Haaland, Secretary Raimondo, and Secretary Granholm,

Congratulations on your confirmations to lead the U.S. Departments of Interior, Commerce, and Energy at this pivotal moment in history as America faces unprecedented intersecting environmental, public health, and economic crises that exacerbate racial and social injustices and present an existential threat to the planet.

We strongly support the Biden-Harris administration's bold, early leadership on climate and applaud the recent commitment to reduce U.S. emissions by 50 percent below 2005 levels by 2030. Responsibly developed offshore wind power is essential for achieving this important goal. Your recent cross-department commitment to deploy 30 GW of offshore wind energy by 2030 while protecting biodiversity, cultural resources, and ocean uses is exciting and much needed. The recent remarks made at the Leaders Summit on Climate point to the urgency in attaining our climate goals. As your departments work together to address and mitigate climate change and Build Back Better, it is critical that scientific integrity and robust stakeholder input guide the launch of this essential new clean energy industry for America.

Our organizations have long called for the responsible development of offshore wind energy that first avoids, then minimizes and mitigates impacts to marine wildlife, habitat, and other ocean uses. Doing so requires a decision-making process that meaningfully engages stakeholders from the start and uses best available science. A well-funded, whole-of-government approach is exactly what is needed to ensure offshore wind energy projects move forward with strong environmental protections in place, while fostering good jobs and supporting coastal and inland economic opportunities.

**To effectively advance offshore wind energy development, we encourage continuation of your coordinated approach.** To facilitate this, we suggest the selection of an interagency point person to oversee an efficient and thorough review of each of your agencies' leasing and permitting actions. This should include robust Tribal consultation; oversight of essential stakeholder input processes; early coordination among your respective agencies; comprehensive efforts to implement protected species policies; sustained investments in wildlife science and monitoring; and other initiatives critical for ensuring the federal government delivers the offshore wind leasing and permitting needed to meet current state offshore wind power contracts and procurement targets. We encourage this point person, and your departments, to prioritize collaborative discussions with leaseholders about developing marine life mitigation, monitoring, and best management practices. Additionally, conducting a high-level meeting between your agencies and the Council on Environmental Quality Chair, Director of the Office of Science and Technology Policy, the Commandant of the Coast Guard, and the Department of Defense could provide the first step in improving collaboration among the agencies that will be critical to meeting administration targets.

**Cross-department coordination is essential to ensure that we first avoid, then minimize and mitigate potential impacts to coastal and marine life while advancing offshore wind energy development.** We appreciate the work that has been done to return the strength of science to decision making. Discussions across agencies on technologies and data are needed to better address wildlife impacts, drawing on agencies' scientific expertise. Key actions to accomplish include:

- Developing regional construction calendars that schedule noisy pre-construction and construction development activities in a way that reduces cumulative noise impacts.
- Encouraging quieter foundation types which offer reduced impacts on marine wildlife while providing greater flexibility for development in terms of year-round construction and reduced need for mitigation measures.
- Requiring the best available control technology for noise, if pile driving is planned to occur, and deployment of lighting guidelines.
- Reducing vessel speeds for all vessels to avoid serious injury and mortality to the critically endangered North Atlantic right whales and other wildlife.

**We request your leadership to ensure agencies employ expert staff and deploy sufficient resources needed to develop and require standardized monitoring requirements for wildlife.** All project-level data must be made publicly available and comparable across projects to better evaluate cumulative effects. Paired baseline and post-construction monitoring, alongside the development of near real-time monitoring technologies and approaches, will be necessary to measure and improve mitigation of impacts. Special attention should be paid to threatened and endangered species and vulnerable populations. Well-designed, coordinated, and transparent monitoring protocols will not only inform responsible management of our precious natural resources but will also create the regulatory certainty necessary to launch this new clean energy industry successfully. Furthermore, when considering how to best understand and evaluate cumulative impacts, agency staff should consider programmatic reviews and analyses, where relevant or needed to increase efficiencies and standardize analysis. Programmatic National Environmental Policy Act (NEPA) efforts have been a foundational element of the Bureau of

Land Management's land-based solar energy program and have allowed for more efficient project-level NEPA analyses while allowing the agency to responsibly consider the cumulative impacts of their actions across landscapes.

**Regional-scale research is also essential for ensuring the responsible development of offshore wind power for America.** We ask that your departments continue to participate in and financially support regional offshore wind energy planning and efforts, such as the Regional Wildlife Science Entity (RWSE), led by federal and state agencies, offshore wind power developers, and nongovernmental organizations working to effectively conduct and coordinate relevant, credible, and efficient regional research of wildlife and marine ecosystems to inform impact assessments and mitigation strategies. Efforts like RWSE provide important forums for furthering responsible offshore wind development and similar multi-sectoral, regional collaborative science-based approaches are needed for all regions where offshore wind development is under consideration. All data should be made promptly available on public data systems, including the National Oceanic and Atmospheric Administration (NOAA) and BOEM jointly managed Marine Cadastre as well as the Integrated Ocean Observing System and Regional Ocean Data Portals.

**We encourage a commitment within your agencies' budgets to allocate the funding needed to facilitate the robust, ongoing federal science and technology research required** to advance the industry responsibly. NOAA's National Marine Fisheries Service Regional Fisheries Offices, Science Centers, and Office of Protected Resources, for example, need substantial resources and staff capacity to fulfill their responsibility as stewards of the nation's fisheries, sea turtles, and marine mammals, as well as their habitats. U.S. Fish and Wildlife Service Migratory Bird and Ecological Services divisions manage our bird and bat species, including endangered, threatened, and declining species that use and fly over the ocean. U.S. Geological Survey collects, monitors, analyzes, and provides scientific understanding of natural resource conditions, issues, and problems. Robust funding and providing leadership support to these and other offices across your agencies are critical to advancing offshore renewable energy in a responsible manner.

We thank you for your willingness to serve our country and look forward to working with you to ensure that America's pursuit of offshore wind power is guided by scientific integrity and robust stakeholder input every step of the way.

Sincerely,

George Povall  
Executive Director  
**All Our Energy**  
[george@allourenergy.org](mailto:george@allourenergy.org)

Garry George  
Director, Clean Energy Initiative  
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Patrick Comins  
Executive Director  
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Joy Page  
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cc: Amanda Lefton, Bureau of Ocean Energy Management Director  
Benjamin Friedman, Under Secretary of Commerce for Oceans and Atmosphere and National Oceanic and Atmospheric Administration Administrator  
Kelly Speakes-Backman, Principal Deputy Assistant Secretary for the Office of Energy Efficiency and Renewable Energy

April 15, 2021

Dear Members of the Appropriations Committee:

As you consider Fiscal Year 2022 appropriations bills, we write to express our support for providing sufficient funding for the United States to become a leader in responsibly developed offshore wind. Offshore wind in the United States is projected to increase dramatically in the upcoming years, with the Bureau of Ocean Energy Management projecting an increase from the seven offshore wind turbines that exist today, to potentially over 2,000 turbines in 2030.<sup>1</sup> Further, the Biden Administration has set an ambitious goal of achieving 30 gigawatts of offshore wind by 2030, over 700 times the amount of energy currently produced by offshore wind in the United States.<sup>2</sup> Our federal agencies are struggling to keep up with the demand for leasing, siting, and permitting of offshore wind projects today, and the significant increase in projects must be met with a significant investment in the science and technologies to research and reduce the impacts offshore wind may have on our communities, environment, and the wildlife that depends on it.

The research, monitoring and mitigation requirements needed for leasing, siting and permitting offshore wind expands beyond any single agency's jurisdiction, and advancing offshore wind successfully relies upon investments across federal departments, including the Department of Commerce, Department of the Interior, Department of Energy, and more. Agency staff within these federal departments also play a crucial role in the permitting process, utilizing this science and technology to make responsible leasing and permitting decisions that avoid adverse impacts to wildlife and their habitat. However, these federal departments need the resources to ensure offshore wind is developed in coordination with local communities, fully factoring in Tribal and Indigenous culture and resources, and avoiding, minimizing, and mitigating impacts on wildlife, our ocean environment, and all who depend on these resources. Federal agency investment and engagement to help standardize and coordinate research and monitoring of wildlife across projects is also critical to the long-term success of the industry.

We, the undersigned organizations, ask that you support increases across the federal agencies involved in offshore wind, and specifically the following funding requests within the National Oceanic and Atmospheric Administration (NOAA), Bureau of Ocean Energy Management (BOEM), US Fish and Wildlife Service (USFWS), and Department of Energy (DOE) to ensure offshore wind is developed responsibly.

*Commerce, Justice, and Science Subcommittee*

Responsibly developed offshore wind first avoids, then minimizes and mitigates impacts to ocean wildlife and habitat and other ocean uses, meaningfully engages stakeholders and communities from the start, and uses best available science and data to ensure science-based, stakeholder and community-informed decision making. It requires a comprehensive understanding of the impacts on wildlife, the environment, and the communities that depend on marine resources. NOAA provides essential data and analyses to understand how offshore wind and its related impacts will interact with fisheries, protected species such as whales and sea turtles, and marine ecosystems. As offshore wind is set for dramatic growth in the Atlantic and Pacific Ocean, the demand for research and scientific analysis to ensure development and operations are conducted sustainably will increase as a result. NOAA currently lacks the resources and staff capacity needed to efficiently respond to the burgeoning regulatory review, threatening to stall the development of offshore wind or incentivize a cursory

decision-making environment. Immediate investments in NOAA will result in enhanced capacity to conduct ocean wildlife research and develop offshore wind in coexistence with ocean users like fishing and coastal communities. Therefore, we ask that you consider funding the following line items within NOAA to ensure that offshore wind is responsibly developed with the least possible impacts to our marine wildlife and resources:

- **Marine Mammals, Sea Turtles, and Other Species:** Increase funding for the Marine Mammals, Sea Turtles, and Other Species line item to at least \$130,000,000 to improve NOAA's ability to conduct Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) permitting consultations.
- **Fisheries Data Collections, Surveys, and Assessments:** Increase funding for the Fisheries Data Collections, Surveys, and Assessments line item to at least \$206,000,000 to support the National Marine Fisheries Service (NMFS) in updating its methodology and capacity for collecting fisheries data, allowing for better coexistence with offshore wind development.
- **Fisheries & Ecosystem Science Programs:** Increase funding for the Fisheries and Ecosystem Science Programs and Services line item to at least \$157,000,000 to help NMFS support regional science and operations in regards to offshore wind.
- **Fisheries Management:** Increase funding for the Fisheries Management Programs and Services line item to at least \$136,000,000 to help regional offices carry out offshore wind reviews.

#### Interior and Environment Subcommittee

BOEM and USFWS play critical roles in providing the necessary science and information required to advance responsible offshore wind development. BOEM's Office of Renewable Energy (OREP) serves as the lead offshore wind permitting agency, responsible, in coordination with other federal agencies, for approving the leasing and construction and operation of facilities, which includes thorough assessment, and management of impacts from offshore energy activities on our ocean, coasts, and coastal communities. Through BOEM's Environmental Studies Program (ESP), BOEM provides communications and outreach to better understand Tribal and Indigenous interests, facilitating consultations, community meetings, and more to incorporate these facets into decision-making. BOEM's ESP has also funded studies ranging from the impacts of offshore wind on benthic communities at Block Island Wind Farm in Rhode Island, to the impacts of underwater sound on reef fish in North Carolina, with many studies resulting in findings that can be applied regionally. OREP complements the ESP by providing further research into the environmental effects of offshore wind. USFWS scientists, working with States and stakeholders, identify key habitat for fish and wildlife, ensuring resources are protected and mitigation measures help reduce risks to potentially affected species. We ask that you support the following increases to BOEM and USFWS line items:

- **Office of Renewable Energy Programs:** Increase funding for BOEM's Office of Renewable Energy Programs to at least \$70,000,000 to advance offshore wind leasing, permitting, and research.
- **Environmental Studies Program:** Increase funding for BOEM's Environmental Studies Program to at least \$53,000,000 for offshore wind-related studies.
- **Ecological Services Planning and Consultation:** Increase funding for USFWS Ecological Services Planning and Consultation line item to at least \$110,000,000 to fund additional staff that can help Fish and Wildlife Service conduct offshore wind permitting consultations.

- **Division of Migratory Bird Management:** Increase funding for USFWS Migratory Bird Management line within Resource Management to at least \$52,000,000 to fund additional staff that can help USFWS conduct offshore wind permitting consultations and research.

### Energy & Water Subcommittee

All forms of energy production bring some measure of impact on the environment in which they operate. DOE's Wind Energy Technologies Office (WETO) provides research and development into technologies to minimize and mitigate wind energy's potential impacts on wildlife and the environment. The development of new technologies through WETO has the potential to help protect the wildlife and environments surrounding wind farms, while providing cost-effective technologies to wind energy companies to be better stewards of the environment. As offshore wind continues to be built in different environments and ecosystems, we must prioritize research and development for mitigation technologies unique to these ecosystems. We recommend the following increase to WETO to ensure mitigation technology keeps pace with development:

- **Wind Energy Technologies Office:** Increase funding for WETO to at least \$300,000,000 with an increased emphasis on the following: 1) wind-radar mitigation; 2) transmission and grid integration; 3) wildlife issues; 4) component innovation and advanced manufacturing; 5) forecasting (A2E Initiative, Wake Control Initiative); and 6) issues unique to offshore wind.

Offshore wind will play a crucial role in our country's transition to renewable energy. With current targets being set to increase offshore wind exponentially in the United States, as illustrated in the recent actions taken by the Biden Administration, we must ramp up our investments in the science to support responsible development of this burgeoning U.S. industry. As we embrace a clean energy future, development of offshore wind must advance in a responsible way, with the least possible impacts on our communities, wildlife and surrounding environment; funding research needs will provide us the opportunity to ensure this outcome.

Sincerely,

Conservation Law Foundation  
Defenders of Wildlife  
National Audubon Society  
National Wildlife Federation  
Natural Resources Defense Council  
Ocean Conservancy  
Oceana  
Sierra Club

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<sup>1</sup> Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Vineyard Wind 1 Offshore Wind Energy Project Supplement to the Draft Environmental Impact Statement, June 2020

<sup>2</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Brown, William Y" <william.brown@boem.gov>, "megan.carr@boem.gov" <megan.carr@boem.gov>, "jill.lewandowski@boem.gov" <jill.lewandowski@boem.gov>, "Knodel, Marissa S" <marissa.knodel@boem.gov>, "michael.celata@boem.gov" <michael.celata@boem.gov>, "james.kendall@boem.gov" <james.kendall@boem.gov>, "douglas.boren@boem.gov" <douglas.boren@boem.gov>

**Subject:** [EXTERNAL] Offshore drilling: Atlantic-Pacific-FL Gulf Coast business coalitions' letter to the President on debt ceiling negotiations

**Date:** Wed, 24 May 2023 17:54:58 +0000

**Attachments:** 05-23-2023\_Joint\_Business\_Coalition\_Letter\_to\_President\_Biden.pdf

**Inline-Images:** image001.png

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Hi Team BOEM,

For your information, please find attached a joint letter to the President, transmitted yesterday to the White House, from the Business Alliance for Protecting the Pacific Coast (BAPPC), the Business Alliance for Protecting the Atlantic Coast (BAPAC), and the Florida Gulf Coast Business Coalition (FGCBC)—who represent over 55,000 coastal business and entrepreneurs. Together, they call on the President to ensure that a deal to increase the nation's debt limit does not include any provisions to expand new offshore oil and gas drilling on the U.S. Outer Continental Shelf.

Thank you for your consideration.

Sincerely,  
Mike Messmer

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



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May 23, 2023

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, D.C. 20500

Dear Mr. President,

We represent over 55,000 coastal businesses and entrepreneurs that generate billions of dollars in annual economic activity throughout the country. Our members understand that offshore oil drilling anywhere presents significant economic risk everywhere, and we are calling on you to ensure that the debt ceiling legislation does not contain any provisions to expand new offshore oil and gas drilling on the U.S. Outer Continental Shelf.

Offshore drilling has a direct impact on the thousands of business owners and hundreds of thousands of jobs that power our coastal economy. Healthy coasts are the lifeblood of our economy and the backbone of countless small businesses that depend on ocean tourism for steady revenue. Our businesses rely on a clean ocean to facilitate sustainable economic activity in hotels, restaurants, recreation, real estate, fishing, and so much more. In fact, America's clean coastal economy supports around 3.3 million American jobs and \$250 billion in GDP.<sup>1</sup> Activities such as tourism, recreation, and fishing make our communities vibrant and prosperous, but they must be protected from toxic oil spills and increasingly dangerous climate disasters.

Year after year, the oil and gas industry tell us that they are committed to safety and preventing oil spill disasters, yet disasters continue to occur. The oil and gas industry has failed to protect us from their dangerous practices. Communities in the Gulf of Mexico are still struggling with the impacts of the BP *Deepwater Horizon* disaster, and Southern California shut down some of its busiest beaches and fisheries in 2021. Recently, there was an oil spill in the Texas Intracoastal waterway, releasing 1,260 gallons of crude oil<sup>2</sup>. Simply put, spills continue to threaten our waters, coastlines, and marine life. The threat to our communities is a risk our economies cannot afford, and it is time to end this practice and protect our coasts.

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<sup>1</sup> Oceana (Jan. 2021) Offshore Drilling Fuels the Climate Crisis and Threatens the Economy. Washington, D.C. Available: [https://usa.oceana.org/sites/default/files/2021/01/27/final\\_climate\\_economy\\_fact\\_sheet\\_m1\\_doi.pdf](https://usa.oceana.org/sites/default/files/2021/01/27/final_climate_economy_fact_sheet_m1_doi.pdf).

<sup>2</sup> USCG (May 2023) Unified Command responds to oil discharge on Gulf Intracoastal Waterway near Orange, Texas. Available: <https://www.news.uscg.mil/Press-Releases/Article/3380520/photos-available-unified-command-responds-to-oil-discharge-on-gulf-intracoastal/>.

The BP Deepwater Horizon disaster made it clear: Oil spills do not respect state boundaries. When the rig exploded off the coast of Louisiana, hundreds of miles away from Florida's coast, Floridians were told not to worry. But tar balls soon washed up on their shores, followed up by a flood of cancelled reservations and temporarily closed storefronts. The Deepwater Horizon oil spill cost the recreation industry more than \$500 million and more than 10 million user-days of beach, fishing, and boating activity.<sup>3</sup> Following the disaster, fisheries closed and demand for Gulf seafood plummeted, costing the seafood industry nearly \$1 billion. And the impacts hit housing markets across the region as a decline in prices between 4% and 8% lasted for at least five years.<sup>4</sup>

As rigs continue to expand further offshore into deeper waters, the dangers of drilling and the likelihood of another disaster increase.<sup>5</sup> Despite this, the oil and gas industry is still pushing to expand its footprint. This threatens businesses up and down all coasts. When they drill, they spill, and coastal economies will inevitably bear the burden of resulting beach closures, economic shutdowns, and job losses.

We commend the administration's commitment to addressing the climate crisis. The administration must now act on climate by protecting our coasts and closing the chapter on any new oil and gas leasing, especially in this essential legislation. By advancing clean, renewable energy, we can support American energy independence and create good-paying jobs without risking our climate.

Our businesses are facing the impacts of warming oceans, rising seas, and increasingly disastrous weather patterns head on. In 2021 alone, the U.S. experienced 20 separate billion-dollar weather and climate disasters, and in total natural disasters caused \$145 billion in damages last year.<sup>6</sup> Quite simply, we cannot afford to continue drilling. Permanently protecting federal waters from drilling will prevent over 19 billion tons of greenhouse gas emissions—the equivalent of taking every car in the nation off the road for 15 years. It would also prevent over \$720 billion in damages to people, property, and the environment, letting our businesses prosper long into the future.<sup>7</sup> Ending new offshore drilling will help our nation address the climate emergency while protecting coastal communities and millions of jobs.

The oil and gas industry has already stockpiled millions of acres of leases on public lands and waters. Ending all new leasing would not end offshore production on current leases, nor would it

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<sup>3</sup> NOAA Assessing the Impacts from Deepwater Horizon. National Oceanic and Atmospheric Administration | US Department of Commerce. Available: [https:// response.restoration.noaa.gov/about/media/assessing-impacts-deepwater-horizon.html](https://response.restoration.noaa.gov/about/media/assessing-impacts-deepwater-horizon.html).

<sup>4</sup> Cano-Urbina J, Clapp CM and Willardsen K (2019) The effects of the BP Deepwater Horizon oil spill on housing markets. *Journal of Housing Economics* 43: 131–156. doi: 10.1016/j.jhe.2018.09.004

<sup>5</sup> National Commission on the BP Deepwater Horizon and Oil Spill and Offshore Drilling (2011) *Deep Water: The Gulf oil disaster and the future of offshore drilling*. Report to the President. Washington, D.C.

<sup>6</sup> Smith, A. (Jan. 2022) 2021 U.S. billion-dollar weather and climate disasters in historical context. *Climate.gov*. Available: [https://www.climate.gov/news-features/blogs/beyond-data/2021-us-billion-dollar-weather-and-climate-disastershistorical#:~:text=Damages%20from%20the%202021%20disasters,Western%20wildfires%20\(%2410.9%20billion\)](https://www.climate.gov/news-features/blogs/beyond-data/2021-us-billion-dollar-weather-and-climate-disastershistorical#:~:text=Damages%20from%20the%202021%20disasters,Western%20wildfires%20(%2410.9%20billion)).

<sup>7</sup> Oceana (Jan. 2021) *Offshore Drilling Fuels the Climate Crisis and Threatens the Economy*. [https://usa.oceana.org/sites/default/files/2021/01/27/final\\_climate\\_economy\\_fact\\_sheet\\_m1\\_doi.pdf](https://usa.oceana.org/sites/default/files/2021/01/27/final_climate_economy_fact_sheet_m1_doi.pdf).

prevent future production on the over 8 million acres of unused leases that have already been approved.<sup>8</sup>

As you negotiate the legislation to increase the national debt limit, we urge you to uphold your campaign promise to end new offshore oil and gas leasing. Ending new leasing for offshore drilling will protect the millions of jobs that rely on a healthy ocean, and it is a vital step in tackling the climate crisis.

Sincerely,

Grant Bixby, Advisory Council, Business Alliance for Protecting the Pacific Coast

Tom Kies, President, Business Alliance for Protecting the Atlantic Coast

Robin Miller, Chair, Florida Gulf Coast Business Coalition

cc: The Honorable Charles E. Schumer, Majority Leader, United States Senate  
The Honorable Hakeem S. Jeffries, Minority Leader, United States House of Representatives

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<sup>8</sup> BOEM (March 2022) Combined Leasing Report. Available:  
<https://www.boem.gov/sites/default/files/documents/Lease%20stats%203-1-22.pdf>



**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** Automatic reply: [EXTERNAL] Offshore drilling: Atlantic-Pacific-FL Gulf Coast business coalitions' letter to the President on debt ceiling negotiations

**Date:** Wed, 24 May 2023 17:56:05 +0000

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Hello!

I am out of the office May 23-26 for a work meeting and will be slower to respond to e-mail. In case of an emergency, please call 202-538-2415.

Peace,

Marissa Knodel

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** Re: [EXTERNAL] Offshore drilling: Atlantic-Pacific-FL Gulf Coast business coalitions' letter to the President on debt ceiling negotiations

**Date:** Wed, 24 May 2023 18:53:10 +0000

**Inline-Images:** image001.png

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Thanks very much for the notification, Mike.

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Messmer, Michael <mmessmer@oceana.org>

**Sent:** Wednesday, May 24, 2023 10:54 AM

**To:** Cruickshank, Walter <Walter.Cruickshank@boem.gov>; Farmer, Isis U <Isis.Farmer@boem.gov>; Brown, William Y <William.Brown@boem.gov>; Carr, Megan E <megan.carr@boem.gov>; Lewandowski, Jill K <Jill.Lewandowski@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>; michael.celata@boem.gov <michael.celata@boem.gov>; Kendall, James J. <James.Kendall@boem.gov>; Boren, Douglas <Douglas.Boren@boem.gov>

**Subject:** [EXTERNAL] Offshore drilling: Atlantic-Pacific-FL Gulf Coast business coalitions' letter to the President on debt ceiling negotiations

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Hi Team BOEM,

For your information, please find attached a joint letter to the President, transmitted yesterday to the White House, from the Business Alliance for Protecting the Pacific Coast (BAPPC), the Business Alliance for Protecting the Atlantic Coast (BAPAC), and the Florida Gulf Coast Business Coalition (FGCBC)—who represent over 55,000 coastal business and entrepreneurs. Together, they call on the President to ensure that a deal to increase the nation's debt limit does not include any provisions to expand new offshore oil and gas drilling on the U.S. Outer Continental Shelf.

Thank you for your consideration.

Sincerely,  
Mike Messmer

**Michael Messmer** | Acting Campaign Director & Senior Federal Policy Manager



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**From:** "Bedos, Paola" <pbedos@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>

**Subject:** [EXTERNAL] On Behalf of Oceana CEO, Andy Sharpless - Please Join us on December 6

**Date:** Wed, 16 Nov 2022 23:15:36 +0000

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Walter,

Please join me, Oceana's International Board of Directors, Executive Committee, and staff for a festive reception on Tuesday evening, **December 6, 2022**, at our Global Headquarters. Together we will celebrate the holiday season as well as the many victories you have helped us achieve for the ocean. Please click [here](#) for the invitation or view it at the end of this message.

The reception is from 6:00 pm to 8:00 pm. Kindly RSVP by **Monday, November 28** to Paola Bedós at [pbedos@oceana.org](mailto:pbedos@oceana.org) or (202) 701-7772. I look forward to seeing you there!

For the oceans,  
Andy

**Andrew Sharpless** | Chief Executive Officer

A picture containing text,

1025 Connecticut Ave. NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1900 | **T** +1.202.833.3900

**E** [asharpless@oceana.org](mailto:asharpless@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)



Oceana Board Chair Sam Waterston and  
CEO Andy Sharpless invite you to a reception with  
Oceana's Board of Directors to

# Celebrate a Wave of Ocean Victories



**TUESDAY, DECEMBER 6, 2022  
6PM - 8PM**

**OCEANA HEADQUARTERS  
1025 CONNECTICUT AVE. NW, SUITE 200  
WASHINGTON, DC**

*RSVP to Paola Bedós at  
pbedos@oceana.org or (202) 701-7772  
by November 28, 2022*

## **Oceana International Board of Directors**

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Susan Rockefeller  
Simon Sidamon-Eristoff  
Dr. Rashid Sumaila  
Valarie Van Cleave  
Elizabeth Wahler  
Jean Weiss  
Antha Williams

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Politico Morning Energy

**Date:** Tue, 28 Jun 2022 12:23:24 +0000

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good morning,  
Just wanted to share this clip in morning energy:

**NO-LEASE SALE:** Democratic senators are asking the Biden administration to include no new lease sales in the Interior Department's much-anticipated five-year offshore development plan that's expected to be released this week. [In a letter](#) led by Sen. [Bob Menendez](#) (N.J.) along with other coastal Democrats including Sens. [Cory Booker](#) (N.J.), [Dianne Feinstein](#) (Calif.), [Ed Markey](#) (Mass.) [Jeff Merkley](#) (Ore.), [Patty Murray](#) (Wash.), [Jack Reed](#) (R.I.), [Elizabeth Warren](#) (Mass.), [Ron Wyden](#) (Ore.) and [Alex Padilla](#) (Calif.), the lawmakers request the administration "protect our coastal communities, economies, ecosystems, and climate by including no new leasing across all planning areas in any proposed or final five-year OCS oil and gas leasing program."

Adding to the existing offshore leases wouldn't affect current gas prices since it takes an average of five years to develop them, the letter says. "In addition to failing to alleviate the strain on current gas prices, new offshore oil and gas leasing will make it more difficult to meet our climate goals and worsen the climate crisis," it adds.

---

**From:** POLITICO Pro's Morning Energy <newsletter@email.politicopro.com>

**Sent:** Tuesday, June 28, 2022 3:49 AM

**To:** Hoskins, Diane <Dhoskins@oceana.org>



POLITICO Pro's Morning Energy newsletter logo

BY **MATTHEW CHOI**

Pre-entitled by Chevron

*With help from Ben Lefebvre, Kelsey Tamborrino, Catherine Morehouse and Alex Guillén*

**QUICK FIX**

**— FERC's latest proposals to ramp up clean energy on the grid** has transmission project owners at odds over who should foot the bill.

**WELCOME TO TUESDAY!** I'm your host, Matthew Choi. Sadly, no one knew that cornettos helped launch Alex Claremont-Diaz and Prince Henry on the enemies-to-lovers path in "Red, White & Royal Blue." For today's trivia: Who is the patron saint of Bulgaria? Send your tips and trivia answers to [mchoi@politico.com](mailto:mchoi@politico.com). Find me on Twitter [@matthewchoi2018](https://twitter.com/matthewchoi2018).

*[Check out the POLITICO Energy podcast](#) — all the energy and environmental politics and policy news you need to start your day, in just five minutes. Listen and subscribe for free at [politico.com/energy-podcast](https://politico.com/energy-podcast). On today's episode: Vietnam's leading climate activist is in jail. That's hurting U.S. climate talks.*



**Listen to today's POLITICO Energy Podcast!**

**TODAY'S AGENDA**

**ENERGY SPENDING:** The [House Appropriations Committee](#) marks up the energy and water development portions of the Fiscal Year 2023 spending bill. A subcommittee advanced the bill last week that would allocate \$56.3 billion for the Energy Department and Army Corps of Engineers. For a refresher on what's inside, [POLITICO's Kelsey Tamborrino has you covered](#).

A message from Chevron:

At Chevron, we're helping to power a brighter future. In California, Chevron is working with Iwatani to build 30 hydrogen fueling stations to fuel lower carbon travel. [Find out more.](#)

---

## DRIVING THE DAY

**WHO PAYS FOR TRANSMISSION?** FERC introduced two proposals this year designed to address the long queue of clean power projects waiting for grid access. But who should pay for the infrastructure upgrades remains a source of conflict, [POLITICO's Catherine Morehouse reports](#).

The proposals aim to relieve the long waits that many clean energy projects face before they can connect to the power grid, with the regulator directing transmission owners to make accommodating clean energy a central tenet going forward. The U.S. will need to triple its transmission capacity by 2050 to reach President Joe Biden's emissions targets, which will require a massive electrification across industries.

But under the current approach, project developers find they have to pay for system upgrades, and they want the costs to be shared by utilities and customers.

Sens. [John Hickenlooper](#) (D-Colo.) and [Angus King](#) (I-Maine) are also urging FERC to reassess how it assigns transmission upgrade costs. In [a letter sent Monday](#), the lawmakers argued the current system of forcing singular connecting projects to pay for expensive system-wide upgrades is impractical and leads to lengthy delays.

FERC floated a potential solution earlier this month that would divide costs more evenly among "clusters" of projects — rather than loading up the fees on each project alone. But the senators urged the commission to go even further, splitting costs between project developers and customers who see benefits from greater access to cheap energy.

## AROUND THE AGENCIES



**MORE JOBS:** Employment in the energy sector increased 4 percent last year over 2020, outpacing the 2.8 percent job growth in the overall economy, according to a U.S. Energy and Employment Report released today. More than 3 million of those jobs were in the clean energy sector, while jobs in the fossil fuel sector decreased overall. The report is good news for the Biden administration, which has long sold a clean energy transition as both an economic driver as well as a climate imperative.

Of course the 2021 data was collected before the Russian invasion of Ukraine, which helped turbo charge the rally in oil and gas prices. That surge in prices has led to employment growth in fossil fuels not accounted for in today's report. [Kelsey has more for Pros.](#)

On top of the jobs report, the administration will be announcing "a fleet of new and recent actions" today from across the private sector to boost domestic capacity to manufacture more than 250,000 new EV chargers per year, White House deputy national climate adviser Ali Zaidi told reporters.

**WHERE IN THE WORLD IS JENNIFER GRANHOLM?** The Energy secretary heads to Pittsburgh today for the reopening of a Bethlehem Steel factory that will produce equipment for solar trackers for large-scale solar power plants. The facility is the third fabrication line Nextracker has commissioned with a steel manufacturing partner this year to supply equipment for the devices that allow solar arrays to turn with the sun's movement, increasing their power output by a third.

"It's very concrete in terms of what we've been able to demonstrate with building capacity for manufacturing that uses raw materials that are made in the United States," Dan Shugar, CEO of Nextracker, told ME of the facility. The facility re-opening comes on the heels of the Biden administration's recent moves to freeze new solar tariffs and boost domestic manufacturing of solar equipment.

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A message from Chevron



[Advertisement Image](#)



## ON THE HILL

**NO-LEASE SALE:** Democratic senators are asking the Biden administration to include no new lease sales in the Interior Department's much-anticipated five-year offshore development plan that's expected to be released this week. [In a letter](#) led by Sen. [Bob Menendez](#) (N.J.) along with other coastal Democrats including Sens. [Cory Booker](#) (N.J.), [Dianne Feinstein](#) (Calif.), [Ed Markey](#) (Mass.) [Jeff Merkley](#) (Ore.), [Patty Murray](#) (Wash.), [Jack Reed](#) (R.I.), [Elizabeth Warren](#) (Mass.), [Ron Wyden](#) (Ore.) and [Alex Padilla](#) (Calif.), the lawmakers request the administration “protect our coastal communities, economies, ecosystems, and climate by including no new leasing across all planning areas in any proposed or final five-year OCS oil and gas leasing program.”

The letter goes further than previous calls to ban new lease sales along the Atlantic and Pacific coasts but still allow them in the Gulf of Mexico.

Interest in deep water offshore projects has remained relatively thin — the vast majority of the leases sold in the November 2021 auction for parcels in the Gulf of Mexico were for shallow water parcels, which analysts have said may reflect companies' interest in using the area for carbon sequestration. And with nine new oil and gas fields scheduled to start operating in the Gulf of Mexico this year, oil output from the region will stay steady through 2023, the U.S. Energy Information Administration said in a recent report.

But gasoline prices — the most visible energy policy indicator for most voters — remain high, and anything that smells of restricting production would probably unleash another round of Republican TV hits blaming inflation on Biden policies.

Adding to the existing offshore leases wouldn't affect current gas prices since it takes an average of five years to develop them, the letter says. “In addition to failing to alleviate the strain on current gas prices, new offshore oil and gas leasing will make it more difficult to meet our climate goals and worsen the climate crisis,” it adds.

## IN THE COURTS

**SCOTUS UPDATE:** Monday was a bust for the Supreme Court’s highly-anticipated climate ruling in *West Virginia v. EPA*, but the court will release more opinions on Wednesday morning. There are four to go, including the climate case, but the court hasn’t issued its traditional announcement that Wednesday will be the final opinion day. That means the climate ruling could come Wednesday or potentially Thursday or Friday.

#### MOVERS AND SHAKERS

— **Carianne Lee** is joining Pioneer Public Affairs as a policy adviser after serving as a senior legislative assistant for Rep. [Bonnie Watson Coleman](#) (D-N.J.).

#### THE GRID

— “[U.S. envoy headed to Qatar to revive Iran nuclear talks](#),” via POLITICO.

— “[Icons of Italian Automotive Style Struggle to Go Electric](#),” via The New York Times.

— “[Control freaks: G7 leaders push to cap oil prices](#),” via POLITICO.

— “[ExxonMobil chief predicts continuing surge in oil markets](#),” via The Financial Times.

— “[Biden raises duties on \\$2.3B worth of Russian goods](#),” via POLITICO.

— “[EU ministers agree on laws to save energy, promote renewables](#),” via Reuters.

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**New: Campaigns Premium Content.** Are you a Premium subscriber? Check out our updated [Premium Library](#) with everything from visuals around key campaign issues to analyses outlining how the midterms will impact each policy sector. Want to learn more about Premium? [Contact your account manager.](#)

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## ON THE CALENDAR

**9 a.m.** — The United States Energy Association [holds a discussion](#) on "An Opportunity to Facilitate Resilient Domestic Critical Material Supply Chains - Discussions on the Infrastructure, Investments and Jobs Act."

**10 a.m.** — The House Appropriations Committee [marks up](#) the FY2023 Energy and Water Development, and Related Agencies Appropriations bill.

**10 a.m.** — The Wilson Center's Middle East Program holds a [virtual discussion](#) on "Winning the Human Race Against Time," focusing on climate change in West Asia and North Africa.

**10 a.m.** — The Information Technology and Innovation Foundation holds a [virtual discussion](#) on "How 5G Can Spur Climate Tech Innovation."

**Noon** — The Business Council for Sustainable Energy [holds a discussion](#) on "Federal Sustainability Solutions."

**12:30 p.m.** — Inter-American Dialogue holds a [virtual discussion](#) on "Low-Carbon Hydrogen in Latin American Countries: Prospects and Pathways."

**1 p.m.** — The Carnegie Endowment for International Peace holds a [virtual discussion](#) on "The Politics of an Oil Crisis."

## THAT'S ALL FOR ME!

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A message from Chevron:

We believe the future of transportation is lower carbon, and hydrogen can help us get there. At Chevron, we're working with Iwatani to develop 30 hydrogen fueling stations in California by 2026, to serve current and future demands for less-carbon intensive energy. [Learn more about what comes next.](#)

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Arlington, VA, 22209, USA

**CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Sanders, Ramona N." <Ramona.Sanders@bsee.gov>

**Cc:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

**Date:** Thu, 13 Apr 2023 13:43:07 +0000

**Inline-Images:** image002.png; image003.gif; image004.png

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Thank you!

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

D 301.672.0894

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---

**From:** Sanders, Ramona N. <Ramona.Sanders@bsee.gov>

**Sent:** Thursday, April 13, 2023 9:41 AM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** Re: [EXTERNAL] Q RE: IRA methane royalty provision

Good Morning, Diane

I've reached out to contacts within BSEE that manage venting and flaring requirements and coordinate with ONNR. I hope to have responses to your questions soon.

Best Regards,

**Ramona Sanders** | Senior Environmental Stewardship Coordinator

Office of the Director

Bureau of Safety and Environmental Enforcement

[ramona.sanders@bsee.gov](mailto:ramona.sanders@bsee.gov) | 504-736-2504 Office

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Monday, April 10, 2023 2:30 PM

**To:** Sanders, Ramona N. <Ramona.Sanders@bsee.gov>

Cc: Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
Subject: [EXTERNAL] Q RE IRA methane royalty provision

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Hi Ramona –

How are you? Reaching out with several quick (hopefully!) questions about how BSEE is thinking about the new IRA methane royalty provision found at 30 USC § 1727.

Marissa Knodel suggested you as good contact for BSEE

Specifically, can you explain how BSEE is planning to implement § 1727's imposition of royalties on vented, flared, or lost gas?

For example, with respect to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b), is BSEE expecting to rely on existing regulations found at 30 CFR 250 1160 and 1161? If so, can you describe how those regulations will be applied? Alternatively, is BSEE intending to amend the existing regulations or enact new ones? Are there any other existing regulations relevant to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b)?

Similarly, how will BSEE measure the amount of gas vented, flared, or lost? Will BSEE rely on 30 CFR 250 1163, or does BSEE intend to amend those regulations or enact new ones? Are there alternative existing regulations relevant to measuring vented, flared, or lost gas?

Relatedly, although valuation of gas falls under the authority of ONRR, how is BSEE expecting valuation of vented, flared, or lost gas to take place under § 1727's new royalty provision? Are the regulations found within 30 CFR Part 1206, Subpart D (1206.140 - .165) applicable or will those (or other regulations) need to be amended or new ones implemented?

Thanks so much in advance and let me know if a phone call might be easier—

Diane

**Diane Hoskins** | Campaign Director



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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Perotti, Andres" <aperotti@oceana.org>

**Subject:** Automatic reply: [EXTERNAL] Q RE: IRA methane royalty provision

**Date:** Mon, 12 Jun 2023 18:57:56 +0000

---

Hello!

I am out of the office June 7-12 with limited e-mail access. In case of an emergency, please call 202-538-2415.

Peace,

Marissa Knodel



**From:** "Perotti, Andres" <aperotti@oceana.org>

**To:** "Sanders, Ramona N." <Ramona.Sanders@bsee.gov>, "Public Affairs, BSEE" <BSEEPublicAffairs@bsee.gov>

**Cc:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Nasir, Iqra" <Iqra.Nasir@bsee.gov>, "Lowell, Beth" <blowell@oceana.org>, "Marshall, Karla K" <Karla.Marshall@bsee.gov>

**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

**Date:** Tue, 20 Jun 2023 13:29:23 +0000

**Inline-Images:** image001.png; image003.gif; image005.png; image006.png

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Thank you for your response Ramona. All data would be helpful, although we have a bigger interest in the Gulf data.

Thanks again,

[Andres Perotti](#) | Staff Attorney



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---

**From:** Sanders, Ramona N. <Ramona.Sanders@bsee.gov>

**Sent:** Tuesday, June 20, 2023 9:20 AM

**To:** Perotti, Andres <aperotti@oceana.org>; Public Affairs, BSEE <BSEEPublicAffairs@bsee.gov>

**Cc:** Knodel, Marissa S <Marissa.Knodel@boem.gov>; Nasir, Iqra <Iqra.Nasir@bsee.gov>; Lowell, Beth <blowell@oceana.org>; Marshall, Karla K <Karla.Marshall@bsee.gov>

**Subject:** Re: [EXTERNAL] Q RE: IRA methane royalty provision

Good Morning, Andres

Unfortunately, BSEE does not provide ready-made production reports at the facility level (platform or interconnected group of platforms used to process production) on the online data center. The data can probably be determined by linking several data sets we have available online but the process is complex. I'm forwarding your questions to our public information team here to help coordinate the data and clarifications you've requested. With regards to the data, are you interested in all regions (Gulf, Pacific, and Alaska) or a specific region?

Best Regards,

**Ramona Sanders** | Senior Environmental Stewardship Coordinator

Office of the Director

Bureau of Safety and Environmental Enforcement

---

**From:** Perotti, Andres <[aperotti@oceana.org](mailto:aperotti@oceana.org)>  
**Sent:** Monday, June 12, 2023 1 57 PM  
**To:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>  
**Cc:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov) ; Nasir, Iqra [Iqra.Nasir@bsee.gov](mailto:Iqra.Nasir@bsee.gov) ; [blowell@oceana.org](mailto:blowell@oceana.org)  
<[blowell@oceana.org](mailto:blowell@oceana.org)>  
**Subject:** RE [EXTERNAL] Q RE IRA methane royalty provision

Hello Ramona,

Following your response to Diane, we started to look into some additional questions we had concerning measurement and reporting requirements for vented and flared methane. There were a few things we were not able to figure out from BSEE's regulations or publicly reported data. Would you be able to help with the questions below, or would you be able to point us in the direction of someone else who could help?

For metering requirements, we were trying to get a sense of how many OCS facilities have reached the 2,000 bopd threshold but ran into two issues (1) the production data on BSEE's website seems to only have lease wide data, and (2) the term "facility," although defined for other sections of the regulations, does not seem to have a definition for 30 CFR 250.1163. Would you be able to shed some light on how you define facility and is it possible to share data on how many total OCS facilities are active and how many have reached the 2000 bopd threshold? Also, is it possible to share production totals for all facilities?

Finally, on avoidably vs unavoidably lost gas, there does not seem to be anything in the regulations other than 30 CFR 250.1160(e), which says:

If you flare or vent gas without the required approval, or if the Regional Supervisor determines that you were negligent or could have avoided flaring or venting the gas, the hydrocarbons will be considered avoidably lost or wasted.

This definition seems to be a little circular with saying that avoidable means they could have avoided flaring or venting gas. Does BSEE have any guidance documents related to what is considered avoidably vs unavoidably lost?

Thank you for your help on this, and please let me know if there is anything that I can clarify.

**Andres Perotti** | Staff Attorney



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---

**From:** Sanders, Ramona N [Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)  
**Sent:** Tuesday, May 2, 2023 11:54 AM  
**To:** Hoskins, Diane [Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)

Cc: Knodel, Marissa S <Marissa.Knodel@boem.gov>; Nasir, Iqra <lqra.Nasir@bsee.gov>; Linda Elliott

(b) (6)

Subject: Re: [EXTERNAL] Q RE: IRA methane royalty provision

Good Morning, Diane

Yes, I do have BSEE's response to your questions (see below). I was also hoping to get you a contact from ONRR as well but I can follow up with that information when I receive it.

1. How is BSEE planning to implement § 1727's imposition of royalties on vented, flared, or lost gas?  
The terms of Section 1727 are consistent with BSEE's longstanding standards and practices under 30 CFR 250.1160(e). Avoidable loss of gas through venting or flaring is rare during outer Continental Shelf (OCS) operations, but if it occurs BSEE notifies the Office of Natural Resources Revenue (ONRR). ONRR is responsible for collection of federal royalties pursuant to its regulations in 30 CFR part 1202.
2. For example, with respect to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b), is BSEE expecting to rely on existing regulations found at 30 CFR 250.1160 and .1161? BSEE has extensive experience in determining whether gas releases constitute avoidable loss or waste under 30 CFR 250.1160(e). BSEE communicates those determinations to ONRR, and ONRR is responsible for applying them to the collection of royalties.
  - If so, can you describe how those regulations will be applied?  
BSEE will continue to properly and consistently enforce the OCS flaring and venting regulations, which can be found at 30 CFR 250.1160 through 250.1164.
  - Alternatively, is BSEE intending to amend the existing regulations or enact new ones?  
After evaluating the Inflation Reduction Act language, BSEE determined that regulatory changes are not necessary to align BSEE authority and practice with the relevant portions of that Act. Existing BSEE regulations are consistent with the elements of Section 1727 that implicate matters within BSEE's jurisdiction.
  - Are there any other existing regulations relevant to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b)?  
Please consult ONRR, which is the federal agency responsible for collection of OCS federal royalties. BSEE renders its relevant determinations pursuant to the regulations found at 30 CFR 250.1160 through 250.1164. ONRR is responsible for applying those determinations to the appropriate collection of royalties.
3. Similarly, how will BSEE measure the amount of gas vented, flared, or lost?
  - Will BSEE rely on 30 CFR 250.1163, or does BSEE intend to amend those regulations or enact new ones?  
BSEE requirements regarding the measurement, record-keeping, and reporting (to ONRR) of flared and vented gas on the OCS are found at 30 CFR 250.1163. BSEE flaring and venting regulations are believed to be among the most stringent in the world. At this time, BSEE does not believe that amendments to its regulations are necessary to support implementation of Section 1727. However, BSEE will continue to assess approaches to improve oversight of vented, flared, and lost gas under the OCS Lands Act.
  - Are there alternative existing regulations relevant to measuring vented, flared, or lost gas?  
No, not to operations within BSEE's jurisdiction.

- 4 Relatedly, although valuation of gas falls under the authority of ONRR, how is BSEE expecting valuation of vented, flared, or lost gas to take place under § 1727's new royalty provision?

Please consult ONRR regarding how they value such gas

- a Are the regulations found within 30 CFR Part 1206, Subpart D (1206 140 165) applicable or will those (or other regulations) need to be amended or new ones implemented?

ONRR is responsible for administering the regulations found at 30 CFR part 1206 These questions are best directed to ONRR

Best Regards,

**Ramona Sanders | Senior Environmental Stewardship Coordinator**

Office of the Director

Bureau of Safety and Environmental Enforcement

[ramona\\_sanders@bsee.gov](mailto:ramona_sanders@bsee.gov) | 504 7 6 2504 Office

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, May 2, 2023 10:33 AM  
**To:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>  
**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Linda Elliott <(b) (6)>  
**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

Hi Ramona,

Hope you're doing well.

Reaching out to introduce Linda Elliot, she's doing research pro bono for us on this topic and wanted to make sure she's in the loop on responses.

Would love to know if you have any updates.

Thanks in advance,

Diane

**Diane Hoskins | Campaign Director**



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Washington, DC, 20036

D 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>

**Sent:** Thursday, April 13, 2023 9 41 AM

**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re [EXTERNAL] Q RE IRA methane royalty provision

Good Morning, Diane

I've reached out to contacts within BSEE that manage venting and flaring requirements and coordinate with ONNR. I hope to have responses to your questions soon.

Best Regards,

**Ramona Sanders | Senior Environmental Stewardship Coordinator**

Office of the Director

Bureau of Safety and Environmental Enforcement

[ramona.sanders@bsee.gov](mailto:ramona.sanders@bsee.gov) | 504-736-2504 Office

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Monday, April 10, 2023 2:30 PM  
**To:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>  
**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Q RE: IRA methane royalty provision

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Hi Ramona –

How are you? Reaching out with several quick (hopefully!) questions about how BSEE is thinking about the new IRA methane royalty provision found at 30 USC § 1727.

Marissa Knodel suggested you as good contact for BSEE.

Specifically, can you explain how BSEE is planning to implement § 1727's imposition of royalties on vented, flared, or lost gas?

For example, with respect to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b), is BSEE expecting to rely on existing regulations found at 30 CFR 250.1160 and .1161? If so, can you describe how those regulations will be applied? Alternatively, is BSEE intending to amend the existing regulations or enact new ones? Are there any other existing regulations relevant to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b)?

Similarly, how will BSEE measure the amount of gas vented, flared, or lost? Will BSEE rely on 30 CFR 250.1163, or does BSEE intend to amend those regulations or enact new ones? Are there alternative existing regulations relevant to measuring vented, flared, or lost gas?

Relatedly, although valuation of gas falls under the authority of ONRR, how is BSEE expecting valuation of vented, flared, or lost gas to take place under § 1727's new royalty provision? Are the regulations found within 30 CFR Part 1206, Subpart D (1206.140 - .165) applicable or will those (or other regulations) need to be amended or new ones implemented?

Thanks so much in advance and let me know if a phone call might be easier—  
Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
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**CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

**From:** "Perotti, Andres" <aperotti@oceana.org>

**To:** "O'berry, Eugene M" <eugene.oberry@bsee.gov>

**Cc:** "Sanders, Ramona N." <Ramona.Sanders@bsee.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Nasir, Iqra" <Iqra.Nasir@bsee.gov>, "Lowell, Beth" <blowell@oceana.org>, "Kim, Seong H" <Seong.Kim@bsee.gov>, "Marshall, Karla K" <Karla.Marshall@bsee.gov>, "Day, Sandy E" <sandy.day@bsee.gov>

**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

**Date:** Mon, 17 Jul 2023 21:09:05 +0000

**Inline-Images:** image001.png; image002.png; image003.png; image004.png; image005.png; image006.png; image007.gif; image008.jpg; image009.gif; image010.png; image011.png

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Thank you! Is the complicated data call the production totals for all facilities?

Are the other pieces easier? For example, do you have a list of how many active facilities are required to meter their venting and flaring? And a list of the total active facilities?

We're trying to understand by BSEE chose the 2,000 bopd threshold for the metering requirement and can't figure it out. Is there any significance to that threshold for coverage of facilities or any other reason?.

And is there an easy answer to what you consider unavoidably versus avoidably lost. Would anything under the 50 mcf per day in [30 CFR 250.1160](#) be considered unavoidably lost? Does BSEE approve venting or flaring over that amount and still consider it unavoidably lost?

Thanks again!

Andres Perotti | Staff Attorney



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---

**From:** O'berry, Eugene M <eugene.oberry@bsee.gov>

**Sent:** Wednesday, July 12, 2023 1:19 PM

**To:** Perotti, Andres <aperotti@oceana.org>

**Cc:** Sanders, Ramona N. <Ramona.Sanders@bsee.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>; Nasir, Iqra <Iqra.Nasir@bsee.gov>; Lowell, Beth <blowell@oceana.org>; Kim, Seong H <Seong.Kim@bsee.gov>; Marshall, Karla K <Karla.Marshall@bsee.gov>; Day, Sandy E <sandy.day@bsee.gov>

**Subject:** Re: [EXTERNAL] Q RE: IRA methane royalty provision

Andres, I'll follow up and see about status. As Ramona mentioned, will likely be a complicated data call.

Thanks.

Mike

v/r,

Eugene "Mike" O'Berry  
Public Affairs Officer  
BSEE Gulf of Mexico Region  
(504) 731-7847  
(504) 432 5508  
[eugene.oberry@bsee.gov](mailto:eugene.oberry@bsee.gov)



**Bureau of  
Safety and  
Environmental  
Enforcement**

---

**From:** Perotti, Andres <[aperotti@oceana.org](mailto:aperotti@oceana.org)>  
**Sent:** Wednesday, July 12, 2023 10:30 AM  
**To:** O'berry, Eugene M <[eugene.oberry@bsee.gov](mailto:eugene.oberry@bsee.gov)>  
**Cc:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>; Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Nasir, Iqra <[Iqra.Nasir@bsee.gov](mailto:Iqra.Nasir@bsee.gov)>; [blowell@oceana.org](mailto:blowell@oceana.org) <[blowell@oceana.org](mailto:blowell@oceana.org)>; Kim, Seong H <[Seong.Kim@bsee.gov](mailto:Seong.Kim@bsee.gov)>; Marshall, Karla K <[Karla.Marshall@bsee.gov](mailto:Karla.Marshall@bsee.gov)>; Day, Sandy E <[sandy.day@bsee.gov](mailto:sandy.day@bsee.gov)>  
**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

Hi Mike,

Thanks for helping out with our questions. I was just wondering if you had any updates.

Please let me know if I can help clarify things to make answering the questions easier.

Thanks again!

**Andres Perotti** | Staff Attorney



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---

**From:** O'berry, Eugene M <[eugene.oberry@bsee.gov](mailto:eugene.oberry@bsee.gov)>  
**Sent:** Tuesday, June 20, 2023 10:54 AM  
**To:** Perotti, Andres <[aperotti@oceana.org](mailto:aperotti@oceana.org)>



**Cc:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>; Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Nasir, Iqra <[Iqra.Nasir@bsee.gov](mailto:Iqra.Nasir@bsee.gov)>; Lowell, Beth <[blowell@oceana.org](mailto:blowell@oceana.org)>; Kim, Seong H <[Seong.Kim@bsee.gov](mailto:Seong.Kim@bsee.gov)>; Marshall, Karla K <[Karla.Marshall@bsee.gov](mailto:Karla.Marshall@bsee.gov)>; Day, Sandy E <[sandy.day@bsee.gov](mailto:sandy.day@bsee.gov)>

**Subject:** Fw [EXTERNAL] Q RE IRA methane royalty provision

Good morning, Andres, we are researching your query and will get back to you as soon as possible.

Thank you.

v/r,

Eugene "Mike" O'Berry  
Public Affairs Officer  
BSEE Gulf of Mexico Region  
(504) 731 7847  
(504) 432-5508  
[eugene.oberry@bsee.gov](mailto:eugene.oberry@bsee.gov)



**Bureau of  
Safety and  
Environmental  
Enforcement**

---

**From:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>

**Sent:** Tuesday, June 20, 2023 8 20 AM

**To:** Perotti, Andres <[aperotti@oceana.org](mailto:aperotti@oceana.org)>; Public Affairs, BSEE <[BSEEPublicAffairs@bsee.gov](mailto:BSEEPublicAffairs@bsee.gov)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Nasir, Iqra <[Iqra.Nasir@bsee.gov](mailto:Iqra.Nasir@bsee.gov)>; <[blowell@oceana.org](mailto:blowell@oceana.org)>; Marshall, Karla K <[Karla.Marshall@bsee.gov](mailto:Karla.Marshall@bsee.gov)>

**Subject:** Re [EXTERNAL] Q RE IRA methane royalty provision

Good Morning, Andres

Unfortunately, BSEE does not provide ready-made production reports at the facility level (platform or interconnected group of platforms used to process production) on the online data center. The data can probably be determined by linking several data sets we have available online but the process is complex. I'm forwarding your questions to our public information team here to help coordinate the data and clarifications you've requested. With regards to the data, are you interested in all regions (Gulf, Pacific, and Alaska) or a specific region?

Best Regards,

Ramona Sanders | Senior Environmental Stewardship Coordinator

Office of the Director

Bureau of Safety and Environmental Enforcement

[ramona.sanders@bsee.gov](mailto:ramona.sanders@bsee.gov) | 504-736-2504 Office

---

**From:** Perotti, Andres <[aperotti@oceana.org](mailto:aperotti@oceana.org)>  
**Sent:** Monday, June 12, 2023 1:57 PM  
**To:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>  
**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Nasir, Iqra <[Iqra.Nasir@bsee.gov](mailto:Iqra.Nasir@bsee.gov)>; [blowell@oceana.org](mailto:blowell@oceana.org) <[blowell@oceana.org](mailto:blowell@oceana.org)>  
**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

Hello Ramona,

Following your response to Diane, we started to look into some additional questions we had concerning measurement and reporting requirements for vented and flared methane. There were a few things we were not able to figure out from BSEE's regulations or publicly reported data. Would you be able to help with the questions below, or would you be able to point us in the direction of someone else who could help?

For metering requirements, we were trying to get a sense of how many OCS facilities have reached the 2,000 bopd threshold but ran into two issues: (1) the production data on BSEE's website seems to only have lease-wide data, and (2) the term "facility," although defined for other sections of the regulations, does not seem to have a definition for 30 CFR 250.1163. Would you be able to shed some light on how you define facility and is it possible to share data on how many total OCS facilities are active and how many have reached the 2000 bopd threshold? Also, is it possible to share production totals for all facilities?

Finally, on avoidably vs. unavoidably lost gas, there does not seem to be anything in the regulations other than 30 CFR 250.1160(e), which says:

If you flare or vent gas without the required approval, or if the Regional Supervisor determines that you were negligent or could have avoided flaring or venting the gas, the hydrocarbons will be considered avoidably lost or wasted.

This definition seems to be a little circular with saying that avoidable means they could have avoided flaring or venting gas. Does BSEE have any guidance documents related to what is considered avoidably vs. unavoidably lost?

Thank you for your help on this, and please let me know if there is anything that I can clarify.

[Andres Perotti](#) | Staff Attorney



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---

**From:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>

**Sent:** Tuesday, May 2, 2023 11:54 AM

**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Nasir, Iqra <[Iqra.Nasir@bsee.gov](mailto:Iqra.Nasir@bsee.gov)>; Linda Elliott

<(b) (6)>

**Subject:** Re: [EXTERNAL] Q RE: IRA methane royalty provision

Good Morning, Diane

Yes, I do have BSEE's response to your questions ([see below](#)). I was also hoping to get you a contact from ONRR as well but I can follow up with that information when I receive it.

1. How is BSEE planning to implement § 1727's imposition of royalties on vented, flared, or lost gas?  
The terms of Section 1727 are consistent with BSEE's longstanding standards and practices under 30 CFR 250.1160(e). Avoidable loss of gas through venting or flaring is rare during outer Continental Shelf (OCS) operations, but if it occurs BSEE notifies the Office of Natural Resources Revenue (ONRR). ONRR is responsible for collection of federal royalties pursuant to its regulations in 30 CFR part 1202.
2. For example, with respect to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b), is BSEE expecting to rely on existing regulations found at 30 CFR 250.1160 and .1161?  
BSEE has extensive experience in determining whether gas releases constitute avoidable loss or waste under 30 CFR 250.1160(e). BSEE communicates those determinations to ONRR, and ONRR is responsible for applying them to the collection of royalties.
  - If so, can you describe how those regulations will be applied?  
BSEE will continue to properly and consistently enforce the OCS flaring and venting regulations, which can be found at 30 CFR 250.1160 through 250.1164.
  - Alternatively, is BSEE intending to amend the existing regulations or enact new ones?  
After evaluating the Inflation Reduction Act language, BSEE determined that regulatory changes are not necessary to align BSEE authority and practice with the relevant portions of that Act. Existing BSEE regulations are consistent with the elements of Section 1727 that implicate matters within BSEE's jurisdiction.
  - Are there any other existing regulations relevant to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b)?  
Please consult ONRR, which is the federal agency responsible for collection of OCS federal royalties. BSEE renders its relevant determinations pursuant to the regulations found at 30 CFR 250.1160 through 250.1164. ONRR is responsible for applying those determinations to the appropriate collection of royalties.
3. Similarly, how will BSEE measure the amount of gas vented, flared, or lost?
  - Will BSEE rely on 30 CFR 250.1163, or does BSEE intend to amend those regulations or enact new ones?  
BSEE requirements regarding the measurement, record-keeping, and reporting (to ONRR) of flared and vented gas on the OCS are found at 30 CFR 250.1163. BSEE flaring and venting regulations are believed to be among the most stringent in the world. At this time, BSEE does not believe that amendments to its regulations are necessary to support implementation of

Section 1727. However, BSEE will continue to assess approaches to improve oversight of vented, flared, and lost gas under the OCS Lands Act.

- o Are there alternative existing regulations relevant to measuring vented, flared, or lost gas?  
No, not to operations within BSEE's jurisdiction.

4. Relatedly, although valuation of gas falls under the authority of ONRR, how is BSEE expecting valuation of vented, flared, or lost gas to take place under § 1727's new royalty provision?

Please consult ONRR regarding how they value such gas.

- a. Are the regulations found within 30 CFR Part 1206, Subpart D (1206.140 - .165) applicable or will those (or other regulations) need to be amended or new ones implemented?

ONRR is responsible for administering the regulations found at 30 CFR part 1206. These questions are best directed to ONRR.

Best Regards,

**Ramona Sanders | Senior Environmental Stewardship Coordinator**

Office of the Director

Bureau of Safety and Environmental Enforcement

[ramona.sanders@bsee.gov](mailto:ramona.sanders@bsee.gov) | 504-736-2504 Office

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Sent:** Tuesday, May 2, 2023 10:33 AM

**To:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Linda Elliott <(b) (6)>

**Subject:** RE: [EXTERNAL] Q RE: IRA methane royalty provision

Hi Ramona,

Hope you're doing well.

Reaching out to introduce Linda Elliot, she's doing research pro bono for us on this topic and wanted to make sure she's in the loop on responses.

Would love to know if you have any updates.

Thanks in advance,

Diane

**Diane Hoskins | Campaign Director**



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---

**From:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>  
**Sent:** Thursday, April 13, 2023 9:41 AM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Q RE: IRA methane royalty provision

Good Morning, Diane

I've reached out to contacts within BSEE that manage venting and flaring requirements and coordinate with ONNR. I hope to have responses to your questions soon.

Best Regards,

**Ramona Sanders | Senior Environmental Stewardship Coordinator**

Office of the Director

Bureau of Safety and Environmental Enforcement

[ramona.sanders@bsee.gov](mailto:ramona.sanders@bsee.gov) | 504-736-2504 Office

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Monday, April 10, 2023 2:30 PM  
**To:** Sanders, Ramona N. <[Ramona.Sanders@bsee.gov](mailto:Ramona.Sanders@bsee.gov)>  
**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Q RE: IRA methane royalty provision

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Hi Ramona –

How are you? Reaching out with several quick (hopefully!) questions about how BSEE is thinking about the new IRA methane royalty provision found at 30 USC § 1727.

Marissa Knodel suggested you as good contact for BSEE.

Specifically, can you explain how BSEE is planning to implement § 1727's imposition of royalties on vented, flared, or lost gas?

For example, with respect to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b), is BSEE expecting to rely on existing regulations found at 30 CFR 250.1160 and .1161? If so, can you describe how those regulations will be applied? Alternatively, is BSEE intending to amend the existing regulations or enact new

ones? Are there any other existing regulations relevant to determining when vented, flared, or lost gas will be exempt from royalties under § 1727(b)?

Similarly, how will BSEE measure the amount of gas vented, flared, or lost? Will BSEE rely on 30 CFR 250.1163, or does BSEE intend to amend those regulations or enact new ones? Are there alternative existing regulations relevant to measuring vented, flared, or lost gas?

Relatedly, although valuation of gas falls under the authority of ONRR, how is BSEE expecting valuation of vented, flared, or lost gas to take place under § 1727's new royalty provision? Are the regulations found within 30 CFR Part 1206, Subpart D (1206.140 - .165) applicable or will those (or other regulations) need to be amended or new ones implemented?

Thanks so much in advance and let me know if a phone call might be easier—

Diane

**Diane Hoskins** | Campaign Director



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**From:** Kendall Dix <kdix@taproot.earth>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] Reconnecting in 2023  
**Date:** Thu, 19 Jan 2023 10:05:05 -0500

---

Hi, Marissa. Here's the zoom link for our meeting right now:

(b) (5)

No problem if we need to reschedule I know you have a lot going on and just got a new boss )

On Mon, Jan 9, 2023 at 3 59 PM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote  
Sounds great, thank you!

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Monday, January 9, 2023 3:55 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** Re: [EXTERNAL] Reconnecting in 2023

Yes, either time works for me, but I'll go ahead and send a calendar invite for 10 00 Just let me know if that doesn't work for you and feel free to invite anyone else from your team if you want. I think I'll bring in our Louisiana policy manager

On Mon, Jan 9, 2023 at 10 16 AM Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)> wrote  
Hey Kendall,

Thanks for reaching out, I'd be happy to connect. Any chance you have time between 10:00 a.m. - noon EST next Thursday, January, 19?

Peace,

Marissa Knodel  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Kendall Dix <kdix@taproot.earth>  
**Sent:** Friday, January 6, 2023 10:32 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] Reconnecting in 2023

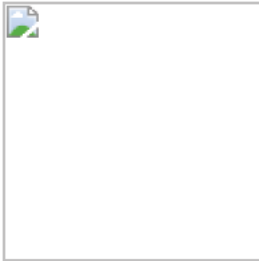
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Hi, Marissa. Happy new year, and I hope you got some rest over the holidays.

I'm very excited about the coming year, especially the Gulf wind lease sales. Any chance you'd like to check in sometime the next couple of weeks and talk about both BOEM and Taproot priorities for 2023?

Thanks,  
Kendall

--



**Kendall Dix**

National Policy Director  
Taproot Earth  
he/him

---



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- [kdix@taproot.earth](mailto:kdix@taproot.earth)
- [taproot.earth](http://taproot.earth)



**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Sharing House thank you letter to the President

**Date:** Wed, 14 Apr 2021 17:22:34 +0000

**Importance:** High

**Attachments:** OCS\_TY\_Letter.pdf

**Inline-Images:** image002.png

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Hi Marissa,

Hope all is well. I'm simply writing to share the letter that 53 House members sent to the President thanking him for pausing offshore oil and gas leasing, and calling for permanent protections for our coasts. I'm sure you and your colleagues have already seen it, but I wanted to send it anyway.

Many thanks. Stay well and be well.

Sincerely,  
Mike

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
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**Congress of the United States**  
**Washington, DC 20515**

April 8, 2021

The Honorable Joseph R. Biden  
The President of the United States  
The White House  
1600 Pennsylvania Avenue, NW  
Washington, D.C. 20006

Dear Mr. President:

Thank you for your January 27, 2021 issuance of Executive Order 14008. Pausing new leasing for offshore oil and gas drilling on the U.S. Outer Continental Shelf (OCS) is an important first step toward preventing billions of dollars in damage from climate change and oil spill disasters, one that can lead us on a path to a clean energy economy. Implementing federal moratoria on offshore oil and gas leasing and pre-leasing activities has received support from both sides of the aisle—including Republican and Democratic administrations.

As you know, our coastal communities depend upon healthy ocean ecosystems. Accordingly, protection of the roughly 3.3 million American jobs and \$250 billion in GDP through activities such as fishing, recreation, and tourism is vital. Dirty and dangerous offshore drilling, and its increased emissions, are fueling the climate crisis and threaten already vulnerable frontline communities and wildlife.

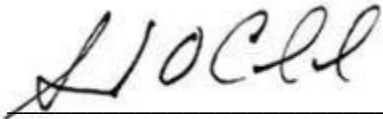
We welcome your Administration's willingness to listen and take action. Offshore drilling protections are supported by more than 390 coastal municipalities; alliances representing over 56,000 businesses and 500,000 fishing families; the Pacific, New England, South Atlantic and Mid-Atlantic fishery management councils, as well as several commercial and recreational fishing interests; and 2,300 officials of both parties at all levels of government, including every East and West Coast governor.

Our climate is in crisis, with sea levels rising and extreme weather accelerating. Protecting all unleased areas of the OCS is critical to avoiding even worse impacts from climate change. Permanently protecting these regions would prevent over 19 billion tons of greenhouse gas emissions and more than \$720 billion in damage to people, property, and the environment. Simply put, we cannot afford more drilling and unchecked climate pollution.

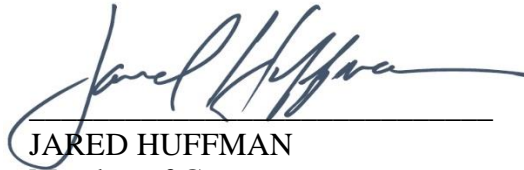
By taking this step and investing in clean energy, we can advance ambitious and durable climate action that protects coastal economies, creates jobs, and benefits all Americans. Again, we thank you for this action, and we look forward to working with you to secure this future.

Sincerely,

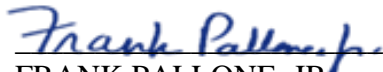
Congress of the United States  
Washington, DC 20515



SALUD CARBAJAL  
Member of Congress



JARED HUFFMAN  
Member of Congress



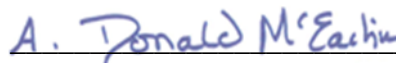
FRANK PALLONE, JR.  
Member of Congress



ALAN S. LOWENTHAL  
Member of Congress



DEBBIE WASSERMAN SCHULTZ  
Member of Congress



A. DONALD MCEACHIN  
Member of Congress

/s/

GRACE F. NAPOLITANO  
Member of Congress

/s/

FREDERICA S. WILSON  
Member of Congress

/s/

JERRY MCNERNEY  
Member of Congress

/s/

MARK DESAULNIER  
Member of Congress

/s/

MIKE LEVIN  
Member of Congress

/s/

ALCEE L. HASTINGS  
Member of Congress

/s/

JULIA BROWNLEY  
Member of Congress

/s/

EARL BLUMENAUER  
Member of Congress

**Congress of the United States**  
**Washington, DC 20515**

/s/  
SUZANNE BONAMICI  
Member of Congress

/s/  
MARK TAKANO  
Member of Congress

/s/  
NANETTE DIAZ BARRAGÁN  
Member of Congress

/s/  
NYDIA M. VELÁZQUEZ  
Member of Congress

/s/  
DORIS MATSUI  
Member of Congress

/s/  
JIMMY PANETTA  
Member of Congress

/s/  
DEBORAH K. ROSS  
Member of Congress

/s/  
CHARLIE CRIST  
Member of Congress

/s/  
JERROLD NADLER  
Member of Congress

/s/  
RITCHIE TORRES  
Member of Congress

/s/  
PETER WELCH  
Member of Congress

/s/  
ALBIO SIRES  
Member of Congress

/s/  
JUAN VARGAS  
Member of Congress

/s/  
JAN SCHAKOWSKY  
Member of Congress

/s/  
JESÚS G. "CHUY" GARCÍA  
Member of Congress

/s/  
BETTY MCCOLLUM  
Member of Congress

/s/  
TONY CÁRDENAS  
Member of Congress

/s/  
ALMA S. ADAMS, PH.D.  
Member of Congress

**Congress of the United States**  
**Washington, DC 20515**

/s/

PAUL D. TONKO  
Member of Congress

/s/

DARREN SOTO  
Member of Congress

/s/

STEVE COHEN  
Member of Congress

/s/

BARBARA LEE  
Member of Congress

/s/

DAVID TRONE  
Member of Congress

/s/

DAVID N. CICILLINE  
Member of Congress

/s/

GERALD E. CONNOLLY  
Member of Congress

/s/

HENRY C. "HANK" JOHNSON, JR.  
Member of Congress

/s/

AL LAWSON  
Member of Congress

/s/

JAMIE RASKIN  
Member of Congress

/s/

BONNIE WATSON COLEMAN  
Member of Congress

/s/

YVETTE D. CLARKE  
Member of Congress

/s/

JAMES P. MCGOVERN  
Member of Congress

/s/

CHELLIE PINGREE  
Member of Congress

/s/

TED DEUTCH  
Member of Congress

/s/

KATHY CASTOR  
Member of Congress

/s/

ROBERT C. "BOBBY" SCOTT  
Member of Congress

/s/

DEBBIE DINGELL  
Member of Congress

**Congress of the United States**  
**Washington, DC 20515**

/s/  
RAÚL M. GRIJALVA  
Member of Congress

/s/  
WILLIAM KEATING  
Member of Congress

/s/  
DONALD S. BEYER JR.  
Member of Congress

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** Re: [EXTERNAL] Sharing House thank you letter to the President

**Date:** Wed, 14 Apr 2021 17:55:06 +0000

**Inline-Images:** image002.png

---

Thanks, Mike. I did indeed see this letter, but appreciate you keeping me in the loop.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Messmer, Michael <mmessmer@oceana.org>

**Sent:** Wednesday, April 14, 2021 1:22 PM

**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Sharing House thank you letter to the President

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Marissa,

Hope all is well. I'm simply writing to share the letter that 53 House members sent to the President thanking him for pausing offshore oil and gas leasing, and calling for permanent protections for our coasts. I'm sure you and your colleagues have already seen it, but I wanted to send it anyway.

Many thanks. Stay well and be well.

Sincerely,  
Mike

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)

**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "Cook, Karla D." <Karla.Cook@boem.gov>

**Cc:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>, "connie.gillette@boem.gov" <connie.gillette@boem.gov>, "blossom.robinson@boem.gov" <blossom.robinson@boem.gov>

**Subject:** [EXTERNAL] State NGO letters on offshore drilling and budget reconciliation

**Date:** Fri, 10 Sep 2021 19:53:35 +0000

**Attachments:** Sep.\_2021\_WA\_Budget\_Reconciliation\_State\_NGO\_Letter.pdf;  
Sep.\_2021\_NY\_Budget\_Reconciliation\_State\_NGO\_Letter.pdf;  
Sep.\_2021\_NC\_Budget\_Reconciliation\_State\_NGO\_Letter.pdf;  
Sep.\_2021\_MA\_Budget\_Reconciliation\_State\_NGO\_Letter.pdf;  
Sep.\_2021\_FL\_Budget\_Reconciliation\_State\_NGO\_Letter.pdf;  
Sep.\_2021\_CA\_Budget\_Reconciliation\_State\_NGO\_Letter\_(2).pdf

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Director Lefton:

I am writing to submit the attached letters, signed by organizations in California, Florida, Massachusetts, New York, North Carolina, and Washington, urging the President and the members of their respective congressional delegations to ensure budget reconciliation ends new federal leasing for offshore oil and gas drilling. The economic and climate benefits of such action are clear, and support for such action is widespread and bipartisan.

We stand ready to work with you to advance these goals. If you have any questions, please do not hesitate to let me know.

Thank you for your consideration. Have a good weekend.

Sincerely,  
Mike Messmer

**Michael Messmer** | Federal Policy Manager



1025 Connecticut Avenue NW, Suite 200  
Washington, DC 20036 USA

**D** +1.202.467.1957 | **M** +1.202.286.0667

**E** [mmessmer@oceana.org](mailto:mmessmer@oceana.org) | **W** [www.oceana.org](http://www.oceana.org)



September 10, 2021

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Congressional Delegation of Washington

Dear Mr. President and Members of the Washington Congressional Delegation,

Protecting Washington from dirty and dangerous offshore drilling is a critical step toward addressing the climate crisis and preserving our special coastline. On behalf of our thousands of members and supporters, we urge you to ensure that budget reconciliation ends new offshore oil drilling. Protecting our coasts from expanded offshore drilling will preserve the health of our oceans, coastal environment, and economy, as well as support thousands of jobs in industries like tourism, fishing, boating, real estate, and more that rely on a clean, oil-free coast.

On the Pacific coast alone, 830,000 jobs and \$70 billion in gross domestic product (GDP) rely on healthy ocean ecosystems. We know from experience that where we drill, we spill -- businesses could lose millions of dollars from toxic oil poisoning marine wildlife, closing beaches, and shutting down lucrative fishing areas. A clean marine environment with properly managed fisheries supports jobs and economic activity for generations to come.

An analysis also found that permanent offshore drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions, which is equivalent to taking every car in the nation off the road for 15 years. It would also prevent more than \$720 billion in damages associated with climate change to people, property and the environment. For comparison, this is like losing the entire economy of a major city, like Washington, D.C., Boston or Atlanta, for an entire year.

Offshore drilling for fossil fuels generates greenhouse gas pollutants like carbon dioxide and methane at every step along the way. Protecting our oceans and coasts from new drilling is our best chance to prevent these emissions from ever entering the atmosphere and wreaking havoc on our lives and livelihoods.



1025 Connecticut Ave., NW Suite 200  
Washington, DC 20036

+1.202.833.3900  
[OCEANA.ORG](http://OCEANA.ORG)

Support for permanently protecting our coast from offshore drilling is bipartisan and widely popular. More than 390 coastal municipalities have formally opposed drilling off their coast, including the cities of Ocean Shores, Long Beach, Westport, South Bend, Ilwaco, Raymond, and Pacific County. Nearly every West and East coast governor and tens of thousands of businesses oppose expanded offshore drilling as well.

Now is the time to act and permanently protect our climate, ocean, and coastal economies from dirty and dangerous offshore drilling. You have a narrow opportunity to enact these protections during budget reconciliation. We're counting on your leadership to protect our coastal communities and take strong, swift action on climate change.

Sincerely,

Oceana  
350 Bellingham  
350 Eastside  
350 Everett  
350 Yakima  
350 Wenatchee  
Citizens for a Clean Harbor  
Friends of the San Juans  
Great Old Broads for Wilderness  
Kitsap Environmental Coalition  
Latino Community Fund of WA  
Ocean Conservation Research  
Olympic Climate Action  
Puget Soundkeeper  
Save Our Wild Salmon Coalition  
Surfrider Foundation  
Whale Scout  
Wild Salmon Center

September 10, 2021

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Congressional Delegation of New York

Dear Mr. President and Members of the New York Congressional Delegation,

Protecting New York from dirty and dangerous offshore drilling is a critical step toward addressing the climate crisis and preserving our special coastline. On behalf of our thousands of members and supporters, we urge you to ensure that budget reconciliation ends new offshore oil drilling. Protecting our coasts from expanded offshore drilling will preserve the health of our oceans, coastal environment, and economy, as well as support thousands of jobs in industries like tourism, fishing, boating, real estate, and more that rely on a clean, oil-free coast.

On the Atlantic coast alone, 1.6 million jobs and \$127 billion in gross domestic product (GDP) rely on healthy ocean ecosystems. We know from experience that where we drill, we spill -- the 2010 BP Deepwater Horizon oil disaster is one of the most well-known examples. Drilling anywhere off the East coast would devastate our communities and livelihoods. Businesses could lose millions of dollars from toxic oil poisoning marine wildlife, closing beaches, and shutting down lucrative fishing areas. Alternatively, a clean, protected marine environment with properly managed fisheries supports jobs and economic activity for generations to come.

A recent analysis also found that permanent offshore drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions, which is equivalent to taking every car in the nation off the road for 15 years. It would also prevent more than \$720 billion in damages associated with climate change to people, property and the environment. For comparison, this is like losing the entire economy of a major city, like Washington, D.C., Boston or Atlanta, for an entire year.

Offshore drilling for fossil fuels generates greenhouse gas pollutants like carbon dioxide and methane at every step along the way. Protecting our oceans and coasts from new drilling is our best chance to prevent these emissions from ever entering the atmosphere and contributing to climate change and its already devastating effects on our lives and livelihoods.

Support for permanently protecting our coast from offshore drilling is bipartisan and widely popular. More than 390 coastal municipalities have formally opposed drilling off their coast, including Brookhaven, East Hampton, Ocean Beach, Patchogue, Riverhead, Saltaire, Shelter Island, Southampton, Southold, and Fire Island Pines. Nearly every East and West coast governor and tens of thousands of businesses oppose expanded offshore drilling as well.

Now is the time to act and permanently protect our climate, ocean, and coastal economies from dirty and dangerous offshore drilling. You have a narrow opportunity to enact these protections during budget reconciliation. We're counting on your leadership to protect our coastal communities and take strong action on climate change.

Sincerely,

Oceana  
All Our Energy  
Alliance for a Green Economy  
Audubon New York  
Citizens Campaign for the Environment  
Coalition to Save Hempstead Harbor  
Coastal Research & Education Society of Long Island, Inc.  
Food & Water Watch  
Healthy Ocean Coalition  
Inland Ocean Coalition North Texas  
Long Island Network Divers Club  
Long Island Progressive Coalition  
Mothers Out Front New York  
Nassau Hiking & Outdoor Club  
New York Public Interest Research Group  
New York Youth Climate Leaders



1025 Connecticut Ave., NW Suite 200  
Washington, DC 20036

+1.202.833.3900  
[OCEANA.ORG](http://OCEANA.ORG)

New Yorkers for Clean Power  
North Shore Audubon Society  
Peconic Baykeeper  
ReWild Long Island  
Sane Energy Project  
Save The Great South Bay  
Science Museum of Long Island  
Seatuck Environmental Association  
Sierra Club Atlantic Chapter  
South Shore Audubon Society  
Transition Town Port Washington

September 10, 2021

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Congressional Delegation of North Carolina

Dear Mr. President and Members of the North Carolina Congressional Delegation,

Protecting North Carolina from dirty and dangerous offshore drilling is a critical step toward addressing the climate crisis and preserving our special coastline. On behalf of our thousands of members and supporters, we urge you to ensure that budget reconciliation ends new offshore oil drilling. Protecting our coasts from expanded offshore drilling will preserve the health of our oceans, coastal environment, and economy, as well as support thousands of jobs in industries like tourism, fishing, boating, real estate, and more that rely on a clean, oil-free coast.

On the Atlantic coast alone, 1.6 million jobs and \$127 billion in gross domestic product (GDP) rely on healthy ocean ecosystems. We know from experience that where we drill, we spill -- the 2010 BP Deepwater Horizon oil disaster is one of the most well-known examples. Drilling anywhere off the East coast would devastate our communities and livelihoods. Businesses could lose millions of dollars from toxic oil poisoning marine wildlife, closing beaches, and shutting down lucrative fishing areas. Alternatively, a clean, protected marine environment with properly managed fisheries supports jobs and economic activity for generations to come.

A recent analysis also found that permanent offshore drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions, which is equivalent to taking every car in the nation off the road for 15 years. It would also prevent more than \$720 billion in damages associated with climate change to people, property and the environment. For comparison, this is like losing the entire economy of a major city, like Washington, D.C., Boston or Atlanta, for an entire year.

Offshore drilling for fossil fuels generates greenhouse gas pollutants like carbon dioxide and methane at every step along the way. Protecting our oceans and coasts from new drilling is our best chance to prevent these

emissions from ever entering the atmosphere and contributing to climate change and its already devastating effects on our lives and livelihoods.

Support for permanently protecting our coast from offshore drilling is bipartisan and widely popular. More than 390 coastal municipalities have formally opposed drilling off their coast, including 45 in North Carolina alone: Arapahoe, Asheville, Atlantic Beach, Bald Head Island, Beaufort, Belville, Calabash, Carolina Beach, Carolina Shores, Carrboro, Caswell Beach, Cedar Point, Chapel Hill, Currituck County, Dare County, Duck, Emerald Isle, Holden Beach, Holly Ridge, Hyde County, Indian Beach, Kill Devil Hills, Kitty Hawk, Kure Beach, Leland, Manteo, Morehead City, Nags Head, New Hanover County, North Topsail Beach, Oak Island, Ocean Isle Beach, Orange County, Oriental, Pine Knoll Shores, Shallotte, Southern Shores, Southport, St. James, Sunset Beach, Surf City, Swansboro, Topsail Beach, Wilmington, and Wrightsville Beach. Nearly every West and East coast governor and tens of thousands of businesses oppose expanded offshore drilling as well.

Now is the time to act and permanently protect our climate, ocean, and coastal economies from dirty and dangerous offshore drilling. You have a narrow opportunity to enact these protections during budget reconciliation. We're counting on your leadership to protect our coastal communities and take strong action on climate change.

Sincerely,

Oceana  
Cape Fear River Watch  
Citizens for Protecting the Atlantic Coast (CPAC)  
Coastal Carolina Riverwatch  
NC Council of Churches  
NC Interfaith Power & Light  
NC League of Conservation Voters  
NC Sierra Club  
Save Our Sea NC

September 10, 2021

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Congressional Delegation of Massachusetts

Dear Mr. President and Members of the Massachusetts Congressional Delegation,

Protecting Massachusetts from dirty and dangerous offshore drilling is a critical step toward addressing the climate crisis and preserving our special coastline. On behalf of our thousands of members and supporters, we urge you to ensure that budget reconciliation ends new offshore oil drilling. Protecting our coasts from expanded offshore drilling will preserve the health of our oceans, coastal environment, and economy, as well as support thousands of jobs in industries like tourism, fishing, boating, real estate, and more that rely on a clean, oil-free coast.

On the Atlantic coast alone, 1.6 million jobs and \$127 billion in gross domestic product (GDP) rely on healthy ocean ecosystems. We know from experience that where we drill, we spill -- the 2010 BP Deepwater Horizon oil disaster is one of the most well-known examples. Drilling anywhere off the East coast would devastate our communities and livelihoods. Businesses could lose millions of dollars from toxic oil poisoning marine wildlife, closing beaches, and shutting down lucrative fishing areas. Alternatively, a clean, protected marine environment with properly managed fisheries supports jobs and economic activity for generations to come.

A recent analysis also found that permanent offshore drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions, which is equivalent to taking every car in the nation off the road for 15 years. It would also prevent more than \$720 billion in damages associated with climate change to people, property and the environment. For comparison, this is like losing the entire economy of a major city, like Washington, D.C., Boston or Atlanta, for an entire year.

Offshore drilling for fossil fuels generates greenhouse gas pollutants like carbon dioxide and methane at every step along the way. Protecting our oceans and coasts from new drilling is our best chance to prevent these



emissions from ever entering the atmosphere and contributing to climate change and its already devastating effects on our lives and livelihoods.

Support for permanently protecting our coast from offshore drilling is bipartisan and widely popular. More than 390 coastal municipalities, nearly every East and West coast governor, and tens of thousands of businesses have formally opposed drilling off their coast. In 2018, Massachusetts Governor Charlie Baker and the entire Massachusetts Congressional Delegation called on the Trump administration to end their offshore drilling plan.

Now, we must act to permanently protect our climate, ocean, and coastal economies from dirty and dangerous offshore drilling. You have a narrow opportunity to enact these protections during budget reconciliation. We're counting on your leadership to protect our coastal communities and take strong action on climate change.

Sincerely,

Oceana  
Berkshire Environmental Action Team (BEAT)  
City of Newton  
Green Hudson  
Levanah Farm  
New England Coastal Wildlife Alliance  
Ocean River Institute  
Seaside Sustainability  
Sheffield Saves  
Sierra Club Massachusetts  
Women Working for Oceans



1025 Connecticut Ave., NW Suite 200  
Washington, DC 20036

+1.202.833.3900  
[OCEANA.ORG](http://OCEANA.ORG)

September 10, 2021

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Congressional Delegation of Florida

Dear Mr. President and Members of the Florida Congressional Delegation,

Protecting Florida from dirty and dangerous offshore drilling is a critical step toward addressing the climate crisis and preserving our special coastline. On behalf of our thousands of members and supporters, we urge you to ensure that budget reconciliation ends new offshore oil drilling. Protecting our coasts from expanded offshore drilling will preserve the health of our oceans, coastal environment, and economy, as well as support thousands of jobs in industries like tourism, fishing, boating, real estate, and more that rely on a clean, oil-free coast.

On the Atlantic coast alone, 1.6 million jobs and \$127 billion in gross domestic product (GDP) rely on healthy ocean ecosystems. We know from experience that where we drill, we spill -- the 2010 BP Deepwater Horizon oil disaster is one of the most well-known examples. Drilling anywhere off Florida's coast would devastate our communities and livelihoods. Businesses could lose millions of dollars from toxic oil poisoning marine wildlife, closing beaches, and shutting down lucrative fishing areas. Alternatively, a clean, protected marine environment with properly managed fisheries supports jobs and economic activity for generations to come.

A recent analysis also found that permanent offshore drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions, which is equivalent to taking every car in the nation off the road for 15 years. It would also prevent more than \$720 billion in damages associated with climate change to people, property and the environment. For comparison, this is like losing the entire economy of a major city, like Washington, D.C., Boston or Atlanta, for an entire year.

Offshore drilling for fossil fuels generates greenhouse gas pollutants like carbon dioxide and methane at every step along the way. Protecting our oceans and coasts from new drilling is our best chance to prevent these emissions from ever entering the atmosphere and contributing to climate change and its already devastating effects on our lives and livelihoods.

Support for permanently protecting our coast from offshore drilling is bipartisan and widely popular. More than 390 coastal municipalities have formally opposed drilling off their coast, including over 100 in Florida. Nearly every East and West coast governor and tens of thousands of businesses oppose expanded offshore drilling as well.

Now is the time to act and permanently protect our climate, ocean, and coastal economies from dirty and dangerous offshore drilling. You have a narrow opportunity to enact these protections during budget reconciliation. We're counting on your leadership to protect our coastal communities and take strong action on climate change.

Sincerely,

Oceana  
Boca Save our Beaches  
The CLEO Institute  
Florida Conservation Voters  
Food & Water Watch and Food & Water Action  
Healthy Gulf  
League of Women Voters of Florida  
Matanzas Riverkeeper  
ReThink Energy Florida  
Sanibel-Captiva Conservation Foundation  
Sierra Club Florida  
The Surfrider Foundation

September 10, 2021

The President  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Congressional Delegation of California

Dear Mr. President and Members of the California Congressional Delegation,

Protecting California from dirty and dangerous offshore drilling is a critical step toward addressing the climate crisis and preserving our special coastline. On behalf of our thousands of members and supporters, we urge you to ensure that budget reconciliation stops new offshore oil drilling. Protecting our coasts from expanded offshore drilling will preserve the health of our oceans, coastal environment, and economy, as well as support thousands of jobs in industries like tourism, fishing, boating, real estate, and more that rely on a clean, oil-free coast.

On the Pacific coast alone, 830,000 jobs and \$70 billion in gross domestic product (GDP) rely on healthy ocean ecosystems. We know from experience that where we drill, we spill -- the 1969 Santa Barbara blowout and the pipeline rupture on Refugio Beach in 2015 are only the two most well-known examples along our coast. Drilling anywhere off the West coast would devastate our communities. Businesses could lose millions of dollars from toxic oil poisoning marine wildlife, closing beaches, and shutting down lucrative fishing areas. A clean marine environment with properly managed fisheries supports jobs and economic activity for generations to come.

A recent analysis also found that permanent offshore drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions, which is equivalent to taking every car in the nation off the road for 15 years. It would also prevent more than \$720 billion in damages associated with climate change to people, property and the environment. For comparison, this is like losing the entire economy of a major city, like Washington, D.C., Boston or Atlanta, for an entire year.

Offshore drilling for fossil fuels generates greenhouse gas pollutants like carbon dioxide and methane at every step along the way. Protecting our oceans and coasts from new drilling is our best chance to prevent these emissions from ever entering the atmosphere and wreaking havoc on our lives and livelihoods.

Support for permanently protecting our coast from offshore drilling is bipartisan and widely popular. More than 390 coastal municipalities have formally opposed drilling off their coast, including the cities of Santa Barbara, Berkeley, Los Angeles, Manhattan Beach, San Diego, San Clemente, Ventura, Santa Cruz, San Francisco, Sonoma County, Chula Vista, Fort Bragg, Imperial Beach, Costa Mesa, Dana Point, and Laguna Beach. Nearly every West and East coast governor and tens of thousands of businesses oppose expanded offshore drilling as well.

Now is the time to act and permanently protect our climate, ocean, and coastal economies from dirty and dangerous offshore drilling. You have a narrow opportunity to enact these protections during budget reconciliation. We're counting on your leadership to protect our coastal communities and take strong action on climate change.

Sincerely,

Oceana  
Azul  
Clean Water Action  
Commonweal  
Earthjustice  
Ecology Center  
Environmental Action Committee of West Marin  
Los Angeles Waterkeeper  
Marin Conservation League  
Ocean Connectors  
Ocean Conservation Research  
Ocean Conservation Society  
Save Our Shores  
Social Eco Education (SEE-LA)  
Surfrider Foundation

**From:** Rob Werner <rob\_werner@lcv.org>

**To:** "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>, "Baker, Karen J" <Karen.Baker@boem.gov>

**Subject:** [EXTERNAL] THIS MONDAY! all you need to know about Offshore Wind in just one hour

**Date:** Fri, 2 Jun 2023 02:35:45 +0000

**Inline-Images:** image.png; image(1).png; image(2).png

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Hello Liz and Karen -

FYI about the OSW event I am moderating on Monday...a great crew, and we're very pleased the Stan Labak can join us! We have very strong turnout among policymakers and community leaders.

I though the BOEM meetings in Bangor were very informative and well managed - not always easy to do.

Onward!

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
(603) 674-9810

---

## Link

to single-page Flyer: [FLYER](#)  
[Clearing the Fog](#)



**NEW**  
**HAMPSHIRE NETWORK for**  
**Environment**

.

**Clearing**  
**the Fog: *Benefits***  
**& *Challenges of***  
***Offshore***  
***Wind for New England***

**SAVE**

**THE DATE: June 5, 2023**

**Media**

**Contacts:**

**Donna**

**Reardon,**

NH Network Communication (b) (6)

(603) 496 0252

**Susan**

**Richman,**

NH Network Communication (b) (6)

(603) 868-2758

Off shore

wind in New England' greatest untapped energy resource. But today, Europe has well over

**5000**

off shore

turbines producing carbon free energy, while the US has exactly 7.

We

are seeing a push to access this clean energy, but turns out – *it's complicated!*

There is pushback from many quarters.

A

fog of myths and misconceptions is gathering around the issue.

In

this event, a panel of experts will dispel the fog of misinformation, helping us understand the real benefits – as well as the challenges – of offshore wind in NH and in New England.

**WHO:**

- *Moderated by*  
**Rob Werner**  
(NH  
State Director, League of Conservation Voters ;  
Chair, NHNE4OSW)
- **Carol Oldham,**  
Northeast Director, Business Network for Offshore Wind *on  
business & supply chains*
- **Melissa Birchard,**  
Senior Policy Advisor, Grid Deployment Office, US DoE -  
*on transmission challenges & solutions*
- **Joe O'Brien,**  
Political & Legislative Director, N. Atlantic States Regional Council of Carpenters -  
*on labor*
- **Stan Labak,**  
Lead, Center for Marine Acoustics, BOEM - *on  
marine biodiversity impacts*
- **Amber Hewett,**  
Offshore Wind Program Director, National Wildlife Federation -  
*on wildlife Impacts*

This event  
is sponsored by

**NH**

***Network for Environment • Energy • Climate***

**WHAT:**

Our five panelists will each discuss the specific benefits and challenges of moving to deploy clean energy from offshore wind in New England and the Gulf of Maine. They will dispel myths around OSW and map out pathways forward.

**WHEN:**

Monday,  
June 5, 2023, 5:30 - 7:00 pm (admission is free)



## WHERE:

A virtual event; registration is required.

RSVP

at

[bit.ly/June5ClearingTheFog](https://bit.ly/June5ClearingTheFog).

Registrants will receive the recording of the event.

## WHY:

With its near-continuous winds and other technical advantages, the North Atlantic seaboard is one of Earth's ideal sites for offshore wind development. However, no big change is easy or simple, and objections have been raised. Anyone interested in the pursuit of a non carbon energy economy in the US will be interested to hear from the expert on several key aspects of OSW deployment, current progress, and way forward. Bring your question for audience Q&A

## Link

to single-page Flyer: [FLYER](#)  
[Clearing the Fog](#)

## Link

to this Media Advisory: [MEDIA](#)  
[ADVISORY Clearing the Fog](#)



## The

***NH Network for Environment•Energy•Climate links***

*citizens statewide, to share information and implement actions for a sustainable New Hampshire*

*Learn more at*

[www.newhampshirenetwork.org](http://www.newhampshirenetwork.org)



Artwork

by Sharif Tarabay for a London Awareness Campaign for OSW, based on Caspar

David Friedrich' iconic Romantic landscape painting, ***Wanderer above a Sea of Fog***

(1818).

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**From:** "Messmer, Michael" <mmessmer@oceana.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "emily.lindow@boem.gov" <emily.lindow@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "megan.carr@boem.gov" <megan.carr@boem.gov>, "william.brown@boem.gov" <william.brown@boem.gov>, "michael.celata@boem.gov" <michael.celata@boem.gov>, "james.kendall@boem.gov" <james.kendall@boem.gov>, "thomas.liu@boem.gov" <thomas.liu@boem.gov>, "Cook, Karla D." <Karla.Cook@boem.gov>

**Subject:** [EXTERNAL] Thank you for Wednesday's offshore drilling discussion

**Date:** Fri, 30 Apr 2021 21:56:49 +0000

**Attachments:** Tracking\_Doc,\_Look\_Book.\_Oceana\_coverage\_of\_Biden\_Order.docx

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Director Lefton, Dr. Cruickshank, Team BOEM:

For myself and on behalf of the other participants on Wednesday's morning's Teams meeting, thank you. We are glad to have been able to share with you the deep and bipartisan nature of the opposition to offshore drilling, and we thank you for your invitation to continue the conversation.

For your information, please find attached a document featuring a link to Oceana's January 2021 [analysis](#) highlighting the importance of offshore drilling protections in the fight against the climate crisis, as well as media coverage of President's climate actions using Oceana's analysis. Selected screenshots thanking the President for his climate action are also included.

Again, our sincere thanks. We look forward to continuing the conversation as we work to protect our coasts.

Wishing all of you a good weekend.

Sincerely,  
Mike Messmer

**Michael Messmer** | Federal Policy Manager



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# Oceana Biden Response Tracking, Positive Press and Social Media

In the lead up to President Biden’s announced “climate day,” Oceana released an [analysis](#) highlighting the importance of offshore drilling protections in the fight against the climate crisis. Oceana organized allies to engage in a strategic communications campaign prior to the release of the President’s executive actions. This included disseminating message guidance to partners, national and local media outreach, and digital media coordination through the creation of shareable graphics and positive messages. We encouraged our partners and grassroots supporters to thank President Biden on social media for his action using our graphics and messaging.

Media coverage using Oceana’s analysis in coverage of President Biden’s climate action as well as selected screenshots from social media below

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## Press

- [The New York Times](#)
- [The Washington Post](#)
- [AFP](#)
- [USA Today](#) (op-ed by Jackie Savitz)
- [The Hill](#) (op-ed by Diane Hoskins)
- [The Hill](#)
- [Politico](#)
- [Bloomberg](#)
- [Financial Times](#)
- [The Telegraph](#)
- [Le Monde](#)
- [WMFE \(Central Florida NPR affiliate\)](#)
- [WTLV-JAX](#)
- [Santa Rosa Press Democrat](#)
- [The News Guard](#)
- [NJ.com](#) -
- [Coastal Review Online](#)
- [Houma Today](#)
- [Common Dreams](#)
- [The Inertia](#)

# The New York Times

## Biden, Emphasizing Job Creation, Signs Sweeping Actions to Fight Climate Change

By Lisa Friedman, Coral Davenport and Christopher Flavelle  
Jan. 27, 2021

WASHINGTON — President Biden on Wednesday signed a sweeping series of executive orders that aim to “confront the existential threat of climate change” throughout the federal government, framing them as an economic boon that would create millions of new jobs.

...

The move is one that climate change advocates had long sought and many said they hope the Biden administration will go still further and deny permits for new oil and gas leasing. Oceana, an environmental group focused on ocean health, released an analysis this week finding that ending new leasing for offshore oil and gas could prevent over 19 billion tons of greenhouse gas emissions.

“More drilling means more climate pollution that we simply cannot afford,” said Diane Hoskins, campaign director at Oceana.

*Duplicates including [The Seattle Times](#)*

# The Washington Post

## Biden likely to halt new fossil fuel leasing on federal lands and waters Wednesday

**The planned moratorium would halt oil and gas auctions for one year and coal leasing for three years**

By Juliet Eilperin and Dino Grandoni  
Jan. 25, 2021

President Biden is poised to impose a moratorium on new federal oil, gas and coal leasing Wednesday, according two individuals briefed on the matter who spoke on

the condition of anonymity because the plan was still being finalized. The move will deliver on one of Biden's boldest climate campaign pledges but will encounter stiff resistance from the fossil fuel industry.

...

While the oil and gas lobby gears up for a fight, environmental advocates are sustaining pressure on Biden to keep his commitment to end leasing and permitting on federal acreage. Among them is Oceana, a marine conservation group, which is set to release a report Tuesday detailing how reversing the Trump administration's plan to open up nearly all U.S. coastal waters to drilling would prevent more than 19 billion tons of greenhouse gas emissions.

So far, activists are pleased with Biden's quick climate actions. "At this point, I'm excited about the president's agenda," said Diane Hoskins, a campaign director at Oceana.

*Duplicate: USA News Hub*



## Biden poised to halt fossil fuel leasing on federal land

By Issam Ahmed

Jan. 27, 2021

WASHINGTON (AFP) - US President Joe Biden was planning to announce new bans on oil and gas drilling on federal lands Wednesday as part of a raft of actions that take aim at climate change, according to reports and a White House memo.

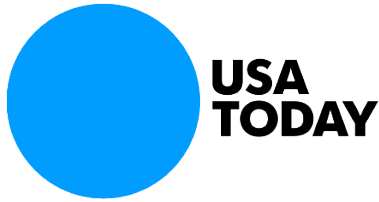
...

Nonprofit Oceana has called on Biden to go further and turn the moratorium into a ban.

It released an analysis Tuesday that found making offshore drilling protections permanent for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions and more than \$720 billion in damages.

"By permanently protecting our coasts from dirty offshore drilling and advancing clean energy sources like offshore wind, we can simultaneously combat climate change and safeguard our clean coast economy," said Oceana campaign director Diane Hoskins.

*Many duplicates including [Phys.org](#), [VOA](#), [Dawn](#)*



## A pause on offshore drilling is a good first step. Let's make it permanent.

By Jacqueline Savitz, Opinion Contributor  
Feb. 2, 2021

President Joe Biden hit the ground sprinting on his first day of office. On day one he rejoined the Paris Agreement, and now he has announced a pause on offshore oil and gas leasing. It's exciting to hear the president's plan to return science to policy decision-making, even advancing his science adviser to a cabinet-level position. These encouraging moves will certainly translate to more effective action on climate.

Oil and gas are killing us. Burning fossil fuels is driving climate change, which is causing a wave of extinction and disasters that devastate property and the environment, and cost human lives. But President Biden has committed to aggressively address the climate crisis, which gives me great hope that we can work together to permanently protect our climate and coasts from offshore oil and gas.



## Permanently protecting our coasts is critical to addressing the climate crisis

Op-Ed by Diane Hoskins  
Jan. 26, 2021

President Biden made history last week, when he issued an executive order on Day One of his presidency to tackle the climate crisis, including formally rejoining the Paris Agreement and directing the federal government to account for the benefits of reducing climate pollution.

These actions stand in stark contrast to the denial of climate change and attacks our oceans and coasts have faced over the last four years. We must go further, but these bold early actions offer meaningful hope for the future.



## Biden pauses new oil and gas leasing on public lands and waters

By Joseph Guzman  
Jan. 27, 2021

President Joe Biden has taken action to stop issuing new leases for natural gas and oil development on federal lands and waters as part of his broader push to tackle climate change and transition to a clean energy economy.

...

"More drilling means more climate pollution that we simply cannot afford," Diane Hoskins, campaign director at conservation group Oceana, said in a statement.

"President Biden's actions are a win for the health of our ocean, our economy and our climate. We look forward to working with the Biden-Harris administration to permanently move away from dirty and dangerous offshore drilling toward clean, renewable energy sources like offshore wind," Hoskins said.

In an analysis released this week, Oceana said ending new leases could curb more than 19 billion tons of greenhouse gas emissions and save \$720 billion in damages to people, property and the environment. Drilling on federal lands is responsible for about a quarter of the nation's total greenhouse gas emissions.

## POLITICO

### Biden pitching a much vaster climate plan than Obama ever attempted

Climate activists celebrate "major step forward"

By Zack Colman and Ben Lefebvre  
Jan. 27, 2021



President Joe Biden is launching his sweeping assault on climate change with a much larger army of allies than Barack Obama had 12 years ago — a coalition that ranges from labor unions, anti-fracking activists and racial justice advocates to leaders of Wall Street, the auto industry and the U.S. Chamber of Commerce.

...

Green groups were quick to welcome Biden's climate initiatives, which had been the subject of chatter among environmental activists for weeks. Many of those groups had spent the past four years locked in court challenges against Trump's own steady stream of executive orders.

"These actions stand in stark contrast to the denial of climate change and the attacks our oceans and coasts have faced over the past four years," said Diane Hoskins, campaign director at Oceana, a group advocating for protection of oceans, of Biden's plans to place an open-ended moratorium on the issuing new leases for oil and gas drilling in federal waters. "This stuff is a major step forward."

# Bloomberg

## ENERGY BRIEFING: Schumer Wants Biden to Invoke Climate Emergency

By Zachary Sherwood and Kellie Lunney  
January 26, 2021

Senate Majority Leader [Chuck Schumer](#) called for President Joe Biden to declare a climate emergency, a controversial move that would give the new administration sweeping authority to circumvent Congress to combat global warming.

...

### **Conservation Group Wants Ban on New Offshore Drilling:**

Oceana is urging Biden to end all new leasing for offshore oil and gas production and direct the Bureau of Ocean Energy Management to nix upcoming scheduled lease sales. "President Biden has an incredible opportunity to act on climate change and protect our coasts once and for all by closing the chapter on future offshore oil leasing," said Oceana Campaign Director Diane Hoskins, Kellie Lunney reports.

Oceana also wants Congress to pass a permanent ban on all new leasing on offshore drilling. The group today rolled out an [analysis](#) that estimated canceling new drilling in federal waters would prevent more than \$720 billion in damages to the people, the environment, and property.

## Inside the Keystone XL Pipeline Fallout

By Derek Brower and Myles McCormick

Jan. 26, 2021

### The real impact of a federal lease freeze

I hate to tell it to climate change activists, but the Biden administration's two-month suspension of new oil and gas activity on federal lands could be the first step towards a more permanent ban. It's possible, but it's unlikely to hit the United States hard. Oil production or emission, at least soon.

Advocacy group Oceana claims in a new report that the end of offshore drilling will prevent future greenhouse gas emissions of 19 billion tonnes (equivalent to three years of total US annual emissions), but oil And the gas industry has a favorable start.

NEWS WEBSITE OF THE YEAR

**The Telegraph**

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## Joe Biden to ban oil and gas drilling on public land in wide-ranging climate change measures

By Nick Allen

January 26, 2021

### Mr Biden has vowed to reduce carbon emissions.

Joe Biden is set to ban new oil and gas drilling on land owned by the US government as he unveils wide-ranging climate change plans.

Mr Biden indicated his administration would move quickly to reverse Donald Trump's policies on energy and the environment

...

"The administration's review, if done correctly, will show that filthy fracking and drilling must end for good, everywhere."

Oceana, a marine conservation group, said it was "very excited about the president's agenda."

## United States: Joe Biden announces international climate summit on April 22

**The President of the United States announced that climate considerations would become an essential part of American diplomacy and security policies.**

Jan. 27, 2021

Determined to implement his climate plan, United States President Joe Biden announced a moratorium on oil drilling on federal lands and waters as well as an international summit on Wednesday, January 27. The United States must "guide the global response" to the climate crisis, said Wednesday Mr. Biden before signing decrees to fight against global warming. "Just as we need a united national response to Covid-19, we desperately need a united national response to the climate crisis, because there is a climate crisis," he said.

...

With this series of measures, Joe Biden is thus getting closer in a concrete way to his goal of phasing out fossil fuels, and carbon neutrality in the energy sector by 2035 and in the economy as a whole. 'by 2050. But some environmental associations, such as the NGO Oceana, want the new White House host to go even further, transforming the moratorium on drilling into a permanent ban.



## Biden Executive Order Staves Off Offshore Drilling Near Florida

**WMFE (Central Florida NPR Affiliate)**

By Amy Green

Jan. 28, 2021

New oil and gas development will remain paused in federal waters off Florida's coasts under an executive order signed by President Joe Biden. The order is part of a seismic shift in federal policy on climate change under the new administration.

The order reaffirms a 10-year moratorium on new drilling off the coasts of southeastern states including Florida, which former President Donald Trump announced shortly before the election.

But for most of his term Trump had sought to expand offshore drilling. Erin Handy of Oceana says Biden's action is good news in a state where offshore drilling is strongly opposed.

"Over 100 Florida municipalities took a formal stand and passed resolutions over the last five years opposing offshore drilling. They know this is not the right way to go."

## Executive Orders: Federal Oil Pause

**WTLV-JAX (NBC)**

Jan. 27, 2021

"President Biden is expected to sign an executive order pausing all federal oil and gas leasing. the conservation organization Oceana applauded this decision. Their scientists found that President Biden's decision could prevent nearly 20 billion tons of greenhouse gas emissions. They say it could also save over seven hundred and twenty billion dollars in property damage."

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The Press Democrat

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## Biden pauses new offshore oil leases, shielding California coast from more drilling rigs

By Guy Kovner

Jan. 27, 2021

President Joe Biden's order Wednesday pausing new offshore oil leases will temporarily shield California coastal waters from the prospect of expanded oil development under a Trump administration plan unveiled two years ago.

...

Ending new offshore oil and gas leasing could prevent more than 19 billion tons of greenhouse gas emissions and more than \$720 billion in damages to people, property and the environment, according to report this week by Oceana, an international conservation advocacy organization

Every East and West Coast governor has expressed "opposition and concern" over offshore oil drilling, the group said.



## President Biden to pause leasing for new offshore drilling

Jan 28, 2021

Pacific Northwest marine advocates are celebrating the recent announcement from the Biden administration to pause oil and gas leasing on federal lands and waters.

Advocates with the Protect the Pacific Coalition cite the need to protect the U.S. coastal economy from the risks of oil spills, the growing urgency of addressing the climate crisis, and the potential for healthy oceans to serve as a powerful climate solution.

...

"President Biden has an incredible opportunity to act on climate change and protect our coasts once and for all by closing the chapter on future offshore oil leasing," said Diane Hoskins, Campaign Director of Oceana. "If enacted, President Biden's campaign commitments to tackle the climate crisis and protect our waters from new offshore oil drilling will ensure we build back better, keep coastal economies safe from oil disasters and support a transition to clean, renewable energy."



## Move to allow oil drilling off the Jersey Shore would stop under Biden climate change plan

Jan. 27, 2021

By Jonathan D. Salant

Oil rigs [off the Jersey Shore](#) became increasingly unlikely Wednesday when President Joe Biden announced a pause in new oil and gas drilling as part of his efforts to combat climate change.

Biden's executive orders, signed Wednesday, will block for now former President Donald Trump's effort to [open most of the Atlantic Coast](#) to oil drilling. That was a reversal of President Barack Obama's decision to keep the Atlantic Coast [off limits](#) through at least 2022.

“We’re gone for a 180 degree turn on almost every environmental policy,” said Jeff Tittel, director of the New Jersey Sierra Club, an environmental organization. “The biggest difference is Trump wanted oil wells off our coast and Biden wants windmills. We’ll be looking at green jobs in wind instead of the worrying about oil spills ruining our tourist economy.”

...

“More drilling means more climate pollution that we simply cannot afford,” said Diane Hoskins, campaign director for the environmental group Oceana. “Climate change is already wreaking havoc on our lives and livelihoods and it’s a relief to see President Biden putting solutions to the climate crisis first.”



**Coastal Review Online**

A Daily News Service Covering North Carolina's Coast

## Biden Signs Order On Climate, EJ, Natural Gas

Jan. 28, 2021

President Joe Biden signed Wednesday a sweeping [executive order](#) that addresses climate change, environmental justice and when possible, pauses new oil and natural gas leases on public lands or offshore waters.

The order, which elevates climate considerations as an element of U.S. foreign policy and national security, directs the Department of Interior to launch a review of all existing leasing and permitting practices related to fossil fuel development on public lands and waters and identify steps to double renewable energy production from offshore wind by 2030.

...

“Oceana applauds the president’s bold action to halt new offshore oil and gas leasing. More drilling means more climate pollution that we simply cannot afford. Climate change is already wreaking havoc on our lives and livelihoods and it’s a relief to see President Biden putting solutions to the climate crisis first,” said Diane Hoskins, campaign director at Oceana, in a statement. “President Biden’s actions are a win for the health of our ocean, our economy and our climate. We look forward to working with the Biden-Harris administration to permanently move away from dirty and dangerous offshore drilling toward clean, renewable energy sources like offshore wind.”

Oceana released an [analysis](#) this week that shows ending new leasing for offshore oil and gas could prevent over 19 billion tons of greenhouse gas emissions and more than \$720 billion in damage to people, property and the environment.

**houmatoday**

# In Louisiana, President Biden oil plans spark job and economic concerns

**Environmentalists counter such restrictions are an essential step toward fulfilling Biden's pledge to fight global warming.**

By Keith Magill  
Jan. 26, 2021

Business and energy industry officials expressed concern Tuesday that pending restrictions by President Joe Biden will cost Louisiana and other oil-dependent states jobs and damage their economies.

Environmentalists counter such restrictions are an essential step toward fulfilling Biden's pledge to reduce the pollution, rising seas and other ill effects greenhouse gasses from fossil fuels are wreaking on the planet.

...

Oceana, an international environmental group, is pushing the Biden administration to enact such a ban.

"By permanently protecting our coasts from dirty offshore drilling and advancing clean energy sources like offshore wind, we can simultaneously combat climate change and safeguard our clean coast economy," Oceana campaign director Diane Hoskins said in a news release Tuesday. "President Biden has an incredible opportunity to act on climate change and protect our coasts once and for all by closing the chapter on future offshore oil leasing."

The group released an analysis that says permanent offshore-drilling protections for unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions as well as more than \$720 billion in damage to people, property and the environment.



**On Eve of Fossil Fuel Lease Moratorium, Biden Urged to Permanently Protect US Coast From Offshore Drilling**  
**"President Biden has an incredible opportunity to act on climate change and protect our coasts once and for all by closing the chapter on future offshore oil leasing."**

By Brett Wilkins  
Jan. 26, 2021

*Picked up by Red, Green and Blue*

As President Joe Biden prepares to announce a moratorium on new federal oil and gas leasing, the marine conservation organization Oceana on Tuesday called on the president to permanently protect the nation's coasts from offshore drilling, a move the group says could prevent over 19 billion tons of greenhouse gas emissions and over \$720 billion in damages to people, property, and the planet.

**"If enacted, President Biden's campaign commitments to tackle the climate crisis and protect our waters from new offshore oil drilling will ensure we build back better, keep coastal economies safe from oil disasters, and support a transition to clean, renewable energy."**

**—Diane Hoskins, Oceana**

The *Washington Post* [reports](#) Biden is set to impose the leasing moratorium on Wednesday in a dramatic reversal from former President Donald Trump's 11th-hour [deregulatory blitz](#) that included a rush to [auction off drilling rights](#) in the Arctic National Wildlife Refuge (ANWR).



## President Joe Biden Signs Sweeping Set of Executive Orders Halting Offshore Oil Drilling

By Alexander Haro  
Jan. 28, 2021

Just a few days after President Joe Biden officially took office, his administration made an announcement that has people who care about the environment celebrating: all new oil and gas leasing on federal lands and in federal waters will come to a halt. It's just one move of many that Biden is making to scrap a handful of environmental policies that came into effect under the previous administration. According to the BBC, Biden has signed more than three dozen executive orders in his first week in office, more than any of his predecessors.

...

According to Vipe Desai, a founding member of the Business Alliance for Protecting the Pacific Coast (BAPPC), clean beaches and a healthy ocean are exceedingly important to coastal economies.

"Coastal businesses are already reeling from the pandemic and need reassurances that we won't be dealing with oil spills in the future," he said. "The only way to guarantee that is to put the Trump vision for our coasts behind us and move forward with no new leasing."



## Savannah Morning News.

### Encouraged by President Biden's climate plan

Letter to the Editor by Paulita Bennet-Martin

Feb. 12, 2021

President Joseph Biden issued an executive order to address the climate crisis and announced, "climate day at the White House ... means it's jobs day." With this announcement, he made a clear commitment to protecting Georgia's coast from dirty and dangerous offshore drilling.

By pausing new leasing for offshore oil and gas, the president has taken a critical step toward permanently protecting our coasts. Coastal Georgia worked so hard to get us here. President Biden showed that he is listening to the voices of Savannah who have loudly and publicly opposed drilling off our coasts for years.

## CAPE COD TIMES

### State will benefit from Biden's stand against offshore drilling

Letter to the Editor by Nancy Downes

Feb. 14, 2021

Last week, President Biden issued an executive order to address the climate crisis and announced, "climate day at the White House ... means it's jobs day." With this announcement, he made a clear commitment to protecting Massachusetts' coast from new offshore drilling.

By pausing new leasing for offshore oil and gas, the president has taken a critical step toward permanently protecting our coasts. President Biden showed that he is listening to the voices of Massachusetts who have loudly and publicly opposed drilling off our coasts for years.

## Tampa Bay Times

### Ban Offshore Drilling

Letter to the Editor by Robin Miller

Feb. 22, 2021

For the last four years, Florida businesses have been at the forefront of protecting our coastal economy from former President Trump's offshore drilling plan. We have been beating the drum to let our elected officials know that oil rigs off our coast would place an enormous risk to our tourism-based economy that relies on clean and healthy oceans and beaches.

That's why we were delighted to see President Joe Biden issue an executive order to address the climate crisis and make a clear commitment to protect Florida's coast from dirty and dangerous offshore drilling.

## The San Diego Union-Tribune

### Kudos to Biden for protecting coastline

Letter to the Editor by Anthony Chivetta  
March 2, 2021

Recently President Joe Biden issued an executive order to address the climate crisis. With this announcement, he made a clear commitment to protecting California's coast from dirty and dangerous offshore drilling.

By pausing new leasing for offshore oil and gas, the president has taken a critical step toward permanently protecting our nation's coasts.

By permanently ending new offshore drilling, President Biden would be delivering on his commitments to address climate change and also protect the roughly 3.3 million American jobs — through activities like tourism, recreation and fishing — and \$250 billion in GDP that rely on a healthy, oil spill-free ocean.

## The News & Observer

### Offshore Drilling

Letter to the Editor by Randy Sturgill  
March 2, 2021

On his first day in office President Biden paused new leases for offshore oil and gas drilling. It was a critical step toward permanently protecting our coasts.

He showed that he's listening to those in North Carolina who've loudly and publicly opposed drilling off our shores for years.

Our climate is in crisis, with sea levels rising and devastation from extreme weather accelerating. It's estimated that permanently ending new offshore drilling could prevent 19 billion tons of greenhouse gas emissions and more than \$720 billion in damage to people, property, and the environment.

We cannot afford more drilling.

---

*Many duplicates of press release from Business Wire including: AP (hosted), Yahoo! Finance, Digital Journal, MarketScreener.com, Morningstar.com, Daily Times Leader, Financial.de, beta.financial.de, Malvern Daily Record, Le Léopard: Toutes les Nouvelles, ADVFN Deutschland and TD Ameritrade, YubaNet.*

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## Social Media



Biden poised to halt new fossil fuel leasing on federal land and water Wednesday.

"At this point, I'm excited about the president's agenda," Oceana's [@kdianehoskins](#) via [@washingtonpost](#): [wapo.st/3t057mn](https://wapo.st/3t057mn) #ProtectOurCoast





...

THANK YOU, @POTUS Joe Biden for halting dirty and dangerous offshore drilling. Ending new offshore drilling is a win for our climate and our economy! It's #TimeToAct #ProtectOurCoast & the Biden-Harris admin is doing just that.



- Facebook: [Oceana in South Carolina](#)
  - Yesterday, the Biden-Harris administration issued an executive order that included a pause on all federal offshore and offshore oil and gas leasing. Thank you President Joe Biden and Vice President Kamala Harris for your bold action to address climate change! We must permanently move away from offshore drilling and move towards clean, renewable energy sources like offshore wind.

#ProtectOurCoast #TimeToAct

- Facebook: [Oceana in South Carolina](#)
  - Oceana applauds the executive order announced today to halt new offshore oil and gas leasing. President Biden's actions are a win for the health

of our ocean, our economy and our climate. We look forward to



working with the Biden-Harris administration to permanently move away from dirty and dangerous offshore drilling toward clean, renewable energy sources like offshore wind. Read Oceana's new analysis here: [oceana.org/climatecrisis](https://oceana.org/climatecrisis)

- Facebook: [Don't Drill S.C.](#)
  - Business Alliance for Protecting the Atlantic Coast: [Coastal Businesses Thank President Biden for Bold Climate Action](#)
- Facebook: [Oceana in Southern California](#)
- Facebook: [Oceana in Washington](#)
- Twitter: [Oceana](#)

- Twitter: [Oceana](#)
- Twitter: [Oceana in South Carolina](#)
  - [Coastal Businesses Thank President Biden for Bold Climate Action](#)
- Twitter: [Business Alliance for Protecting the Pacific Coast](#)
- Instagram: [Oceana in Florida](#)
- Instagram: [Business Alliance for Protecting the Atlantic Coast](#)
- Instagram: [Oceana in New York](#)
- Business Alliance for Protecting the Atlantic Coast: [Coastal Businesses Thank President Biden for Bold Climate Action](#)

**From:** David Shadburn <dshadburn@lcv.org>

**To:** "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "Isis.Farmer@boem.gov" <Isis.Farmer@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Cook, Karla D." <Karla.Cook@boem.gov>

**Subject:** [EXTERNAL] Thank you for meeting with LCV!

**Date:** Fri, 20 May 2022 13:39:38 +0000

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good morning,

Thank you so much for taking the time to meet with LCV and our state leagues last week. We are all so excited about the work BOEM is doing on offshore wind, and we hope to be as helpful as possible throughout the upcoming comment periods, appropriations cycles, and more. Please thank Director Lefton on our behalf as well!

As we mentioned in our meeting, our state affiliates were in DC as part of a big advocacy week around **passing the \$555 B in climate, jobs, and justice investments from the House-passed reconciliation bill as soon as possible**. Your agency's leadership on meeting our ambitious renewable energy deployment goals are so critical to meeting our science-based climate targets, but we know congressional action is needed to get us all the way there. **We urge you to weigh in with the President and his leadership team to prioritize closing a deal on this as soon as possible**.

I'm including here our virtual leave-behind, which is admittedly more targeted towards our congressional meetings, but I wanted to make sure you saw it as well. It includes our top priorities within the \$555 B, polling on gas prices, a fact sheet on equity investments in the House-passed bill, and more: <https://lcv.org/advocacy-week-2022>

I've also included the contact information for everyone who attended the meeting below in case you're interested in following up with any of them. Thank you so much again, and we would love to keep in touch on ways we can be helpful and work together going forward!

All the best,  
-David

Massachusetts  
Juan Pablo Jaramillo, [jjaramillo@elmaction.org](mailto:jjaramillo@elmaction.org)  
Susannah Hatch, [shatch@environmentalleague.org](mailto:shatch@environmentalleague.org)

Maine  
Abigail Bradford [abigail@maineconservation.org](mailto:abigail@maineconservation.org)

North Carolina  
Dustin Ingalls, [dustin@nclcv.org](mailto:dustin@nclcv.org)  
Montravias King, [montravias@nclcv.org](mailto:montravias@nclcv.org)  
Jose Saucedo, [jose@nclcv.org](mailto:jose@nclcv.org)

New Jersey

Patty Cronheim, [patty.cronheim@njlcv.org](mailto:patty.cronheim@njlcv.org)

Virginia

Michael Town, [mtown@valcv.org](mailto:mtown@valcv.org)

Nathaniel Leies, [nleies@valcv.org](mailto:nleies@valcv.org)

Dane Levis, [dlevis@lcv.org](mailto:dlevis@lcv.org)

--

David Shadburn (he/him)

Government Affairs Advocate, Climate Change and Clean Energy

League of Conservation Voters

Cell: (917) 742-3078

**From:** Rob Werner <rob\_werner@lcv.org>

**To:** "Baker, Karen J" <Karen.Baker@boem.gov>, "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>

**Cc:** "Gillette, Connie S" <Connie.Gillette@boem.gov>, "Kornacki, Andrew A" <Andrew.Kornacki@boem.gov>

**Subject:** Re: [EXTERNAL] Video for NH Energy Week - thanks!

**Date:** Mon, 24 Apr 2023 13:02:47 +0000

---

Hi Karen -

Thanks for reaching out. I look forward to seeing you and the OEM team in Maine soon. We'll have more info on our New Hampshire June event then.

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
(603) 674-9810

---

**From:** Baker, Karen J <Karen.Baker@boem.gov>

**Sent:** Monday, April 24, 2023 8:55 AM

**To:** Klein, Elizabeth A <Elizabeth.Klein@boem.gov>; Rob Werner <rob\_werner@lcv.org>

**Cc:** Gillette, Connie S <Connie.Gillette@boem.gov>; Kornacki, Andrew A <Andrew.Kornacki@boem.gov>

**Subject:** RE: [EXTERNAL] Video for NH Energy Week - thanks!

Thank you, Liz

Rob – glad to be connected. As Liz stated, I will be at the Gulf of Maine task force meeting. Connecting you with my Engagement Team members who are helping with the planning. Please let us know if we can provide you with any fact sheets or information to help with your June event.

Karen

Karen J. Baker  
Chief, Office of Renewable Energy Programs  
Bureau of Ocean Energy Management  
Phone: 571-363-9254  
[Karen.Baker@boem.gov](mailto:Karen.Baker@boem.gov)



---

**From:** Klein, Elizabeth A <Elizabeth.Klein@boem.gov>  
**Sent:** Monday, April 24, 2023 8:52 AM  
**To:** Rob Werner <rob\_werner@lcv.org>; Baker, Karen J <Karen.Baker@boem.gov>  
**Subject:** Re: [EXTERNAL] Video for NH Energy Week - thanks!

Hi Rob,  
Glad to hear the video works! I'm copying our head of the Office of Renewable Energy Programs, Karen Baker, who I think will also be at the Gulf of Maine task force meeting next month. We're looking forward to the feedback from that meeting.  
Thanks,  
Liz

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---

**From:** Rob Werner <[rob\\_werner@lcv.org](mailto:rob_werner@lcv.org)>  
**Sent:** Monday, April 24, 2023 8:44 AM  
**To:** Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>  
**Subject:** [EXTERNAL] Video for NH Energy Week thanks!

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Good morning, Liz

Thanks so much for recording the video for New Hampshire Energy Week it's spot on and exactly what we are looking for!

The NH Energy Week kick off event is coming up on Monday, May 1st I'll provide the link for the event to you and your team

I'll be at the BOEM GOM task Force meeting in Bangor, Maine next month looking forward to continued progress

In addition, our New England for Offshore Wind (NE4OSW) New Hampshire team is convening an event for June 5<sup>th</sup> (virtual) to continue to educate policymakers and community leaders on the benefits of offshore wind and to counter misinformation.

Keep on!

Best,

Rob

Rob Werner  
New Hampshire State Director  
League of Conservation Voters  
(603) 674-9810

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>, "andrew\_wallace@ios.doi.gov" <andrew\_wallace@ios.doi.gov>, "blossom.robinson@boem.gov" <blossom.robinson@boem.gov>, "connie.gillette@boem.gov" <connie.gillette@boem.gov>, "danielle\_decker@ios.doi.gov" <danielle\_decker@ios.doi.gov>, "eric\_werwa@ios.doi.gov" <eric\_werwa@ios.doi.gov>, "joan\_mooney@ios.doi.gov" <joan\_mooney@ios.doi.gov>, "elizabeth\_klein@ios.doi.gov" <elizabeth\_klein@ios.doi.gov>, "kate\_kelly@ios.doi.gov" <kate\_kelly@ios.doi.gov>, "laura.daniel-davis@ios.doi.gov" <laura.daniel-davis@ios.doi.gov>, "mackenzie\_landa@ios.doi.gov" <mackenzie\_landa@ios.doi.gov>, "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>, "matthew\_strickler@ios.doi.gov" <matthew\_strickler@ios.doi.gov>, "melissa\_schwartz@ios.doi.gov" <melissa\_schwartz@ios.doi.gov>, "michael\_martinez@ios.doi.gov" <michael\_martinez@ios.doi.gov>, "leslie\_morgan\_gray@ios.doi.gov" <leslie\_morgan\_gray@ios.doi.gov>, "paniz\_rezaerod@ios.doi.gov" <paniz\_rezaerod@ios.doi.gov>, "rachael\_taylor@ios.doi.gov" <rachael\_taylor@ios.doi.gov>, "oiea@ios.doi.gov" <oiea@ios.doi.gov>, "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "tommy\_beaudreau@ios.doi.gov" <tommy\_beaudreau@ios.doi.gov>, "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>

**Cc:** "Levison, Lara" <LLevison@oceana.org>, "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** [EXTERNAL] heads up RE: end of 5YP comment period (offshore oil & gas leasing) activities

**Date:** Tue, 4 Oct 2022 21:04:45 +0000

**Attachments:** Bike\_Billboards\_small\_file\_-03.jpg; Bike\_Billboards\_small\_file\_-01.jpg; Bike\_Billboards\_small\_file\_-02.jpg

**Inline-Images:** image001.png

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Hi all,

I am writing to share a brief update on some upcoming activities associated with the end of the national OCS oil and gas leasing comment period on Thursday. As you know, Oceana and our many partners are encouraging President Biden and BOEM to finalize a five-year plan with no new leases for offshore oil and gas.

Beginning tomorrow from about 8 a.m. until 4:30 p.m. and similar hours on Thursday, bicycle billboards encouraging President Biden to keep [his campaign promise](#) to end new offshore drilling will be traveling around The White House complex and Department of the Interior.

Additionally, on Thursday Oct 6, 2022, at 1PM we are holding a small, friendly rally at the Northwest corner of Lafayette Square Park to mark the end of the comment period. In addition to Oceana, there will be speakers from Taproot and Healthy Gulf.

Attached images for awareness and we hope the heads up is helpful.

All the best  
Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894


[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

A large offshore oil rig is engulfed in a massive fire, with thick black smoke billowing into the sky. Several support vessels are positioned around the rig, spraying high-pressure water jets to combat the blaze. The scene is set at dusk or dawn, with a dark, overcast sky.

# DIRTY & DANGEROUS OFFSHORE DRILLING IS FUELING THE CLIMATE CRISIS.

Scan Below to Sign the Petition, or Visit [Oceana.org/ActNow](https://oceana.org/ActNow)



 **OCEANA**



# CLEAN ENERGY MEANS JOBS. DIRTY DRILLING MEANS ECONOMIC SHUTDOWNS.

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OCEANA

A photograph showing several workers in white protective suits and respirators, heavily covered in dark oil, working on a beach. The suits have blue reflective stripes. The background shows a clear blue sky and the ocean. The text is overlaid on the center of the image.

# PRESIDENT BIDEN, KEEP YOUR PROMISE. #NoNewLeases FOR OFFSHORE DRILLING.

Scan Below to Sign the Petition, or Visit [Oceana.org/ActNow](https://oceana.org/actnow)

The Oceana logo, featuring a stylized white wave icon to the left of the word "OCEANA" in a bold, white, sans-serif font.

**OCEANA**

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Amanda.Lefton@boem.gov" <Amanda.Lefton@boem.gov>

**Cc:** "Levison, Lara" <LLevison@oceana.org>, "Messmer, Michael" <mmessmer@oceana.org>, "blossom.robinson@boem.gov" <blossom.robinson@boem.gov>, "connie.gillette@boem.gov" <connie.gillette@boem.gov>, "Marissa.Knodel@boem.gov" <Marissa.Knodel@boem.gov>, "oiea@ios.doi.gov" <oiea@ios.doi.gov>, "walter.cruickshank@boem.gov" <walter.cruickshank@boem.gov>, "Cook, Karla D." <Karla.Cook@boem.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "megan.carr@boem.gov" <megan.carr@boem.gov>, "jill.lewandowski@boem.gov" <jill.lewandowski@boem.gov>, "Brown, William Y" <William.Brown@boem.gov>, "Ennis, Jessica A. EOP/CEQ" (b) (6) "Gonzalez-Rothi, Sara R. EOP/CEQ" (b) (6)

**Subject:** [EXTERNAL] thank you letter from coalition on virtual hearing

**Date:** Thu, 13 Oct 2022 20:20:49 +0000

**Attachments:** 10.13.22\_Thank\_You\_Letter\_to\_BOEM\_for\_Virtual\_Hearing.pdf

**Inline-Images:** image001.png

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Hi Amanda –

Writing on behalf of many partners to thank you and your team for adding a virtual opportunity to provide oral testimony on the five-year program.

See attached letter

Thanks again,

Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

D 202.467.1948 | C 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

**Taproot Earth • Oceana • Association of Young Americans • Healthy Ocean Coalition • Rachel Carson Council • Inland Ocean Coalition • Healthy Gulf • Surfrider Foundation • Cook Inletkeeper • Earthjustice • Alaska Wilderness League • Friends of the Earth • League of Conservation Voters • Natural Resources Defense Council • Environment America • Alaska Marine Conservation Council • Sierra Club**

October 13, 2022

Amanda Lefton  
Department of Interior  
Bureau of Ocean Energy Management  
1849 C Street NW  
Washington, DC 20240

Dear Director Lefton:

Thank you for listening to the frontlines in the Gulf and Alaska and adding a virtual opportunity to provide oral testimony on the 2023-2028 Proposed Program for the Outer Continental Shelf. This hearing was an important opportunity for the public to weigh in on a five-year plan that will have direct consequences on our lives and livelihoods. We appreciate the interpretation in multiple languages, as well as extending the hearing to make sure everyone had a chance to be heard.

The outcome of this hearing was clear. Across the country, but especially in the Gulf and Alaska, testimony overwhelmingly called for no new leases for offshore oil and gas drilling. During the seven-hour hearing, there were 86 comments speaking out against new drilling, 54 of which came from frontline communities that stand to suffer the most from the proposed lease sales in the Gulf and Alaska.

On behalf of our millions of members and supporters, we commend your commitment to advancing a public engagement process that offers the voices of impacted communities meaningful opportunities to make their voices heard. Thank you for adding this oral testimony to the federal record.

As you continue your efforts to meet President Biden's climate goals, a final 2023-2028 program with no new leases for offshore oil and gas drilling is a must. Now is the time to act. Protecting our climate, ocean, and coastal economies from dangerous offshore drilling benefits everyone.

Sincerely,

Taproot Earth  
Oceana  
Association of Young Americans  
Healthy Ocean Coalition  
Rachel Carson Council  
Inland Ocean Coalition  
Healthy Gulf  
Surfrider Foundation  
Sierra Club

Cook Inletkeeper  
Earthjustice  
Alaska Wilderness League  
Friends of the Earth U.S.  
League of Conservation Voters  
Natural Resources Defense Council  
Environment America  
Alaska Marine Conservation Council



**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] invitation - federal update, business event

**Date:** Tue, 4 May 2021 14:14:27 +0000

**Inline-Images:** image001.png

---

Haha, sorry to scare you!

**Diane Hoskins** | Campaign Director



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---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, May 4, 2021 8:13 AM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Oh phew...5 minutes is NO PROBLEM. Still happy to take Q&A.

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Sent:** Tuesday, May 4, 2021 10:04 AM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] invitation - federal update, business event

SORRY! It was a typo! 5 mins, but 15 would be great!

**Diane Hoskins** | Campaign Director



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---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Tuesday, May 4, 2021 8:03 AM

**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re: [EXTERNAL] invitation federal update, business event

Oh wow, that's a long time! I will think about putting together a presentation, then. Honestly, I think I only need 15-20 minutes, which leaves plenty of time for Q&A, which I'm happy to do.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, May 4, 2021 9:57 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] invitation - federal update, business event

Thank you, so much!

- 1) Virtual event? Yes
- 2) Length of speaking time? 50mins (or more if you'd like!)
- 3) Open or closed press? Closed press, but would like to have it recorded and shared with business leaders who aren't able to attend live. If this is an issue, we can revisit whether your remarks are recorded.

Also, are you OK with a few questions? Not necessary, but might be nice.

Thanks, Diane

**Diane Hoskins** | Campaign Director



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---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, May 4, 2021 7:55 AM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Hello Diane,

I am starting the process of getting approval to speak. Just a couple of questions:

- 1) Virtual event?
- 2) Length of speaking time?
- 3) Open or closed press?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Monday, May 3, 2021 4:28 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] invitation - federal update, business event

Yes, primarily on offshore oil and gas but some would be happy to hear about offshore wind as well!

Thank you so much!  
Diane

**Diane Hoskins** | Campaign Director



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**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, May 3, 2021 2:07 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Oh, and one point of clarification: by "federal update," I assume you're referring to everything (oil and gas, renewables, minerals), or should there be a specific focus?

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Monday, May 3, 2021 4:04 PM  
**To:** Hoskins, Diane [Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)  
**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Thank you for the invitation, Diane!

I will check internally and get back to you soon

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202 538 2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Monday, May 3, 2021 3:57 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] invitation - federal update, business event

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Hi Marissa,

I hope all is well. I'm reaching out because we'd like to invite you to provide brief remarks during an event that Oceana is coordinating with the business community on May 18 at 7:00pm ET. We're working with the leaders of the Business Alliances for Protecting the Atlantic and Pacific Coasts (BAPAC and BAPPC respectively) as well as the Florida Gulf Coast Business Coalition

They have asked if we could help secure a speaker to provide a federal update and we immediately thought of you. Certainly we've been sharing updates but to have brief remarks from you would be a great draw and of deep interest to the business community. We are also flexible on the date of this event if another day would work better or if you would like to send a video instead of speaking live. This event will be promoted to the memberships of the alliances and, if OK, would be recorded to allow for replay.

Let me know if I can provide additional information and whether you would be able to join for brief remarks on the leasing pause and general federal update.

Thanks for considering this in advance,  
Diane

**Diane Hoskins** | Campaign Director



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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] invitation - federal update, business event

**Date:** Tue, 4 May 2021 22:57:56 +0000

**Inline-Images:** image001.png

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Thank you!

**Diane Hoskins** | Campaign Director



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---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, May 4, 2021 4:56 PM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] invitation - federal update, business event

That should be fine, thanks for the update.

Marissa Knodel

Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Sent:** Tuesday, May 4, 2021 6:54 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] invitation - federal update, business event

Hi Marissa,

We held a planning call with the business leaders this afternoon and they are very excited to hear you may be able to speak. Unfortunately there was a scheduling error for two of the business leaders and we are now looking at a new date, TBD -likely the first week of June.

I will keep you posted on the date ASAP but wanted to let you know.

Sorry for the change and thanks in advance,

Diane

**Diane Hoskins** | Campaign Director



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[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, May 4, 2021 8:13 AM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Oh phew...5 minutes is NO PROBLEM. Still happy to take Q&A.

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, May 4, 2021 10 04 AM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE [EXTERNAL] invitation federal update, business event

SORRY! It was a typo! 5 mins, but 15 would be great!

**Diane Hoskins** | Campaign Director



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[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Tuesday, May 4, 2021 8 03 AM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re [EXTERNAL] invitation federal update, business event

Oh wow, that's a long time! I will think about putting together a presentation, then. Honestly, I think I only need 15-20 minutes, which leaves plenty of time for Q&A, which I'm happy to do.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, May 4, 2021 9:57 AM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE [EXTERNAL] invitation federal update, business event

Thank you, so much!

- 1) Virtual event? Yes
  - 2) Length of speaking time? 50mins (or more if you'd like!)
  - 3) Open or closed press? Closed press, but would like to have it recorded and shared with business leaders who aren't able to attend live If this is an issue, we can revisit whether your remarks are recorded
- Also, are you OK with a few questions? Not necessary, but might be nice  
Thanks, Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036  
D 202.467.1948 | C 301.672.0894  
[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

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Peace,

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Thank you so much!  
Diane

**Diane Hoskins** | Campaign Director

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Marissa Knodel

Advisor, Bureau of Ocean Energy Management

202 538 2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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I will check internally and get back to you soon.

Peace,

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They have asked if we could help secure a speaker to provide a federal update and we immediately thought of you. Certainly we've been sharing updates but to have brief remarks from you would be a great draw and of deep interest to the business community. We are also flexible on the date of this event if another day would work better or if you would like to send a video instead of speaking live. This event will be promoted to the memberships of the alliances and, if OK, would be recorded to allow for replay.

Let me know if I can provide additional information and whether you would be able to join for brief remarks on the leasing pause and general federal update.

Thanks for considering this in advance,  
Diane

Diane Hoskins | Campaign Director



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**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] invitation - federal update, business event

**Date:** Fri, 14 May 2021 13:28:54 +0000

**Attachments:** DRILL-21-0006-Business-Alliance-Roundtable-Event-Graphics\_Invitation.gif

**Inline-Images:** image001.png

---

Thank you! Yes, 1-hr should be totally sufficient and we'll have you near the beginning so you should be complete much earlier. Attaching the invite that will be circulated to the businesses.

Hope you have a great weekend, Diane

**Diane Hoskins** | Campaign Director



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Does the new date/time work?

Thank in advance--

Diane

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That should be fine, thanks for the update.

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Advisor, Bureau of Ocean Energy Management

202.538.2415

[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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Hi Marissa,

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I will keep you posted on the date ASAP but wanted to let you know.

Sorry for the change and thanks in advance,

Diane

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SORRY! It was a typo! 5 mins, but 15 would be great!

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JUNE 1, 2021

2:00 PM EST

NATIONAL BUSINESS COALITION ROUNDTABLE:

# Protecting Our Coast and Creating a Thriving Clean Coastal Economy



Join us along with **Congressman Mike Levin**, **Senator Ed Markey**, and ocean advocacy business leaders for a roundtable discussion via Zoom that will include an update from local and federal officials, including **a representative from the Biden administration**, on plans regarding the future of offshore oil and gas drilling. Business owners from across the country will share personal stories and discuss the importance of protecting the national clean coast economy.

*This event is nonpartisan. The participation of any political candidate should not be considered an endorsement.*





**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** Re: [EXTERNAL] invitation - federal update, business event

**Date:** Fri, 14 May 2021 15:03:33 +0000

**Inline-Images:** image001.png

---

Great news! Thank you!

Get [Outlook for iOS](#)

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Friday, May 14, 2021 8:05:03 AM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Excellent, thanks Diane! The event was approved, so I'm good to go -- excited to be sharing screen time with Rep. Levin!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

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[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

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**From:** Knodel, Marissa S [Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)  
**Sent:** Tuesday, May 4, 2021 7:55 AM  
**To:** Hoskins, Diane [Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)  
**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Hello Diane,

I am starting the process of getting approval to speak. Just a couple of questions

1) Virtual event?  
2) Length of speaking time?  
3) Open or closed press?

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202 538 2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Monday, May 3, 2021 4:28 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] invitation - federal update, business event

Yes, primarily on offshore oil and gas but some would be happy to hear about offshore wind as well!

Thank you so much!  
Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036  
D 202.467.1948 | C 301.672.0894  
[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, May 3, 2021 2:07 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re: [EXTERNAL] invitation - federal update, business event

Oh, and one point of clarification: by "federal update," I assume you're referring to everything (oil and gas, renewables, minerals), or should there be a specific focus?

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Sent:** Monday, May 3, 2021 4:04 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re [EXTERNAL] invitation federal update, business event

Thank you for the invitation, Diane!

I will check internally and get back to you soon.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Monday, May 3, 2021 3:57 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] invitation - federal update, business event

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Hi Marissa,

I hope all is well I'm reaching out because we'd like to invite you to provide brief remarks during an event that Oceana is coordinating with the business community on May 18 at 7:00pm ET. We're working with the leaders of the Business Alliances for Protecting the Atlantic and Pacific Coasts (BAPAC and BAPPC respectively) as well as the Florida Gulf Coast Business Coalition.

They have asked if we could help secure a speaker to provide a federal update and we immediately thought of you. Certainly we've been sharing updates but to have brief remarks from you would be a great draw and of deep interest to the business community. We are also flexible on the date of this event if another day would work better or if you would like to send a video instead of speaking live. This event will be promoted to the memberships of the alliances and, if OK, would be recorded to allow for replay.

Let me know if I can provide additional information and whether you would be able to join for brief remarks on the leasing pause and general federal update.

Thanks for considering this in advance,  
Diane

**Diane Hoskins** | Campaign Director



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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "Klein, Elizabeth A" <elizabeth\_klein@ios.doi.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] meeting request

**Date:** Tue, 24 Jan 2023 19:40:28 +0000

**Inline-Images:** image001.png

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Hi Steve, Liz, and Marissa –

I am reaching out on behalf some of our key partners to request a meeting to some thoughts related to Administrative opportunities for offshore oil and gas leasing.

In addition to Oceana, the group includes representatives from Center for American Progress, EarthJustice, League of Conservation Voters, NRDC, Ocean Conservancy, Sierra Club, and Ocean Defense Initiative.

Might we find time for our group to share some ideas with you three?

Thanks in advance,

Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)



**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Klein, Elizabeth A" <Elizabeth.Klein@boem.gov>, "Feldgus, Steven H" <steve\_feldgus@ios.doi.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Cc:** "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Foreman, Jennafer (Jenna)" <Jennafer.Foreman@boem.gov>, "Vang, Kathy" <Kathy.Vang@boem.gov>, "Sow, Thierno" <Thierno.Sow@boem.gov>

**Subject:** RE: [EXTERNAL] following up RE meeting request

**Date:** Tue, 31 Jan 2023 21:51:46 +0000

**Inline-Images:** image001.png

---

Totally understand! Thank you!

Diane

---

**From:** Klein, Elizabeth A <Elizabeth.Klein@boem.gov>

**Sent:** Tuesday, January 31, 2023 4:49 PM

**To:** Hoskins, Diane <Dhoskins@oceana.org>; Feldgus, Steven H <steve\_feldgus@ios.doi.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Cc:** Farmer, Isis U <Isis.Farmer@boem.gov>; Foreman, Jennafer (Jenna) <Jennafer.Foreman@boem.gov>; Vang, Kathy <Kathy.Vang@boem.gov>; Sow, Thierno <Thierno.Sow@boem.gov>

**Subject:** RE: [EXTERNAL] following up RE meeting request

Hi Diane,

Thank you for the reminder. We've been fielding a (to me) shocking number of meeting requests! This one is on the list, and folks will be getting back soon to try and find a time.

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Sent:** Tuesday, January 31, 2023 4:36 PM

**To:** Feldgus, Steven H <[steve\\_feldgus@ios.doi.gov](mailto:steve_feldgus@ios.doi.gov)>; Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>; Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** [EXTERNAL] following up RE meeting request

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Hi there-

Writing to flag this request.

Perhaps we could find 30-mins the week of the 13<sup>th</sup>?

Thanks in advance!

Diane

---

**From:** Hoskins, Diane

**Sent:** Tuesday, January 24, 2023 2:43 PM

**To:** [steve\\_feldgus@ios.doi.gov](mailto:steve_feldgus@ios.doi.gov); [elizabeth.klein@boem.gov](mailto:elizabeth.klein@boem.gov); Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: meeting request

Hi Steve, Liz, and Marissa –

I am reaching out on behalf of some of our key partners to request a meeting to share some thoughts related to Administrative opportunities for offshore oil and gas leasing.

In addition to Oceana, the group includes representatives from Center for American Progress, EarthJustice, League of Conservation Voters, NRDC, Ocean Conservancy, Sierra Club, and Ocean Defense Initiative.

Might we find time for our group to share some ideas with you three?

Thanks in advance,

Diane

**Diane Hoskins** | Campaign Director



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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "Klein, Elizabeth A" <elizabeth.klein@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Cc:** "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Foreman, Jennafer (Jenna)" <Jennafer.Foreman@boem.gov>, "Vang, Kathy" <Kathy.Vang@boem.gov>

**Subject:** [EXTERNAL] offshore meeting

**Date:** Fri, 17 Feb 2023 17:22:02 +0000

**Attachments:** Proposal\_to\_Advance\_Conservation\_Goals\_in\_Public\_Waters.pdf

**Inline-Images:** image001.png

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Dear Steve, Liz, and Marissa—

We're looking forward to our meeting next Friday.

Attached is some background on the ideas we want to discuss next week.

Since the meeting time is short, we propose the following agenda--

Welcome/Quick introductions

Framing the proposals

Questions from DOI/BOEM and discussion

Final thoughts and next steps

I will share final attendees and bios next week but the organizations represented will include--

Oceana

LCV

NRDC

Earthjustice

Ocean Defense Initiative

Center for American Progress

Ocean Conservancy

We may also have representatives from Cook Inlet Keeper, Healthy Gulf, and Taproot Earth - not confirmed.

If you have any questions, please let me know. Thank you so much for your time.

Diane

---

**From:** Vang, Kathy <Kathy.Vang@boem.gov>

**Sent:** Thursday, February 16, 2023 6:08 PM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

**Cc:** Farmer, Isis U <Isis.Farmer@boem.gov>; Foreman, Jennafer (Jenna) <Jennafer.Foreman@boem.gov>

**Subject:** RE: [EXTERNAL] RE: meeting request

I will send over once confirmed.

**Kathy Vang**

Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Thursday, February 16, 2023 1:57 PM  
**To:** Vang, Kathy <[KathyVang@boem.gov](mailto:KathyVang@boem.gov)>  
**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] RE: meeting request

Will do! Can you confirm the DOI/ BOEM attendees?

---

**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Thursday, February 16, 2023 5:56 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] RE: meeting request

Sounds good.

In addition to the agenda and list of attendees, can you please include short bios?

Thanks!

**Kathy Vang**

Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Thursday, February 16, 2023 1:51 PM  
**To:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] RE: meeting request

Thank you.

OK, let's nail down: Friday, February 24: 3:30-4p ET (will need to be virtual)

I will share an agenda and list of attendees by Tuesday.

---

**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Thursday, February 16, 2023 5:49 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] RE: meeting request

Hi Diane,

We will need to pull the Friday, Feb 24<sup>th</sup> 2:30-3:30p availability.

These times are still available:

Tuesday, February 21 3 30 4p ET

Thursday, February 23: 3-3:30p ET

Friday, February 24 3 30 4p ET (will need to be virtual)

**Kathy Vang**

Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

---

**From:** Hoskins, Diane [Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)

**Sent:** Thursday, February 16, 2023 6:49 AM

**To:** Vang, Kathy [KathyVang@boem.gov](mailto:KathyVang@boem.gov)

**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>

**Subject:** Re [EXTERNAL] RE meeting request

Thanks I'm coordinating with the group and aiming to get back to you by COB

Thank you!

Diane

---

**From:** Vang, Kathy [KathyVang@boem.gov](mailto:KathyVang@boem.gov)

**Sent:** Wednesday, February 15, 2023 5:50:03 PM

**To:** Hoskins, Diane [Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)

**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>

**Subject:** RE [EXTERNAL] RE meeting request

Hi Diane,

Please see below for availability next week for a 30 minute meeting

Tuesday, February 21: 3:30-4p ET

Thursday, February 23 3 3 30p ET

Friday, February 24: 2:30-4p ET (will need to be virtual)

**Kathy Vang**

Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

---

**From:** Hoskins, Diane [Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)

**Sent:** Wednesday, February 15, 2023 1:57 AM

**To:** Vang, Kathy [KathyVang@boem.gov](mailto:KathyVang@boem.gov)

**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** Re [EXTERNAL] RE meeting request

Hi Kathy, we are flexible It would be great to do in person if we can (but not necessary) schedule this week or next but if we look beyond feb 24 it will need to be virtual.  
Thank you!

---

**From:** Vang, Kathy <[Kathy.Vang@boem.gov](mailto:Kathy.Vang@boem.gov)>  
**Sent:** Tuesday, February 14, 2023 1:32:11 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Cc:** Farmer, Isis U <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>; Foreman, Jennafer (Jenna) <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>  
**Subject:** RE: [EXTERNAL] RE: meeting request

Hi Diane,

I'm working on getting this scheduled.  
Are you requesting for an in person or virtual meeting?

**Kathy Vang**

Executive Assistant  
Office of the Director  
Bureau of Ocean Energy Management  
U.S. Department of the Interior

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, January 24, 2023 2:43 PM  
**To:** Feldgus, Steven H <[steve\\_feldgus@ios.doi.gov](mailto:steve_feldgus@ios.doi.gov)>; Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>; Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] RE meeting request

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Hi, I am resending this with Liz's new email.  
Thanks, Diane

---

Hi Steve, Liz, and Marissa

I am reaching out on behalf some of our key partners to request a meeting to some thoughts related to Administrative opportunities for offshore oil and gas leasing

In addition to Oceana, the group includes representatives from Center for American Progress, EarthJustice, League of Conservation Voters, NRDC, Ocean Conservancy, Sierra Club, and Ocean Defense Initiative

Might we find time for our group to share some ideas with you three?

Thanks in advance,

Diane

**Diane Hoskins** | Campaign Director



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## **PROPOSAL TO ADVANCE CLIMATE AND CONSERVATION GOALS IN PUBLIC WATERS THROUGH OFFSHORE LEASING REFORMS**

We urge the Biden administration to offer the next five-year Outer Continental Shelf (OCS) leasing program with no new leases. The Biden administration has an additional opportunity to ensure that the management of the OCS does not undermine its national climate and environmental justice commitments. The United States must ensure that any leases in the OCS - owned commonly by all Americans - prioritizes a clean energy future, protects the environment, ensures worker safety, and provides a fair return to taxpayers.

We propose that DOI and BOEM use its existing authority and discretion to advance the administration's goals on climate, safety, and the environment at every stage of the oil and gas process, from leasing through development. Our proposals include measures to ensure that companies operating on the OCS will do so responsibly, heighten protections for vulnerable marine mammals and ecosystems, and secure payment of fair market value for leases. We also propose that, consistent with the language of the Inflation Reduction Act (IRA), DOI include a "climate screen" in its planned oil and gas leasing regulations to require that leases can only be issued or developed when doing so is consistent with U.S. climate goals.

### **BEFORE LEASE SALES ARE HELD**

**Heighten competition to ensure a fair return from any lands leased-** BOEM establishes a minimum bonus bid prior to each lease sale. Since 2011, BOEM has used minimum bonus bids of \$25/acre for shallow water leases (<400 meters) and \$100/acre for deep water leases (400+ meters). Raising these minimum bid levels would positively affect OCS leasing by increasing competition on more appealing OCS blocks while reducing bidding on marginal blocks less likely to be developed, as BOEM observed in the 2023-2028 Proposed Five-Year Program.<sup>1</sup> Similarly, a BOEM analysis conducted in 2010 found that raising minimum bid levels by a factor of five would increase bid amounts on some tracts, decrease bidding on marginal tracts that would typically only receive a single bid, and have an insignificant effect on money raised through bids and royalties.<sup>2</sup>

---

<sup>1</sup> 2023-2028 Proposed Five-Year Program, at 9-22 (July 2022) (raising the minimum bid may have a positive impact on competition by "serv[ing] to narrow bidder interest to the more valuable blocks offered in the lease sale, thereby enhancing competition on the better blocks and encouraging bidders to focus their bidding on those blocks that they are most likely to explore and develop.")

<sup>2</sup> OCS Study BOEMRE 2011-014, Final Report: Policies to Affect the Pace of Leasing and Revenues in the Gulf of Mexico Summary Report (Nov. 2010), <https://www.boem.gov/oil-gas-energy/energy-economics/economics-division-studies>.



By raising minimum bonus bids, BOEM could also account for the option value<sup>3</sup> associated with offshore leasing.<sup>4</sup> When BOEM issues a lease, the agency temporarily transfers option value to the lessee. As the agency explained in the 2023-2028 Proposed Five-Year Program, increasing the minimum bonus bid would result in fewer OCS blocks receiving bids.<sup>5</sup> If these “passed-over blocks” are undervalued, then offering them at a subsequent lease sale could “generate option value and higher bonus bids for the retained blocks.”<sup>6</sup> Ultimately, by accounting for option value and increasing competition on the most attractive OCS blocks, raising the minimum bid would help ensure that the oil and gas industry pays the full external cost of leasing and reduce the externalized costs passed to taxpayers.

**Use stricter standards for qualifying bidders and accepting bids** - A “Fitness to Operate” standard would weed out companies with poor environmental and safety records. Making the ability to purchase new leases contingent on finishing decommissioning operations would similarly disqualify negligent companies while encouraging better practices. The Department of the Interior committed to developing a “fitness to operate” standard in its Nov. 2021 report.<sup>7</sup> It should follow through by establishing and codifying strict standards that will eliminate any would-be operators or lease-holders with poor safety, environmental, or reclamation histories, and would ensure all operators and lease-holders have the resources necessary to meet safety, environmental and financial responsibilities, including decommissioning. A potential fitness-to-operate standard for offshore oil and gas operators could include:

- A number of safety and environmental violations permitted (e.g. three ‘strikes’) before an operator is suspended from purchasing additional leases, has existing leases canceled, or is debarred. This type of standard would likely have to weigh the gravity of each accident, such that minor infractions are not counted to the same degree as major spills. This type of standard could also include the potential for reinstatement if a violating operator were to demonstrate fitness through an improved safety plan that is deemed to have resolved the underlying causes of the prior violation(s).
- A requirement that an operator provide a comprehensive safety plan, even without any history of violations, that the BOEM deems sufficient to prevent major spills or discharges. This standard could build upon the framework conceptualized by a team of Western Australia University researchers in 2013, which suggests that an operator’s overall safety capability should be assessed by separately measuring the human, organizational, and social (i.e. “safety culture”) capacity of a given operator.<sup>8</sup>

---

<sup>3</sup> Option value is the value gained by waiting to obtain more information before making a decision. Until BOEM issues a lease, the federal government retains the option to develop the oil and gas within that area. Jayni Foley Hein, *Harmonizing Preservation and Production*, Institute for Policy Integrity, at 13 (2015), <https://policyintegrity.org/publications/detail/harmonizing-preservation-and-production/>.

<sup>4</sup> Hein, *Harmonizing Preservation and Production*, at 13-17; see also Rachel Rothschild & Max Sarinsky, *Toward Rationality in Oil and Gas Leasing*, Institute for Policy Integrity, at 26-29 (2021), <https://policyintegrity.org/publications/detail/toward-rationality-in-oil-and-gas-leasing>.

<sup>5</sup> 2023-2028 Proposed Five-Year Program, at 9-22 (July 2022).

<sup>6</sup> *Id.*

<sup>7</sup> Report on the Federal Oil and Gas Leasing Program, Prepared in Response to Executive Order 14008, U.S. Department of the Interior, 12 (Nov. 2021).

<sup>8</sup> See Mark A. Griffin et, al, *A conceptual framework and practical guide for assessing fitness-to-operate in the offshore oil and gas industry*, 68 *Accident Analysis and Prevention* 156 (2014).

## CONDITIONS FOR LEASE SALES TO MOVE FORWARD

**Enhance protections for Rice’s whale and other marine mammals** - Offshore oil and gas activities harm marine wildlife not only through oil spills, but by increasing the risk of vessel collisions and introducing high-intensity noise to the marine environment. These activities pose a particular threat to the continued survival of the endangered Rice’s whale—the only great whale resident to the Gulf of Mexico and, *with fewer than 100 individuals*, one of the world’s most endangered marine mammals. The following proposals would enhance protections for Rice’s whale and other species in the Gulf. Except for the exclusion of habitat from new leasing and for the restriction on anchoring and the placement of structures in Rice’s whale habitat under new leases (bullets 1 and 5 below), BOEM should implement these measures through conditions of approval on new permits and plans, along with a notice to lessees (NTL) and lease stipulations for all new leases that memorialize these protections. By issuing an NTL, BOEM can ensure that these measures apply to all OCS operations approved after NTL issuance, not only those under new leases.

- **Prohibit new leasing throughout the full habitat of Rice’s whale.** A recent five-year NOAA study (“RESTORE study”) demonstrated that Rice’s whale’s habitat extends from an area in the upper depths of the De Soto Canyon in the eastern Gulf, along the continental shelf break between the 100m and 400m isobaths, through waters off Louisiana and Texas in the central and western Gulf.<sup>9</sup> This study represents the best available scientific information on Rice’s whale habitat, and BOEM deconflicted for this same habitat in identifying offshore wind lease areas in the central and western Gulf.<sup>10</sup> Similarly, BOEM should exclude this area—and a 10-kilometer (or greater) buffer around it, consistent with the agency’s treatment of the whale’s eastern Gulf habitat in LS 257—from all new oil and gas leasing. Because the whale’s habitat is so narrowly defined, such an exclusion would still easily allow BOEM to meet the 60-million-acre threshold for lease sales in the Inflation Reduction Act.
- **Extend ship-strike prevention measures through Rice’s whale’s full habitat range.** Rice’s whales are particularly vulnerable to collisions with vessels, with at least two whales struck by ships in recent years. BOEM currently requires vessels to follow ship-strike prevention measures in Rice’s whale habitat in the eastern Gulf, including a 10-knot speed limit and a prohibition on transits at night and during low-visibility conditions.<sup>11</sup> BOEM should extend existing ship-strike prevention measures to the entirety of the species’ habitat, as identified by the RESTORE study.

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<sup>9</sup> NOAA provides a detailed overview of the study on its website. See NOAA FISHERIES, *Trophic Interactions and Habitat Requirements of Gulf of Mexico Rice’s Whales*, <https://www.fisheries.noaa.gov/southeast/endangered-species-conservation/trophic-interactions-and-habitat-requirements-gulf-mexico>; see also M.S. Soldevilla et al., *Rice’s whale in the northwestern Gulf of Mexico: Call variation and occurrence beyond the known core habitat*, 48 *Endang. Spec. Res.* 155 (2022) (paper from RESTORE Act study, documenting persistent occurrence of Rice’s whale within the 100-400m isobaths). The area is also defined by NOAA biologists in a published paper that incorporates some of the study’s findings. Nicholas A. Farmer et al., *Modeling protected species distributions and habitats to inform siting and management of pioneering ocean industries: A case study for Gulf of Mexico aquaculture*, 17(9) *PLoS ONE* e0267333 (2022).

<sup>10</sup> See Memorandum from Michael Celata, BOEM, to Amanda Lefton, BOEM (Jul. 20, 2022).

<sup>11</sup> E.g., BOEM, Final Notice of Sale: Gulf of Mexico Oil and Gas Lease Sale 257 Lease Stipulations at stip. 4(B)(1) (2021).

- **Require use of best available noise-reduction technology for deep-penetration seismic surveys.** According to a Cornell University study, noise from seismic surveys dominates the acoustic environment of the Gulf region, chronically elevating noise levels in high-value marine habitats.<sup>12</sup> BOEM should require use of best available noise-reduction technology, such as modified airguns, and other methods, as well as compliance with any noise output standards that BOEM may set in the future, for all deep-penetration seismic surveys taking place in the northern Gulf. Such methods, while presently available and substantial in their noise reduction, are seldom employed by industry in the region. This measure would provide immediate, significant benefits for every cetacean species in the Gulf, including the Rice’s whale and the endangered sperm whale, as well as other marine wildlife.
- **Restrict deep-penetration seismic surveys throughout Rice’s whale habitat.** Acoustic disturbance from seismic surveys has large-scale effects on marine mammals and particularly on baleen whales like Rice’s whale, interfering with foraging and other vital behavior.<sup>13</sup> BOEM should restrict deep-penetration seismic surveys, such that noise from such surveys does not reach or exceed sound pressure levels of 140 dB (re 1 micPa (RMS))<sup>14</sup> anywhere in Rice’s whale habitat, as that habitat is defined in the RESTORE study.
- **Establish restrictions on permitting of other activities in Rice’s whale habitat for new leases.** Through lease stipulation, BOEM should prohibit anchoring and the placement of new structures, drilling rigs, and pipelines in Rice’s whale habitat, as that habitat is defined in the RESORE study, as a condition on all new leases. It is likely, as NOAA stated in listing the whale as endangered, that oil and gas development has contributed to the constriction of the species’ range.<sup>15</sup> These measures would prevent further damage to its limited habitat.
- **Require that industry vessels operating in Rice’s whale habitat meet quiet-vessel standards.** It is well established that vessel noise can disrupt baleen whale behavior, mask their communications, and induce chronic stress.<sup>16</sup> To reduce harmful noise impacts, BOEM should require that all industry vessels operating in or transiting through Rice’s whale habitat receive a quiet-vessel notation from an IACS-member ship-classification society, and that they comply with any vessel-quieting standards that BOEM may establish in future.

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<sup>12</sup> Bobbi J. Estabrook et al., *Widespread spatial and temporal extent of anthropogenic noise across the northeastern Gulf of Mexico shelf ecosystem*, 30 *Endang. Spec. Res.* 267-82 (2016)

<sup>13</sup> See, e.g., Susanna B. Blackwell et al., *Effects of Airgun Sounds on Bowhead Whale Calling Rates: Evidence for Two Behavioral Thresholds*, *PLoS One* (2015); Castellote et al., *Acoustic and behavioural changes by fin whales (Balaenoptera physalus) in response to shipping and airgun noise*, 147 *Biol. Conservation* 115 (2012); Salvatore Cerchio et al., *Seismic Surveys Negatively Affect Humpback Whale Singing Activity off Northern Angola*, 9(3) *PLoS One* e86464 (2014).

<sup>14</sup> This is the threshold at which species “take” begins according to the standard presently applied by NMFS under the Marine Mammal Protection Act.

<sup>15</sup> 84 Fed. Reg. 15,446, 15,459, 15,460, 15,463-64, 15474-75 (Apr. 15, 2019); see also Patricia E. Rosel et al., *Status Review of Bryde’s Whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act* (2016) (NOAA Tech. Memo. NMFS-SEFSC-692).

<sup>16</sup> See, e.g., Hannah B. Blair et al., *Evidence for ship noise impacts on humpback whale foraging behaviour*, 12 *Biol. Lett.* (2016); Danielle Cholewiak et al., *Communicating amidst the noise: modeling the aggregate influence of ambient and vessel noise on baleen whale communication space in a national marine sanctuary*, 36 *Endang. Spec. Res.* 59 (2018); Jennifer Tennessen & Susan Parks, *Acoustic propagation modeling indicates vocal compensation in noise improves communication range for North Atlantic right whales*, 30 *Endang. Spec. Res.* 225 (2016); Rosalind M. Rolland et al., *Evidence that ship noise increases stress in right whales*, 279 *Proc. Royal Soc’y B* 2363 (2012).

### **Revise regulations to ensure catastrophic incidents will be analyzed in environmental review -**

Before the *Deepwater Horizon*, federal regulators were not required to analyze lower-probability, high-risk events. For example, environmental assessments for proposed exploration activities in the Beaufort and Chukchi Seas explained that an extremely large spill from a blowout was “not a reasonably foreseeable event” and therefore was not analyzed as part of the assessment’s “worst-case scenario.”<sup>17</sup> The environmental assessments instead reviewed the potential effects of a small, 48-barrel fuel transfer spill<sup>18 19</sup>. After the *Deepwater Horizon* tragedy, CEQ recommended that BOEM better integrate information on the environmental consequences of a catastrophic oil spill into its NEPA documents, noting that “BOEM should identify potentially catastrophic environmental consequences and accurately assess them as part of its decision making.”<sup>20</sup> Likewise, the National Commission recommended that BOEM “incorporate the ‘worst-case scenario’ calculations from industry oil spill response plans into NEPA documents and other environmental analyses or reviews” to inform the agency’s “estimates for potential oil spill situations in its environmental analyses.”<sup>21</sup>

BOEM should revise its regulations to codify the requirement to analyze relatively low-probability, high-risk events as “effects of the action” under NEPA and the ESA to help ensure that the agency adequately accounts for the risks from these events and that the agency and other stakeholders are prepared to respond. In doing so, the agency should expansively define the assessment to encompass not only certain volume thresholds considered to be “large” or “catastrophic,” but also spills that may have catastrophic effects on the environment because of local conditions or proximity to sensitive habitats, (e.g., the Exxon Valdez spill was 260,000 barrels but had catastrophic effects).

**Exclude the entire Flower Garden Banks National Marine Sanctuary (FGBNMS) from leasing –** In the proposed notice of sale for Lease Sale 259, BOEM proposes to exclude from leasing whole and partial blocks in the FGBNMS “as of the July 2008 *Memorandum on Modification of the Withdrawal of Certain Areas of United States Outer Continental Shelf from Leasing Disposition*.”<sup>22</sup> This exclusion does not cover the 2021 FGBNMS expansion, which added fourteen reefs and banks to the sanctuary and includes essential habitat for fish and habitat for endangered and threatened wildlife.<sup>23</sup> To protect this vital marine

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<sup>17</sup> MMS, Environmental Assessment: Shell Offshore Inc. 2010 Outer Continental Shelf Lease Exploration Plan for Camden Bay, Alaska, Beaufort Sea Leases A-2 (2009); MMS, Environmental Assessment: Shell Gulf of Mexico, Inc. 2010 Exploration Drilling Program, Burger, Crackerjack, and SW Shoebill Prospects Chukchi Sea Outer Continental Shelf A-2 (2009).

<sup>18</sup> See, e.g., MMS, Environmental Assessment: Shell Gulf of Mexico, Inc. 2010 Exploration Drilling Program, Burger, Crackerjack and SW Shoebill Prospects Chukchi Sea Outer Continental Shelf A-2, at 31-32.

<sup>19</sup> BOEM did incorporate a “very large oil spill” risk analysis in its supplemental EISs for Chukchi Sea Lease Sale 193. See BOEM, Chukchi Sea Planning Area, Oil and Gas Lease Sale 193 In the Chukchi Sea, Alaska, Final Second Supplemental Environmental Impact Statement, Sec. 4.4 (Feb. 2015); see also BOEM, Final Supplemental Environmental Impact Statement, Oil and Gas Lease Sale 193, Chukchi Sea Planning Area, App. D (2011).

<sup>20</sup> Council on Environmental Quality, Report Regarding the Minerals Management Service’s National Environmental Policy Act Policies, Practices, and Procedures as They Relate to Outer Continental Shelf Oil and Gas Exploration and Development, 26-29 (2010).

<sup>21</sup> National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, 267 (2011).

<sup>22</sup> BOEM, Proposed Notice of Sale for Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sale 259 (2022), at 3-4, <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Proposed-NOS-259.pdf>.

<sup>23</sup> NOAA, *Flower Garden Banks National Marine Sanctuary Triples in Size* (Jan. 2021), <https://sanctuaries.noaa.gov/news/jan21/flower-garden-banks->

area from the impacts of oil and gas activities, BOEM should exclude the entire FGBNMS from leasing in all future Gulf of Mexico lease sales. The agency should also update its Topographic Features lease stipulation by establishing No-Activity Zones (NAZs) with associated buffer 4-Mile Zones around relevant banks of the expanded FGBNMS.<sup>24</sup>

**Protect topographic features with sensitive biological habitat** – BOEM should exclude from leasing all whole or partial blocks containing features that are currently protected by the “Topographic Features” lease stipulation and NTL No. 2009-G39 (“Biologically-Sensitive Underwater Features and Areas”). In the event these important features are not excluded from leasing as we recommend, BOEM should increase the buffer zones provided for in the “Topographic Features” lease stipulation and NTL No. 2009-G39 to a minimum of 1 mile for discharge of cuttings and drilling fluids and 1000 meters for bottom-disturbing activities to protect corals from sediment plumes. Additionally, BOEM should expand the “Topographic Features” lease stipulation and NTL No. 2009-G39 to protect low relief features that host vulnerable mesophotic coral communities based on the best available science, as proposed by Nuttall and co-authors (2022) in a NOAA-BOEM collaborative study.<sup>25</sup> The agency should designate such areas containing low relief features as no activity zones (NAZ) where applicable. In addition, BOEM should change the definition of “potentially sensitive biological features,” which currently includes features “that are of moderate to high relief (about 8 feet or higher)” to include features “of low relief (about 1 foot or higher).”<sup>26</sup>

**Improve financial assurance requirements to ensure lessees and operators meet decommissioning obligations** – Lessees and operators are required to provide financial assurances for their obligation to decommission oil and gas wells. Nevertheless, BSEE estimates that the liability for orphaned infrastructure on the OCS is approximately \$65 million. According to the Department of Interior’s 2021 report, BOEM and BSEE are working to improve financial assurance requirements “to better manage the risks associated with industry activities on the OCS.”<sup>27</sup> The agencies should issue a notice to lessees (NTL) memorializing improved financial assurance requirements as soon as possible.

## LEASE STIPULATIONS

The following mitigation measures should be included as lease stipulations in upcoming lease sales.

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[expansion.html#:~:text=Flower%20Garden%20Banks%20National%20Marine%20Sanctuary%20has%20been%20expanded%20from,the%20sanctuary's%20original%20three%20banks.](#)

<sup>24</sup> BOEM, Proposed Notice of Sale for Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sale 259: Lease Stipulations (“Lease Stipulation No. 5: Topographic Features”) (2022), <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Proposed-NOS-259-Lease-Stipulations.pdf>.

<sup>25</sup> Marissa Faye Nuttall et al., *Do Oil and Gas Lease Stipulations in the Northwestern Gulf of Mexico Need Expansion to Better Protect Vulnerable Coral Communities? How Low Relief Habitats Support High Coral Biodiversity*, *Front. Marine Sci.* 8:780248 (2022).

<sup>26</sup> Minerals Management Service, *Biologically-Sensitive Underwater Features and Areas*, NTL No. 2009-G39, at 2 (2010), <https://www.boem.gov/sites/default/files/regulations/Notices-To-Lessees/2009/09-G39.pdf>.

<sup>27</sup> Dept. of Interior, Report on the Federal Oil and Gas Leasing Program: Prepared in Response to Executive Order 14008, at 12 (Nov. 2021), <https://www.doi.gov/sites/doi.gov/files/report-on-the-federal-oil-and-gas-leasing-program-doi-eo-14008.pdf>.

**Require that all lessees have the capability to deploy the full range of Source Control and Containment Equipment (SCCE) to control or contain a blowout** - All eight SCCE requirements listed in 30 C.F.R. 250.462(b)(1-8) should be mandatory for all lessees.

**Require cement evaluation logs for complex wells and wells in environmentally sensitive locations** - Cement evaluation logs should be required for all offshore wells, and, in particular, for complex wells or wells in environmentally sensitive locations, to determine cement placement and quality and to verify cement repairs.

**Prohibit the use of a blowout preventer (BOP) that is under investigation** - Using a BOP that is under mandatory BSEE-required investigation should be prohibited.

**Exploration, Development, and Production Mitigating Measures** - The following mitigation measures listed in the 2017-2022 GOM Multisale EIS should be *mandatory* lease stipulations:

- **Using Ultra-Low Sulfur Content Fuel.**
- **Stack testing** to verify emission limits are met.
- **Production curtailment** during sulfur recovery unit shutdown.
- **Anchoring approval** for reef protection.
- **Zero discharge** (no muds or cutting discharged).
- **Pipeline corrosion inspection.**
- **Protection** of hard bottoms, pinnacles, and sensitive **biological features.**

**Methane rules** - Recent studies have shown that existing offshore drilling operations in the Gulf of Mexico emit more than double EPA’s previous methane emissions estimates.<sup>28</sup> In June 2022, the Inspector General (IG) found that an offshore company was exceeding venting and flaring requirements, concealed its violations, and manipulated its reporting.<sup>29</sup> The IG reported, “one facility reported venting 36 MCF of gas each day for a period of nearly 2 years, regardless of the production volumes reported. Such consistency is unlikely because gas amounts would naturally fluctuate along with oil production.” BOEM should consider utilizing its waste prevention and/or “necessary and proper” rulemaking authority under OCSLA to restrict venting and flaring.<sup>30</sup> BSEE should enhance oversight and inspections to prevent polluters from cheating and ensure they pay their fair share or take steps to reduce their pollution

## **AFTER LEASES ARE OFFERED**

**A climate screen option for OCS leasing and drilling decisions** - BOEM should adopt regulations that implement a climate screen to require that issuance and development of oil and gas leases conform with U.S. climate goals. These regulations would be consistent with similar components of onshore oil and gas proposals now before the administration. As with onshore leasing, DOI has discretion under OCSLA to

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<sup>28</sup> <https://pubs.acs.org/doi/10.1021/acs.est.0c00179>

<sup>29</sup> <https://www.doi.gov/reports/management-advisory/improvements-needed-bureau-safety-and-environmental-enforcements>

<sup>30</sup> See 43 U.S.C. § 1344(a).

consider protection of the environment, including climate impacts, most immediately<sup>31</sup> in its decisions whether to issue leases, authorize drilling, and in considering whether to suspend or cancel leases already issued.

DOI should promulgate regulations which define how DOI will exercise the discretion it has always had to decide whether it can issue an offshore lease —discretion the IRA only minimally affected by requiring only one lease be issued. The regulations should ensure that DOI issues leases only where doing so is consistent with achieving climate goals, considering existing leases and operations on those leases and future operations on any new lease issued. The regulations can also inform decisions about any production on leases already issued or that may result from future sales, including whether to suspend or cancel leases where production is inconsistent with climate goals.

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<sup>31</sup> A climate screen would also apply at the earlier stages of the OCSLA process discussed above: as a factor as DOI considers whether or how much leasing to include in a five-year program or in subsequently determining whether to offer any individual lease sale proposed in that program.

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Decker, Danielle K" <danielle\_decker@ios.doi.gov>, "Alonso, Shantha R" <shantha\_alonso@ios.doi.gov>

**Cc:** "Beaudreau, Tommy P" <tommy\_beaudreau@ios.doi.gov>, "Feldgus, Steven H" <steve\_feldgus@ios.doi.gov>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] meeting request RE 5YP public engagement

**Date:** Fri, 15 Jul 2022 20:27:47 +0000

**Inline-Images:** image001.png

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Thank you, Danielle. This has been submitted.

Also, for awareness:

[\*\*As Manchin Pulls Back on Climate Legislation, Groups Urge Biden Administration to Uphold Climate Commitments by Finalizing a Five-Year Plan with No New Offshore Leases\*\*](#)

(WASHINGTON, DC) – In light of yesterday’s news that Senator Joe Manchin (D-West Virginia) is ready to walk away from a reconciliation package containing historic investments in climate action, a key pillar of President Biden’s agenda, groups from across the climate movement are calling on the Biden administration to achieve protections for climate, communities, and public health through executive action and federal agencies, including by ensuring the Department of Interior finalizes a Five-Year Program that contains no new offshore drilling leases.

In response to the news, **Earthjustice, Friends of the Earth, League of Conservation Voters, Chispa LCV, Healthy Gulf, the Healthy Ocean Coalition, Oceana, Rachel Carson Council, and Sierra Club** released the following joint statement:

“The unwillingness of Senator Manchin and every single Republican Senator to pass a reconciliation package that includes needed climate action shows that they would rather deliver for the fossil fuel industry than ensure a livable climate for ourselves and future generations. Budget reconciliation is one critical component of President Biden’s bold climate agenda. It’s more important than ever for President Biden and the Department of Interior to finalize a Five-Year Program that contains no new offshore drilling leases. The climate impact of permanently ending new leasing could be the equivalent of taking every car in the country off the road for 15 years. Communities in the Gulf and Alaska see offshore drilling for what it is: a menace to public health, a constant threat to their local economies and livelihoods, and a major driver of the extreme heat, superstorms and flooding that are destroying the places where they live. President Biden must make good on his campaign promises by taking this first major step to put offshore drilling in the past. This is progress his administration can make on its own, and we do not have any more time to waste tackling the climate crisis.”

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**From:** Decker, Danielle K <danielle\_decker@ios.doi.gov>

**Sent:** Friday, July 15, 2022 2:08 PM

**To:** Hoskins, Diane <Dhoskins@oceana.org>; Alonso, Shantha R <shantha\_alonso@ios.doi.gov>

**Cc:** Beaudreau, Tommy P <tommy\_beaudreau@ios.doi.gov>; Feldgus, Steven H <steve\_feldgus@ios.doi.gov>; Lefton,



Amanda B <Amanda.Lefton@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** RE [EXTERNAL] meeting request RE 5YP public engagement

Diane:

Thank you so much for reaching out to us – it is great to hear from you.

For the meeting request, can you please complete this form? [Meeting request form](#)

Then our scheduling team can provide additional guidance.

Have a great weekend,

Danielle Decker  
Deputy Director of Intergovernmental & External Affairs  
U.S. Department of the Interior

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**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Sent:** Friday, July 15, 2022 2 00 PM

**To:** Alonso, Shantha R <[shantha\\_alonso@ios.doi.gov](mailto:shantha_alonso@ios.doi.gov)>; Decker, Danielle K <[danielle\\_decker@ios.doi.gov](mailto:danielle_decker@ios.doi.gov)>

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**Subject:** [EXTERNAL] meeting request RE 5YP public engagement

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Hi Shantha and Danielle,

I'm writing on behalf of a broad group of organizations (listed below) to request a meeting with Secretary Haaland and key stakeholders staff engaged on offshore oil and gas development to discuss concerns with the proposed virtual events which do not allow for public comments. **We'd like to discuss a public engagement approach during the 90-day comment period that we'd like the Department to consider.**

We recognize that the Secretary's schedule is very busy, but given the importance of this comment period and the ability for the public to engage, we think it would be useful for the Secretary to hear. We hope that there might be some time in the schedule in the next few weeks that would work and we are of course more than happy to work to accommodate whatever time works best.

The organizations that are interested in participating in this meeting (scheduling dependent of course) are listed below.

We appreciate your consideration of this request and look forward to hearing back. Please do not hesitate to contact me directly with any questions on this meeting request or for help coordinating a suitable time

Best,  
Diane Hoskins

**Participating Organizations**

Oceana  
Environment America  
Earthjustice  
The Rachel Carson Council  
Healthy Ocean Coalition  
Combined Defense Project  
Friends of the Earth  
NRDC  
Surfrider Foundation  
Healthy Gulf  
The Ocean Foundation  
Cook Inletkeeper  
Center for Biological Diversity  
Ocean Conservancy  
Alaska Wilderness League  
Ocean Defense Initiative  
Taproot Earth  
United Houma Nation  
Chispa Texas  
NDN Collective  
League of Conservation Voters  
Inland Ocean Coalition  
EarthEcho International  
Sierra Club  
Sông CDC

**Diane Hoskins** | Campaign Director



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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Decker, Danielle K" <danielle\_decker@ios.doi.gov>, "Alonso, Shantha R" <shantha\_alonso@ios.doi.gov>

**Cc:** "Beaudreau, Tommy P" <tommy\_beaudreau@ios.doi.gov>, "Feldgus, Steven H" <steve\_feldgus@ios.doi.gov>, "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] Oceana react to today's announcement & Q RE: NC to FL offshore wind

**Date:** Wed, 20 Jul 2022 19:51:51 +0000

**Inline-Images:** image001.png

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Hi all, writing to share Oceana's quick reaction statement following today's announcement, below.

Additionally, it would be helpful to know who we could follow-up with regarding this note from the factsheet: "President Biden is also directing the Secretary of the Interior to advance wind energy development in the waters off the mid- and southern Atlantic Coast and Florida's Gulf Coast —alleviating uncertainty cast by the prior Administration."

Thank you—  
Diane

Oceana released the following statement from Diane Hoskins, climate and energy campaign director:

"Advancing offshore wind in the Gulf of Mexico will lower energy costs, create jobs, and increase domestic energy production all while fighting climate change. Responsible offshore wind stands in stark contrast to dirty and dangerous offshore drilling which shuts down local economies after disastrous oil spills. Our oceans can be a part of the energy solution and provide jobs for transitioning oil and gas workers. Oceana applauds President Biden for his leadership on advancing offshore wind production in the United States. Now it's time for President Biden to follow through on his campaign commitment to protect our oceans and coasts from dirty and dangerous offshore drilling by including no new leases in the final Five-Year Plan."

According to the International Energy Agency, nations must [stop developing new oil and gas fields](#) if global warming is to stay within relatively safe limits. A recent [Oceana analysis](#) found that permanent offshore drilling protections for all unleased federal waters could prevent over 19 billion tons of greenhouse gas emissions. That is the equivalent to taking every car in the United States off the road for the next 15 years. The analysis also found that permanent protections in all unleased federal waters could prevent more than \$720 billion in damages to people, property, and the environment.

**Diane Hoskins** | Campaign Director

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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "amanda.lefton@boem.gov" <amanda.lefton@boem.gov>

**Cc:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] meeting request regarding NARWs and offshore wind

**Date:** Thu, 17 Jun 2021 15:37:22 +0000

**Inline-Images:** image001.png

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**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Hi Director Lefton –

Reaching out on behalf of Oceana to request a meeting to discuss concerns regarding the cumulative impacts of potential offshore wind development in critical habitat for North Atlantic Right Whales.

Meeting participants would include:

Jackie Savitz, Chief Policy Officer

Beth Lowell, Deputy Vice President for US Campaigns

Diane Hoskins, Campaign Director

Gib Brogan, Senior Campaign Manager

Could we find time to discuss with you?

Additionally, wanted to share this statement we put out yesterday in response to the court's ruling on the leasing pause: <https://bit.ly/2SDzthm>

We also really appreciated seeing Gina's tweet: <https://twitter.com/ginamccarthy46/status/1405215912647593996?s=20>

Thank you in advance—

Diane

**Diane Hoskins** | Campaign Director



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[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Lefton, Amanda B" <Amanda.Lefton@boem.gov>, "Cruickshank, Walter" <walter.cruickshank@boem.gov>, "Knodel, Marissa S" <Marissa.Knodel@boem.gov>, "Beaudreau, Tommy P" <tommy\_beaudreau@ios.doi.gov>, "Kelly, Katherine P" <kate\_kelly@ios.doi.gov>, "Klein, Elizabeth A" <elizabeth\_klein@ios.doi.gov>, "Landa, Mackenzie (Kenzie)" <mackenzie\_landa@ios.doi.gov>, "Farmer, Isis U" <Isis.Farmer@boem.gov>, "Brown, William Y" <William.Brown@boem.gov>, "megan.carr@boem.gov" <megan.carr@boem.gov>, "jill.lewandowski@boem.gov" <jill.lewandowski@boem.gov>, "laura.daniel-davis@ios.doi.gov" <laura.daniel-davis@ios.doi.gov>, "steve\_feldgus@ios.doi.gov" <steve\_feldgus@ios.doi.gov>, "OS, OIEA" <oiea@ios.doi.gov>

**Cc:** "Levison, Lara" <LLevison@oceana.org>, "Messmer, Michael" <mmessmer@oceana.org>

**Subject:** [EXTERNAL] recap of #NoNewLeases for offshore drilling efforts

**Date:** Wed, 9 Nov 2022 21:29:46 +0000

**Attachments:** 5YP\_Comment\_Period\_Wrap\_Up\_(2022)\_-\_FINAL.pdf

**Inline-Images:** image001.png

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Team DOI/BOEM:

Please find attached, for your information, a detailed summary of the Protect All Our Coasts Coalition's activities over DOI's recent 90-day comment period on the Proposed 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program. **The coalition is aligned with a shared goal: no new oil and gas leases in the next five-year program.**

I was especially pleased to hear [President Biden's remarks in New York](#) earlier this week where he indicated, after being asked about offshore drilling that, " We're trying to work on that, get that done."

The expansion of offshore drilling not only threatens our climate, but also continues the legacy of pollution in frontline communities that have borne the brunt of dirty energy development for decades.

Also for your awareness, as world leaders gather for COP27, Oceana recently released a [new analysis](#) demonstrating that halting new offshore oil and gas would deliver up to 13% of the annual greenhouse gas emission reductions needed to prevent the worst effects of the climate crisis. This report garnered coverage in [People](#) and [Forbes](#) among many other outlets.

We hope you enjoy the summary and please let me know if you have any questions.

Sincerely,  
Diane

**Diane Hoskins** | Campaign Director

1025 Connecticut Ave. NW, Suite 200

Washington, DC, 20036

**D** 202.467.1948 | **C** 301.672.0894

[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

**Five Year Plan Comment Period**  
**Protect All Our Coasts Coalition**  
**Campaign Activities: July - October 2022**

## Overview

The [Protect All Our Coasts](#) coalition represents over 20 organizations, spanning national, regional, local, and environmental justice organizations who are aligned with a shared goal: **no new leases in the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program (Five Year Plan)**. The Protect All Our Coasts coalition is focused on following and amplifying the leadership of our environmental justice partners in the Gulf and Alaska whose communities would face the impacts of proposed new offshore drilling. Offshore drilling presents a grave threat to communities, our coastal waters, and the climate. From members of Congress, to businesses, scientists, youth activists and influencers, and the general public, the message is clear: our climate and communities demand an end to new offshore oil and gas leases.

Protect All Our Coasts advocacy highlights:

- ❖ The Sept 12th Bureau of Ocean Energy Management (BOEM) hearing first was dominated by those in opposition to offshore drilling. In total, **86 individuals testified in opposition**, demonstrating a unified stance around our central demand: No New Leases.
- ❖ To mark the close of the 90-day public comment period on the Department of the Interior's (DOI) proposed Five Year Plan for offshore oil and gas drilling, **Protect All Our Coasts delivered nearly 800,000 comments and petitions to the Biden administration calling for an end to new offshore drilling**. Some of the participating member organizations included Environment America, Cook Inletkeeper, Florida Gulf Coast Business Coalition, Friends of the Earth, Center for Biological Diversity, Oceana, Surf Industry Members Association, National Parks Conservation Association, Healthy Gulf, Taproot Earth, and the Alaska Marine Conservation Council.
- ❖ 83 U.S. Representatives sent a [letter](#) to Secretary Haaland urging DOI to issue a final five-year offshore drilling plan with no new lease sales. The letter was sent to DOI, BOEM, and the White House on 8/2/2022.
- ❖ A broad and diverse coalition weighed in during the 90-day public comment period, including over **200 environmental and frontline organizations, 50 scientists, 28 youth organizations, and representatives of 60,000 coastal businesses and entrepreneurs**. The coalition is united in calling for no new leases in the next Five Year Plan.

The Biden administration has an opportunity to stand with environmental justice organizations, coastal communities, environmental organizations and young people. It's time for no new offshore oil and gas leases in the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program (Five Year Plan).

Below is a detailed summary of Protect All Our Coasts' work on the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program (Five Year Plan).



## Pre-release of the Five Year Plan

In June, the coalition executed a Month of Action with partners like [Sierra Club](#), [Center for Biological Diversity](#), and [Friends of the Earth](#) to highlight the importance of, and broad support for, a Five Year Plan with no new leases. The coalition also updated [ProtectAllOurCoasts.org](#) to reflect the no new leases ask.

### *Additional Pre-Release Milestones + Moments*

- ❖ **12-Year Memorial of the Deep Water Horizon Disaster:** On April 20th, [Oceana](#), [Healthy Gulf and other Gulf Partners](#) hosted a [Social Media Day of Action](#) to commemorate the Deep Water Horizon Disaster. Oceana also released [a new video](#) to uplift the memorial.
- ❖ **Gulf Gathering for Climate Justice and Joy:** On June 4th, Gulf Partners [converged in Baton Rouge, Louisiana](#) to celebrate the Gulf South and uplift the need for an equitable and just transition away from fossil fuels.

## Five Year Plan Release

On July 1st, BOEM announced its [Five Year Plan](#), proposing up to 10 lease sales in the Gulf of Mexico and an option for 1 potential lease sale in Cook Inlet, Alaska. Within 24 hours of the release, the coalition [issued statements and reactions](#), updated message guidance, and legal analysis, all underscoring the inconsistencies between the proposal and the Biden administration's climate goals and environmental justice commitments.

## BOEM Virtual Hearing

To underscore the importance of no new leases in the final Five Year Plan, the coalition urged DOI and BOEM to schedule a public hearing to receive oral testimony, particularly from the communities that would face the impacts of the proposed lease sales in the Gulf and Alaska. The public hearing on September 12 proved to be a critical opportunity for members of the public to speak directly to DOI and BOEM. The coalition supported partners and advocates in the following ways:

- ❖ Through direct outreach to our organizations' staff, membership, and supporters, the coalition recruited speakers to share their stories and perspectives on the harms of offshore drilling. The first two hours were dominated by those in opposition to offshore drilling. In total, 86 individuals, including 54 frontline residents and 32 folks representing national organizations, testified in opposition, demonstrating a unified stance around our central demand: No New Leases.
- ❖ Throughout September, CDP encouraged groups to use other hashtags like #NoNewLeases, #ProtectOurCoast, and #TimeToTransition to underscore the importance and urgency of no new leases. In total, these hashtags were used over 1812 times, generating over 33.7M potential impressions throughout the month.
  - In particular, we amplified the public hearing opportunity on social media and amplified advocates' testimony in real time throughout the hearing. As a result, Twitter volume for #NoNewLeases was 259% higher than usual on September 12th thanks to the participation of a broad array of organizations including [Sunrise Movement](#), [Healthy Gulf](#), and [Environment Texas](#).

- On the day of the hearing, a Congressional social media day of action amplified the hearing and the call for #NoNewLeases.
  - [Senator Dianne Feinstein](#)
  - [Senator Patty Murray](#)
  - [Rep. Chuy Garcia](#)
  - [Rep. Mike Levin](#)
  - [Rep. Jared Huffman](#)
  - [Rep. Donald McEachin](#)
  - [Rep. Tony Cardenas](#)
  - [Rep. Salud Carbajal](#)

Following the public hearing, groups within the coalition amplified key testimonies and press clips through their channels. NRDC released a [blog post](#) highlighting quotes from frontline advocates. The coalition compiled a [summary](#) of press coverage and social media content from the hearing.

The coalition expressed our gratitude for the virtual hearing opportunity via a letter to Director Lefton on behalf of 17 of our organizations.

### **Petition Delivery**

To mark the close of the 90-day public comment period on the Department of the Interior’s proposed Five Year Plan for offshore oil and gas drilling, Protect All Our Coasts delivered nearly 800,000 comments and petitions to the Biden administration calling for an end to new offshore drilling. Some of the participating member organizations included Environment America, Cook Inletkeeper, Florida Gulf Coast Business Coalition, Friends of the Earth, Center for Biological Diversity, Oceana, Surf Industry Members Association, National Parks Conservation Association, Healthy Gulf, Taproot Earth, the Alaska Marine Conservation Council, and more. In addition, speakers with Oceana, Healthy Gulf, and Taproot Earth provided remarks on the importance of ending new offshore drilling, especially as climate change-fueled disasters increase in frequency.



A strong and diverse coalition of climate advocates, science, youth, faith and business leaders released letters to the Biden administration calling for no new leases in the Five Year Plan:

- ❖ Nearly 200 organizations signed on to the [community letter](#) that urged the administration to consider the impacts of new offshore oil and gas development to coastal and Indigenous communities.
- ❖ Over 50 scientists in academia and the nonprofit sector released a [letter](#) that highlighted the climate and wildlife impacts that new leases would incur and emphasized that meeting net zero carbon emissions by 2050 requires no new investment in oil and gas development.
- ❖ 13 member aquariums of the [Aquarium Conservation Partnership](#) submitted a [joint letter](#) to the comment docket detailing why science-backed institutions are urging no new leases in the final program.
- ❖ 28 youth organizations concerned about oil spills and the damage they cause to local communities [signed on](#) in support of President Biden’s campaign promise of no new leases.
- ❖ Coastal businesses united in their call for no new leases, representing over 60,000 businesses and entrepreneurs, addressed the Administration, BOEM, and DOI in their [letter](#).
- ❖ 61 environmental advocacy groups [addressed President Biden](#) to safeguard historically-disadvantaged communities from climate-related threats and called for no new offshore oil and gas leases in the Five Year Plan, considering existing leases available.

Since the Biden administration took office, 749,673 people have weighed in calling for no new leases. The Biden administration is now evaluating the public comments before releasing a final Five Year Plan.

### **Congressional Engagement**

Throughout the comment period, the coalition worked with members of Congress to elevate the importance of securing no new leases in the final **Five** Year Plan. Activities included:

10 Senators Sent Letter to Interior Secretary Haaland – On June 27, 10 Senators signed on to a [letter](#) urging Secretary Haaland to include no new leasing across all planning areas in the upcoming proposed five-year program. Oceana worked with Senators Feinstein and Menendez’s offices on outreach on the letter. Oceana’s international twitter account [elevated](#) the letter and it was also included in Politico’s Morning Energy [newsletter](#). Senator Feinstein [tweeted](#) the letter out and published a [press release](#), as did Senators [Menendez](#), [Wyden](#), and [Merkley](#). Senators Menendez (D-NJ), Feinstein (D-CA), Merkley (D-OR), Reed (D-RI), Wyden (D-OR), Murray (D-WA), Markey (D-MA), Booker (D-NJ), Padilla (D-CA), and Warren (D-MA) signed the letter.

Hill Briefing on Five-Year Program – On June 22, environmental groups held a briefing with Congressional staff titled “Offshore Drilling, Gas Prices, and the Five-Year Program: Why More Leasing Won’t Lower Prices at the Pump & Will Worsen the Climate Crisis.” Oceana, NRDC, LCV, Friends of the Earth, Southern Environmental Law Center, Sierra Club, and EarthJustice hosted. 82 people registered for the event and 60 participants from Hill offices attended. A recording of the webinar is available [here](#).

Sustainable Energy and Environment Caucus Briefing – On July 1, a coalition of environmental organizations held a briefing to the House of Representatives’ Sustainable Energy and Environment Coalition detailing what will be included in the five-year plan, the importance of calling for no new leases for offshore drilling, and how members of Congress can engage with the administration to comment on the plan. About 35 staffers attended the briefing, which

occurred just hours before the Proposed Program was released.

Congressional Progressive Caucus No New Leases Letter – On July 19, the Congressional Progressive Caucus sent a [letter](#) to the Biden administration urging them to issue a final five-year offshore drilling plan with no new leases and to ban new leasing for fossil fuel development on all federal lands and waters. 27 members signed on.

83 U.S. Representatives sent a [letter](#) to Secretary Haaland urging DOI to issue a final five-year offshore drilling plan with no new lease sales. The letter was sent to DOI, BOEM, and the White House on 8/2/2022.

### Social Media & Digital Ads

In addition to these tactics, the Protect All Our Coasts coalition promoted our campaign on social media. Highlights include:

Influencer & Creator Content: The coalition partnered with social media influencers and creators to raise awareness and drive comments to the docket, generating 1,692 unique comments from the public. This social media campaign gained significant traction on TikTok.

Digital Ads: The coalition ran a series of digital ads throughout the comment period to direct traffic to <https://www.protectallourcoasts.org/> to submit comments. The ads generated over 300,000 impressions.

### Coalition Members

*The following organizations participated in at least one of the activities described above:*

- Alaska Wilderness League
- Aquarium Conservation Partnership
- Azul
- Business Alliance for Protecting the Atlantic Coast
- Business Alliance for Protecting the Pacific Coast
- Center for Biological Diversity
- Cook Inletkeeper
- Earthjustice
- Environment America
- Environmental Action



Florida Gulf Coast Business Coalition  
Food & Water Watch  
Friends of the Earth  
Healthy Gulf  
Healthy Ocean Coalition  
Inland Ocean Coalition  
League of Conservation Voters  
Monterey Bay Aquarium  
National Ocean Protection Coalition  
National Parks Conservation Association  
NRDC  
Oceana  
People vs. Fossil Fuels  
PIRG  
Rachel Carson Council  
Seattle Aquarium  
Sierra Club  
Surf Industry Members Association  
Surfrider Foundation  
Taproot Earth  
Waterway Advocates

**From:** Amy Trice <atrice@oceanconservancy.org>

**Cc:** Sandra Whitehouse <sandrawhitehouse@mac.com>, Anna-Marie Laura <alaura@oceanconservancy.org>, Jeff Watters <jwatters@oceanconservancy.org>, Theo Koboski <tkoboski@oceanconservancy.org>, Adam Mistler <amistler@oceanconservancy.org>

**Subject:** [EXTERNAL] update | job transition

**Date:** Thu, 23 Feb 2023 17:13:35 +0000

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Colleagues and friends,

After nearly a decade with Ocean Conservancy, I am taking a new position as Senior Program Director with the Northeast Regional Ocean Council. My last day will be February 24.

In my new position, I will advance many of the policy issues that I have worked on for nearly a decade with many of you all including supporting the Northeast Regional Ocean Council's federal and regional ocean and coastal policy work, regional ocean data portal, and the Regional Wildlife Science Collaborative.

Most importantly, it has been incredibly lovely working with you all over the years. I look forward to working with you in this new position.

My email is [amy@amytrice.net](mailto:amy@amytrice.net). Please reach out anytime and hope to see you soon!

I am copying several OC colleagues who many of you know. Please reach out to them on the topics we have worked together on over the years.

Cheers, Amy

---

Amy Trice  
Director, Ocean Planning  
Ocean Conservancy  
Phone: 202.280.6234

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Kendall Dix <kdix@taproot.earth>

**Subject:** Automatic reply: [Virtual] Meeting on Gulf OSW & Energy Transition [EXTERNAL]

**Date:** Thu, 15 Jun 2023 19:33:57 +0000

---

Hello!

I am out of the office traveling for work between June 14-16 and will be slow to respond to e-mail. In case of an emergency, please call 202-538-2415.

Peace,

Marissa Knodel

**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** Kendall Dix <kdix@taproot.earth>, "Nasir, Iqra" <Iqra.Nasir@bsee.gov>, Jackson Voss <jackson@all4energy.org>, "Shahyd, Khalil" <kshahyd@nrdc.org>, Leo Lindner <leo@truetransition.org>, Megan Milliken ((b) (6)) Scott Eustis <scott@healthygulf.org>

**Subject:** Re: [Virtual] Meeting on Gulf OSW & Energy Transition [EXTERNAL]

**Date:** Tue, 20 Jun 2023 16:51:14 +0000

---

Hello everyone,

To discuss further details about the Gulf of Mexico offshore wind lease sale and associated lease stipulations and bidding credits, the best BOEM contacts are Bridgette Duplantis (Bridgette.Duplantis@boem.gov) and Lissa Lyncker (Lissa.Lyncker@boem.gov). Lissa is our chief of staff in the Gulf of Mexico regional office, so is the key contact for getting in touch with any of our staff in the region.

For further discussion about bidding credits and lease stipulations relating to CBAs and PLAs, I can remain your contact to help set up more detailed conversations between staff in our Gulf of Mexico regional office and economic policy branch.

I'm copying my counterpart at BSEE, Iqra Nasir, who can help with BSEE contacts for the other issues we discussed concerning worker safety and idle iron decommissioning.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Knodel, Marissa S Marissa.Knodel@boem.gov

**Sent:** Tuesday, June 20, 2023 12:36 PM

**To:** Kendall Dix kdix@taproot.earth ; Woods, Candice R candice\_woods@ios.doi.gov ; Macdonald, Cara Lee <cara\_macdonald@ios.doi.gov>; Klein, Elizabeth A <Elizabeth.Klein@boem.gov>; Nasir, Iqra <Iqra.Nasir@bsee.gov>; Farmer, Isis U Isis.Farmer@boem.gov ; Jackson Voss jackson@all4energy.org ; Kendall, James J <James.Kendall@boem.gov>; Sligh, Kevin M <Kevin.M.Sligh@bsee.gov>; Shahyd, Khalil <kshahyd@nrdc.org>; Robbins, Laura A laura\_robbins@boem.gov ; Daniel Davis, Laura E laura\_daniel\_davis@ios.doi.gov ; Leo Lindner <leo@truetransition.org>; Lyncker, Lissa A <Lissa.Lyncker@boem.gov>; Megan Milliken ((b) (6))



Cajarty, Ruben B <ruben\_cajarty@ios.doi.gov>; Scott Eustis <scott@healthygulf.org>; Alonso, Shantha R shantha\_alonso@ios.doi.gov ; Beaudreau, Tommy P tommy\_beaudreau@ios.doi.gov ; Cruickshank, Walter <Walter.Cruickshank@boem.gov>

**Subject:** Re [Virtual] Meeting on Gulf OSW & Energy Transition [EXTERNAL]

Hello Kendall,

Thank you very much for the meeting and compiling the resource list. I will follow up with the group separately regarding best contacts for the issues we discussed.

Peace,

Marissa Knodel (she/her/they)  
Senior Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

**Did you notice the font is large?** This is done for accessibility purposes. 14pt font size with Arial or Verdana (sans serif) fonts are the most legible.

---

**From:** Kendall Dix <kdix@taproot.earth>

**Sent:** Thursday, June 15, 2023 3:29 PM

**To:** Woods, Candice R <candice\_woods@ios.doi.gov>; Macdonald, Cara Lee <cara\_macdonald@ios.doi.gov>; Klein, Elizabeth A <Elizabeth.Klein@boem.gov>; Nasir, Iqra <Iqra.Nasir@bsee.gov>; Farmer, Isis U <Isis.Farmer@boem.gov>; Jackson Voss <jackson@all4energy.org>; Kendall, James J. <James.Kendall@boem.gov>; Sligh, Kevin M <Kevin.M.Sligh@bsee.gov>; Shahyd, Khalil <kshahyd@nrdc.org>; Robbins, Laura A <laura.robbins@boem.gov>; Daniel-Davis, Laura E <laura\_daniel-davis@ios.doi.gov>; Leo Lindner <leo@truetransition.org>; Lyncker, Lissa A <Lissa.Lyncker@boem.gov>; Knodel, Marissa S <Marissa.Knodel@boem.gov>; Megan Milliken <(b) (6)> Cajarty, Ruben B <ruben\_cajarty@ios.doi.gov>; Scott Eustis <scott@healthygulf.org>; Alonso, Shantha R <shantha\_alonso@ios.doi.gov>; Beaudreau, Tommy P <tommy\_beaudreau@ios.doi.gov>; Cruickshank, Walter <Walter.Cruickshank@boem.gov>

**Subject:** [Virtual] Meeting on Gulf OSW & Energy Transition [EXTERNAL]

Dear DOI, BOEM, and BSEE staff,

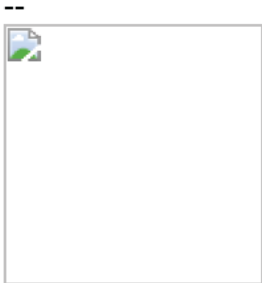
Thanks again for meeting with our Gulf wind working group on Monday. We really enjoyed the conversation and hope it will be the first of many. We would love to be put in touch with any relevant staff members who we could work with on some of the specific issues we talked about during our meeting, including the Gulf wind lease sale notice, community benefit funds, idle iron, and project labor agreements.

I'm including a list of resources our organizations have written on offshore energy issues. Please let us know if you'd like to meet again to discuss:

- True Transition [Idle iron](#) memo.
- True Transition [Safety on the OCS](#) memo.

- [True Transition comments to BOEM](#)
- [True Transition national survey and report](#)
- [Taproot Earth comments to BOEM](#)
- [Healthy Gulf comments to BOEM](#)
- [Group comments on community engagement to BOEM](#)
- [Principles of a Just Transition in Offshore Wind Energy](#)

Thanks,  
Kendall



**Kendall Dix**  
National Policy Director  
Taproot Earth  
he/they

---



- [\(434\) 442-0179](tel:(434)442-0179)
- [kdix@taproot.earth](mailto:kdix@taproot.earth)
- [taproot.earth](http://taproot.earth)

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** RE: [EXTERNAL] finding time to connect

**Date:** Tue, 30 Nov 2021 19:27:56 +0000

**Inline-Images:** image001.png

---

Perfect, see you then.

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>

**Sent:** Tuesday, November 30, 2021 2:14 PM

**To:** Hoskins, Diane <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] finding time to connect

How about Filter (1916 I St NW) at 11 a.m.?

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>

**Sent:** Tuesday, November 30, 2021 1:21 PM

**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Subject:** RE: [EXTERNAL] finding time to connect

Thank you, and 12/8, any time before 12:30 works great. Just name the time and place!

Looking forward –

Diane

---

**From:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>

**Sent:** Tuesday, November 30, 2021 1:14 PM

**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>

**Subject:** Re: [EXTERNAL] finding time to connect

Hey Diane,

This week is not good for me, but next Tuesday, Thursday, or Friday mornings aren't bad as I'll be in the office and can stop somewhere in between our respective office on my commute. I could also do a late morning or early afternoon coffee on Wednesday, December 8 -- I'm open between 10:30 and 2:00.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, November 30, 2021 1 01 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] finding time to connect

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Hi Marissa,  
Hope you're doing well Reaching out to see if we can find time to connect over coffee  
Would there be a good time, maybe sometime later this week?  
Thank you, Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036  
D 202.467.1948 | C 301.672.0894  
[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

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**From:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**To:** "Hoskins, Diane" <Dhoskins@oceana.org>

**Subject:** Re: [EXTERNAL] finding time to connect

**Date:** Tue, 7 Dec 2021 15:21:36 +0000

**Inline-Images:** image001.png

---

Yup!

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Tuesday, December 7, 2021 10:19 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** RE: [EXTERNAL] finding time to connect

Looking forward to tomorrow. Still work for you?  
thanks!  
diane

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Tuesday, November 30, 2021 2:14 PM  
**To:** Hoskins, Diane <Dhoskins@oceana.org>  
**Subject:** Re: [EXTERNAL] finding time to connect

How about Filter (1916 I St NW) at 11 a.m.?

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, November 30, 2021 1:21 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** RE: [EXTERNAL] finding time to connect

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Looking forward –  
Diane

---

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**Sent:** Tuesday, November 30, 2021 1:14 PM  
**To:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Subject:** Re: [EXTERNAL] finding time to connect

Hey Diane,

This week is not good for me, but next Tuesday, Thursday, or Friday mornings aren't bad as I'll be in the office and can stop somewhere in between our respective office on my commute. I could also do a late morning or early afternoon coffee on Wednesday, December 8 -- I'm open between 10:30 and 2:00.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

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**Sent:** Tuesday, November 30, 2021 1 01 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] finding time to connect

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Hi Marissa,  
Hope you're doing well Reaching out to see if we can find time to connect over coffee  
Would there be a good time, maybe sometime later this week?  
Thank you, Diane

**Diane Hoskins** | Campaign Director



1025 Connecticut Ave. NW, Suite 200  
Washington, DC, 20036  
D 202.467.1948 | C 301.672.0894  
[dhoskins@oceana.org](mailto:dhoskins@oceana.org) | [www.oceana.org](http://www.oceana.org)

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**From:** "Coffman, Sarah" <Sarah.Coffman@boem.gov>  
**To:** "Hoskins, Diane" <Dhoskins@oceana.org>  
**Subject:** RE: [EXTERNAL] following up  
**Date:** Fri, 10 Mar 2023 16:25:06 +0000

---

Hi Dianne – I enjoyed the discussion and meeting you as well. Can you send me a list of questions or topics that you'd like to follow-up on?

Also, I wanted to make sure you saw Stipulation 8 from the Sale 259 Final Notice of Sale. It addresses the IRA's requirement to assess royalties on all produced gas. [https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Sale-259-Stipulations\\_1.pdf](https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Sale-259-Stipulations_1.pdf)

Thanks,  
Sarah

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Tuesday, February 28, 2023 3:35 PM  
**To:** Coffman, Sarah <Sarah.Coffman@boem.gov>  
**Subject:** [EXTERNAL] following up

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Hi Sarah,  
It was great to meet you during our meeting last week.  
Would you have a few minutes to check-in? I have a few questions on your comments and would appreciate the opportunity to connect.  
Thanks,  
Diane

**Diane Hoskins** | Campaign Director



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**From:** "Hoskins, Diane" <Dhoskins@oceana.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** RE: [EXTERNAL] question re federal permitting initiative  
**Date:** Tue, 22 Jun 2021 18:28:47 +0000

---

Thanks, appreciate it!

---

**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Tuesday, June 22, 2021 1:50 PM  
**To:** Hoskins, Diane <Dhoskins@oceana.org>  
**Subject:** Re: [EXTERNAL] question re federal permitting initiative

Hey Diane, thanks for sharing. I wouldn't have characterized the agreement the way the Governor's office did. Yes, the partnership with USACE will provide more data and resources to help inform the analyses we do when reviewing offshore wind lease areas and projects, but does not entail a new or revised review process.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)

---

**From:** Hoskins, Diane <[Dhoskins@oceana.org](mailto:Dhoskins@oceana.org)>  
**Sent:** Tuesday, June 22, 2021 1:32 PM  
**To:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>  
**Subject:** [EXTERNAL] question re federal permitting initiative

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Hi Marissa,  
I have an offshore wind question for you – are you the right person?  
Reaching out about new offshore wind federal permitting initiative referenced by Gov. Northam.  
<https://www.governor.virginia.gov/newsroom/all-releases/2021/june/headline-897323-en.html>  
We are aware of this press release: <https://www.boem.gov/boem-and-usace-collaborate-meet-offshore-wind-goals>  
Any additional insights/ information you could point me to?  
Thanks so much, Diane

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**From:** Sue Mauger <[sue@inletkeeper.org](mailto:sue@inletkeeper.org)>

**To:** "Klein, Elizabeth A" <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>

**Cc:** "Knodel, Marissa S" <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>, "Feldgus, Steven H" <[steve\\_feldgus@ios.doi.gov](mailto:steve_feldgus@ios.doi.gov)>, "Annatoyn, Travis J" <[travis.annatoyn@sol.doi.gov](mailto:travis.annatoyn@sol.doi.gov)>, "Farmer, Isis U" <[Isis.Farmer@boem.gov](mailto:Isis.Farmer@boem.gov)>, "Foreman, Jennafer (Jenna)" <[Jennafer.Foreman@boem.gov](mailto:Jennafer.Foreman@boem.gov)>

**Subject:** Re: [EXTERNAL] Re: request for a meeting

**Date:** Tue, 7 Feb 2023 14:07:42 -0900

---

Thank you for your response Director Klein. Yes, Travis has reached out and we will be talking on Friday. I appreciate the opportunity for more conversation about the pending lease in Cook Inlet and ways to move forward for the waters, lands and people of Alaska.

All the best, Sue

On Tue, Feb 7, 2023 at 1:54 PM Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)> wrote:

Sue,

Thank you very much for your note and meeting request. I think our Solicitor's office was going to reach out directly to your attorneys, given the litigation, where BOEM is in the process, and the challenges with my schedule. Hopefully that connection is made soon.

Thanks again,

Liz

---

**From:** Sue Mauger <[sue@inletkeeper.org](mailto:sue@inletkeeper.org)>

**Sent:** Friday, February 3, 2023 6:21 PM

**To:** Klein, Elizabeth A <[Elizabeth.Klein@boem.gov](mailto:Elizabeth.Klein@boem.gov)>

**Cc:** Knodel, Marissa S <[Marissa.Knodel@boem.gov](mailto:Marissa.Knodel@boem.gov)>; Feldgus, Steven H <[steve\\_feldgus@ios.doi.gov](mailto:steve_feldgus@ios.doi.gov)>

**Subject:** [EXTERNAL] Re: request for a meeting

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Bumping this up as two weeks have passed since I reached out with my request. Thank you in advance for a reply, Sue

On Mon, Jan 23, 2023 at 11:28 AM Sue Mauger <[sue@inletkeeper.org](mailto:sue@inletkeeper.org)> wrote:

Director Klein

Congratulations on your appointment to lead the Bureau of Ocean Energy Management. I look forward to all that BOEM can do to accelerate our necessary energy transition under your leadership.

I had the pleasure of meeting with Director Lefton and Senior Advisor Knodel (hello Marissa!) during their visit to Homer, Alaska this summer. We met just days before the Inflation Reduction Act passed, which mandated Oil & Gas Lease Sale 258 in Lower Cook Inlet go forward, despite BOEM canceling the sale for lack of industry interest last May.

On December 30th, Lease Sale 258 garnered just one bid on one block. Prior to the sale, the Center for Biological Diversity and Natural Resources Defense Council filed a lawsuit together with Earthjustice, which represents Cook Inletkeeper, Kachemak Bay Conservation Society, and Alaska Community Action on Toxics. The lawsuit argues that approval of the Cook Inlet lease sale violates the National Environmental Policy Act by failing to meaningfully account for climate impacts or consider alternatives that would have resulted in less harm to the climate, marine life and surrounding communities.

Cook Inletkeeper, its lawyers, and other plaintiffs request a meeting with you to talk about our concerns and to encourage BOEM to use its broad authority to reject Hilcorp's one bid.

I understand that BOEM is currently in the process of doing a fair market value analysis of the bid, so time is short. Please let me know if you would meet (virtually) within the next 3 weeks.

Thank you for your consideration. Wishing you all the best in your new position, Sue

**Sue Mauger**  
*Science & Executive Director*

Cook Inletkeeper  
3734 Ben Walters Lane  
Homer, AK 99603  
(c) 907.399.2070  
[ue@inletkeeper.org](mailto:ue@inletkeeper.org)

[www.inletkeeper.org](http://www.inletkeeper.org)

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** [EXTERNAL] thank you and checking in

**Date:** Thu, 3 Jun 2021 15:46:18 +0000

**Attachments:** Blog\_-\_The\_National\_Business\_Coalition\_Roundtable.docx

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Hi Marissa, thank you for joining yesterday's business event.

Because we let you know this event would be closed press- wanted to check in about a possible blog.

Ideally, we would like to post the attached to Oceana's website and share the recording of the event in a blog that would be shared with business owners.

Any concern?

Thanks for considering--

Diane

**Diane Hoskins** | Campaign Director

 **Description:**  
<http://oceana.deskpro.com/file.php/93702JHKYWGBMKHXXSQW0/image001.p>

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## **The National Business Roundtable: Protecting our coast and creating a thriving clean coastal economy**

On Tuesday, June 1, business leaders, ocean advocates, and federal and local elected officials came together for a roundtable discussion on the importance of permanently protecting our coasts from dirty and dangerous offshore oil drilling.



*Nancy Downes, Oceana Field Representative, Massachusetts introduces Rep. Mike Levin (D- CA-49) to kick off the event.*

*The National Business Roundtable* was an opportunity for business leaders from across the country to discuss the importance of healthy oceans and clean beaches for their communities and businesses, while advocating for permanent protections from offshore oil drilling off their coasts. Regional business alliance leaders provided remarks, including Thomas Kies, president of the Carteret County (N.C.) Chamber of Commerce and the Business Alliance for Protecting the Atlantic Coast; Robin Miller, President and CEO of the Tampa Bay Beaches Chamber of Commerce and chair of the Florida Gulf Coast Business Coalition; and Vipe Desai, CEO of HDX Mix and a founding member of the Business Alliance for Protecting the Pacific Coast. The business leaders shared stories of the devastation caused by disastrous oil spills like the BP *Deepwater Horizon* tragedy and discussed the value that a healthy ocean brings to their communities.

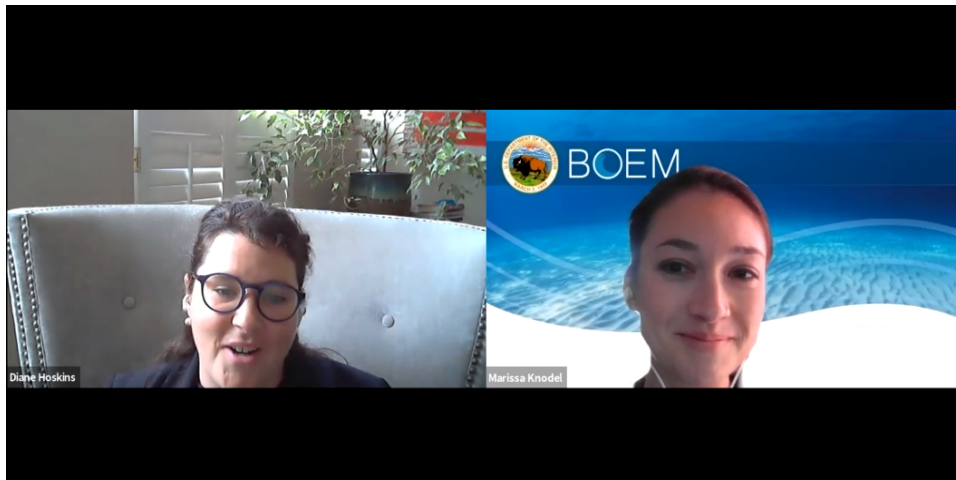


*Thomas Kies, President of the Business Alliance for Protecting the Atlantic Coast, discusses the economic benefits of permanent protections from offshore drilling*

Rep. Mike Levin (D-CA) and Sen. Ed Markey (D-MA) urged Congress to take up the mantle to pass permanent protections, and Marissa Knodel of the Bureau of Ocean Energy Management (BOEM) provided an update from the Biden-Harris administration on their current leasing pause.



*Sen. Ed Markey (D-MA) urging Congress to pass permanent protections from offshore oil drilling*



*Oceana Campaign Director Diane Hoskins introduces BOEM advisor Marissa Knodel, who briefed attendees on action from the Biden-Harris Administration*

Captain Dylan Hubbard joined live from his boat off the coast of Florida to discuss the importance of clean, healthy oceans to his business. He is the VP of Hubbard's Marina, which runs deep-sea fishing trips, dolphin tours, and snorkeling trips off Florida's Gulf Coast, all of which are threatened by dirty and dangerous offshore oil drilling.



*Capt. Dylan Hubbard joins live from his boat in FL to discuss the importance of a healthy ocean to his business*

Mayor Rett Newton of Beaufort, North Carolina added a local perspective on the vital role the coastal economy plays in his town, and the importance of protecting it from offshore drilling. Along with Beaufort, hundreds of municipalities up and down America's coasts have said no to offshore oil drilling, with 392 communities passing official resolutions to protect their coasts.

At the end of the event, Oceana's deputy vice president for U.S. campaigns Beth Lowell officially [announced the launch](#) of a new national business coalition to help win policy victories that protect, restore, and maintain ocean abundance and biodiversity. [The National Business Coalition for the Oceans](#) will build on the success of regional alliances along the Atlantic, Pacific,

and Eastern Gulf in the fight to stop the expansion of dirty and dangerous offshore drilling, and will engage in other important issues like stopping plastic pollution, protecting endangered species, promoting responsible fishing, stopping illegal fishing, and expanding transparency.

To catch the event replay, it can be viewed [here](#). Note, Oceana is a nonpartisan organization. The participation of any political candidate in this event should not be viewed as a statement endorsing or opposing any candidate. This event was closed to press.

If you are a business owner interested in joining the National Business Coalition for the Oceans, you can sign-up online: [www.oceana.org/businesscoalition](http://www.oceana.org/businesscoalition)

[Patrick, pls. embed video on our site below]

**From:** "Hoskins, Diane" <Dhoskins@oceana.org>

**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>

**Subject:** Automatic reply: [EXTERNAL] thank you and checking in

**Date:** Fri, 4 Jun 2021 14:51:25 +0000

---

Hi there, I am out of the office and will respond to your message by Tuesday or Thursday.

Thanks,

Diane

**Diane Hoskins | Campaign Director | Oceana**

301-672-0894



**From:** "Hoskins, Diane" <Dhoskins@oceana.org>  
**To:** "Knodel, Marissa S" <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] thank you and checking in  
**Date:** Fri, 4 Jun 2021 15:07:28 +0000

---

Will do! Thank you!

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**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Friday, June 4, 2021 10:51:15 AM  
**To:** Hoskins, Diane <Dhoskins@oceana.org>  
**Subject:** Re: [EXTERNAL] thank you and checking in

Hey Diane,

We are okay with the blog being published, but would like to edit the description under the screenshot of you and me to the following:

Marissa Knodel of the Bureau of Ocean Energy Management (BOEM) provided an update from the Biden-Harris administration on federal government's offshore drilling policy.

Thanks!

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202.538.2415  
Marissa.Knodel@boem.gov

---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Thursday, June 3, 2021 9:25 PM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** Re: [EXTERNAL] thank you and checking in

Of course. Thanks, Diane

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**From:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Sent:** Thursday, June 3, 2021 9:06:30 PM  
**To:** Hoskins, Diane <Dhoskins@oceana.org>  
**Subject:** Re: [EXTERNAL] thank you and checking in

Hey Diane,

Thanks so much for the heads up. I'll notify BOEM and DOI comms to see if they have any concerns.

Peace,

Marissa Knodel  
Advisor, Bureau of Ocean Energy Management  
202 538 2415  
Marissa.Knodel@boem.gov


---

**From:** Hoskins, Diane <Dhoskins@oceana.org>  
**Sent:** Thursday, June 3, 2021 11 46 AM  
**To:** Knodel, Marissa S <Marissa.Knodel@boem.gov>  
**Subject:** [EXTERNAL] thank you and checking in

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Any concern?  
Thanks for considering--  
Diane

**Diane Ho kin** | Campaign Director

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