

ESA Section 4(b)(2) Report

In Support of the Final Designation of Critical Habitat for the Mexico,
Central America, and Western North Pacific Distinct Population
Segments of Humpback Whales
(*Megaptera novaeangliae*)

July 2020

Office of Protected Resources
NATIONAL MARINE FISHERIES SERVICE

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I. Introduction

This report documents the National Marine Fisheries Service's (NMFS) compliance with section 4(b)(2) of the Endangered Species Act (ESA) regarding consideration of the impacts of designating critical habitat for three distinct population segments (DPSs) of humpback whales. Specifically, this report documents consideration of the economic, national security, and other relevant impacts of designating critical habitat for the Mexico, Central America, and Western North Pacific DPSs of humpback whales. The report presents the methods used and conclusions reached in considering the impacts of the designation. Further, because we undertook an analysis to compare the benefits of exclusion of particular areas to the benefits of inclusion of those areas, it provides recommendations regarding specific areas to propose for exclusion. Two supporting reports - the Final Biological Report (NMFS 2020) and the Final Economic Analysis (FEA, IEc 2020) - directly informed the analyses and recommendations presented in this report. Those reports should be read in combination with this document, as information from those reports is not repeated in detail here.

II. Background

On September 8, 2016, NMFS published a final rule that revised the listing of humpbacks whales by removing the taxonomic species listing under the ESA, listing four distinct population segments (DPSs) as endangered, and listing one DPS as threatened (81 FR 62260). NMFS also determined that nine additional DPSs did not warrant listing. Section 4(a)(3)(A) of the ESA requires NMFS to designate critical habitat for threatened and endangered species, which include DPSs, to the maximum extent prudent and determinable (16 U.S.C. 1533(a)(3)(A)).

Three of the five DPSs of humpback whales have ranges that extend into U.S. waters – the threatened Mexico (MX) DPS, the endangered Central America (CAM) DPS, and the endangered Western North Pacific (WNP) DPS. These three DPSs are the focus of this report. Other DPSs that range outside of U.S. waters are not addressed in this report, because our regulations preclude designation of critical habitat within foreign countries or in other areas outside the jurisdiction of the United States (50 CFR 424.12(g)). We concluded that critical habitat was not determinable at the time of listing (September 8, 2016, 81 FR 62260).

To identify areas meeting the definition of critical habitat for the MX, CAM, and WNP DPSs, NMFS convened a Critical Habitat Review Team (CHRT) consisting of biologists from NMFS and the National Ocean Service with expertise and experience with humpback whale research or management, GIS, and/or critical habitat designations (names and affiliations listed in NMFS 2020). To identify critical habitat areas, the CHRT reviewed the best available data and information regarding humpback whales, including the global assessment of humpback whales and the status review that were completed in support of the ESA listings (Fleming and Jackson 2011, Bettridge *et al.* 2015), the proposed and final listing rules for humpback whales (76 FR 22304, April 21, 2015; 81 FR 62260, September 8, 2016), recent biological surveys and reports, and peer-reviewed literature. The CHRT also convened a workshop on May 22-23, 2018, at the NMFS Northwest Fisheries Science Center (NWFSC) to discuss relevant data and research (see Final Biological Report, cited here as NMFS 2020). As described further in the Final Biological Report, following the close of the public comment period on the proposed rule to designate critical habitat for the three DPSs (84 FR 54354, October 9, 2019) and in response to public comments received, we reconvened a CHRT to repeat the assessment of the relative conservation value of each specific area and for each DPS. The results of that second assessment were applied in our section 4(b)(2)

analysis (discussed in this report) comparing the benefits of designation of particular areas to the benefits of exclusion of those areas.

The CHRT identified 19 areas of occupied habitat along the coast of Alaska, Washington, Oregon, and California (Figure 1) containing the essential biological feature of prey, described for each DPS as follows:

CAM DPS - Prey species, primarily euphausiids (*Thysanoessa*, *Euphausia*, *Nyctiphanes*, and *Nematoscelis*) and small pelagic schooling fishes, such as Pacific sardine (*Sardinops sagax*), northern anchovy (*Engraulis mordax*), and Pacific herring (*Clupea pallasii*), of sufficient quality, abundance, and accessibility within humpback whale feeding areas to support feeding and population growth.

WNP DPS - Prey species, primarily euphausiids (*Thysanoessa* and *Euphausia*) and small pelagic schooling fishes, such as Pacific herring (*Clupea pallasii*), capelin (*Mallotus villosus*), juvenile walleye pollock (*Gadus chalcogrammus*) and Pacific sand lance (*Ammodytes personatus*) of sufficient quality, abundance, and accessibility within humpback whale feeding areas to support feeding and population growth.

MX DPS - Prey species, primarily euphausiids (*Thysanoessa*, *Euphausia*, *Nyctiphanes*, and *Nematoscelis*) and small pelagic schooling fishes, such as Pacific sardine (*Sardinops sagax*), northern anchovy (*Engraulis mordax*), Pacific herring (*Clupea pallasii*), capelin (*Mallotus villosus*), juvenile walleye pollock (*Gadus chalcogrammus*), and Pacific sand lance (*Ammodytes personatus*) of sufficient quality, abundance, and accessibility within humpback whale feeding areas to support feeding and population growth.

These essential features may require special management considerations or protections as a result of climate change, commercial fishing, marine pollution, and ocean noise (see NMFS 2020).

III. Statute and Regulations

We developed our recommendations consistent with statutory requirements and agency regulations, which are summarized below.

A. Findings and purposes of the ESA emphasize habitat conservation

In section 2(a) of the ESA, “Findings,” (16 U.S.C. 1531(a)(1)) Congress declared that:

Various species of fish, wildlife and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation.

Section 2(b) of the ESA sets forth the “purposes” of the Act (at 16 U.S.C. 1531(b)), beginning with habitat protection:

The purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as

may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.

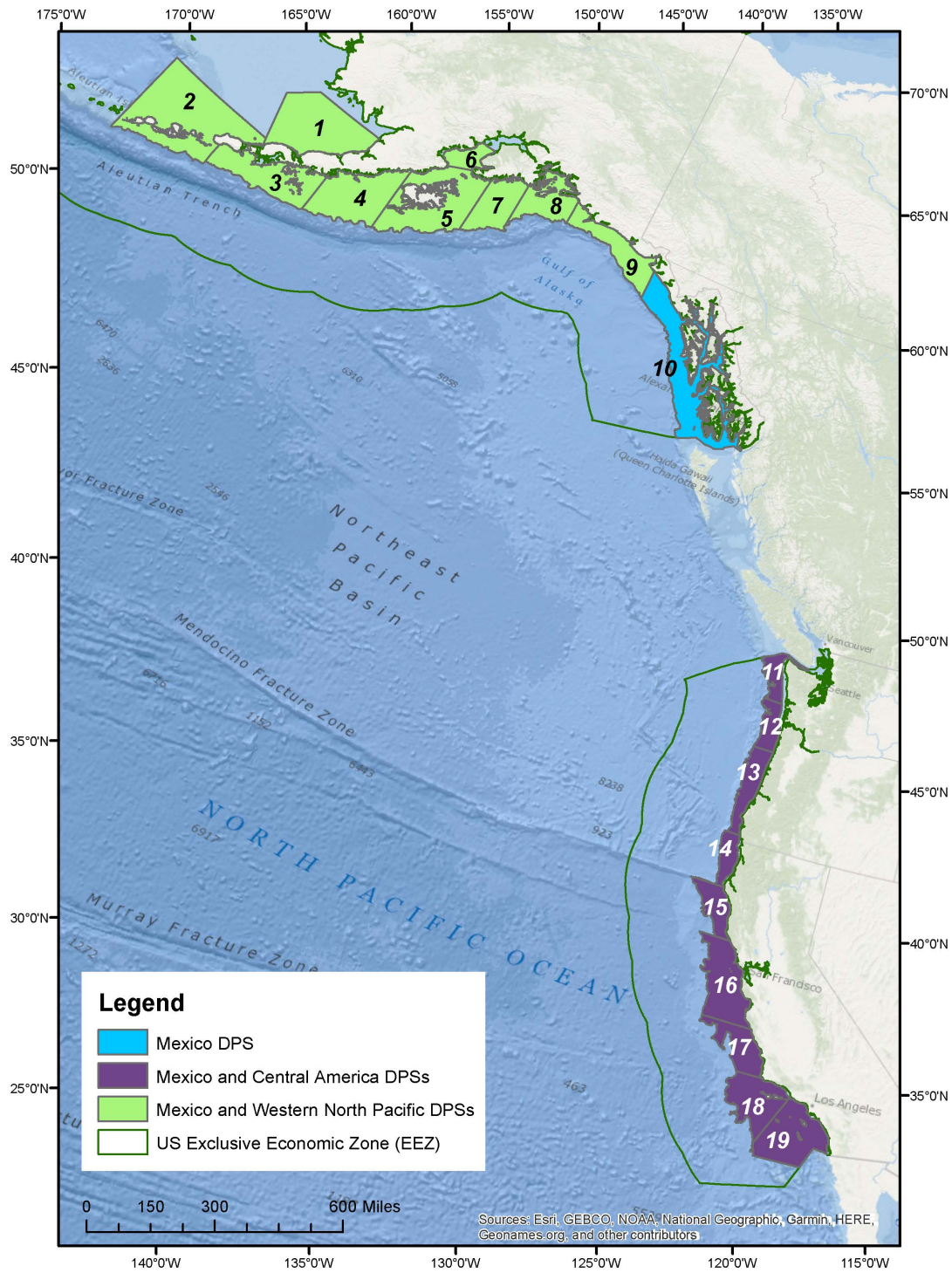


Figure 1. Specific areas identified as meeting the definition of critical habitat for the MX, CAM, and WNP DPSs of humpback whales. See NMFS (2020) for a detailed description of how area boundaries were selected and drawn.

B. "Critical Habitat" is specifically defined

Section 3(5)(A) of the ESA (16 U.S.C. 1532 (5)) defines critical habitat and sets forth certain limitations on its designation:

- (5)(A) The term "critical habitat" for a threatened or endangered species means –
 - (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
 - (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.
- (B) Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established as set forth in subparagraph (A) of this paragraph.
- (C) Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

C. "Conservation" is specifically defined

Section 3(3) of the Act defines conservation (16 U.S.C. 1532(3)):

- (3) The terms "conserve", "conserving", and "conservation" mean to use and the use of 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 this chapter are no longer necessary. ****

D. Specific deadlines for making critical habitat designations

Section 4(a)(3)(A) (16 U.S.C. 1533(a)(3)(A)) requires NMFS to make critical habitat designations concurrently with the listing determination, to the maximum extent prudent and determinable:

- (A) The Secretary, by regulation promulgated in accordance with subsection (b) of this section and to the maximum extent prudent and determinable -
 - (i) shall, concurrently with making a determination under paragraph (1) that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical habitat; and
 - (ii) may, from time-to-time thereafter as appropriate, revise such designation.

The time for designating critical habitat may be extended pursuant to section 4(b)(6)(C) (ii) (16 U.S.C. 1533(b)(6)(ii)), but not by more than one additional year:

- (C) A final regulation designating critical habitat of an endangered species or a threatened species shall be published concurrently with the final regulation implementing the determination that such species is endangered or threatened, unless the Secretary deems that -
 - ****
 - (ii) critical habitat of such species is not then determinable, in which case the Secretary, with respect to the proposed regulation to designate such habitat, may extend the one-year

period specified in subparagraph (A) by not more than one additional year, but not later than the close of such additional year the Secretary must publish a final regulation, based on such data as may be available at that time, designating, to the maximum extent prudent, such habitat.

E. Certain military lands are precluded from designation

In 2003, Congress amended section 4(a)(3)(B)(i) of the ESA (16 U.S.C. 1533(a)(3)(B)(i)) to limit the designation of land controlled by the Department of Defense (DOD) (National Defense Authorization Act, P.L. No. 108-136):

The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

Regulations at 50 CFR 424.12(h) provide that in determining whether an applicable benefit is provided by a compliant or operational plan, NMFS will consider:

1. The extent of the area and features present;
2. The type and frequency of use of the area by the species;
3. The relevant elements of the integrated natural resource management plan (INRMP) in terms of management objectives, activities covered, and best management practices, and the certainty that the relevant elements will be implemented; and
4. The degree to which the relevant elements of the INRMP will protect the habitat from the types of effects that would be addressed through a destruction-or-adverse-modification analysis.

F. Impacts of designation must be considered and areas may be excluded

Specific areas that fall within the definition of critical habitat are not automatically designated as critical habitat. Section 4(b)(2) of the ESA (16 U.S.C. 1533(b)(2)) requires the Secretary to consider the impact of designation. Further, that section permits the Secretary to undertake further analysis and exclude areas from designation under certain circumstances. Exclusion is not required for any areas.

The Secretary shall designate critical habitat, and make revisions thereto, under subsection (a)(3) of this section on the basis of the best scientific data available and after taking into consideration the economic impact, the impact to national security and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

G. Federal agencies must ensure their actions are not likely to destroy or adversely modify critical habitat

Once critical habitat is designated, section 7(a)(2) provides that federal agencies must ensure any actions they authorize, fund, or carry out are not likely to result in the destruction or adverse

modification of designated critical habitat (16 U.S.C. 1536(a)(2)). Section 7 also requires federal agencies to ensure such actions do not jeopardize the continued existence of the listed species:

Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

H. Authority to designate critical habitat is delegated to NMFS

The authority to designate critical habitat, including the authority to consider the impacts of designation, the authority to weigh those impacts against the benefit of designation, and the authority to exclude particular areas, has been delegated to the Assistant Administrator of the National Marine Fisheries Service. Department Organization Order 10-15 (5/24/04). NOAA Organization Handbook, Transmittal #34 (May 31, 1993).

I. Joint regulations govern designation

Joint regulations of the U.S. Fish and Wildlife Service (FWS) and NMFS in 50 CFR Part 424 govern the designation and revision of the critical habitats of listed species. Revisions to the joint regulations were published on August 27, 2019, and became effective on September 26, 2019. See 84 FR 45,020 (August 27, 2019). These revised regulations apply to all proposed critical habitat designations that are published after the effective date of September 26, 2019.

IV. Approach to the Designation

Based on statutory and regulatory direction, our approach to the critical habitat designation included the following steps:

- 1) Identify specific areas eligible for critical habitat designation.
 - a. Identify areas meeting the statutory definition of critical habitat.
 - b. Identify military areas ineligible for designation.
- 2) Conduct an ESA section 4(b)(2) analysis.
 - a. Determine the impacts of designation (or, in other words, the benefits of exclusion).
 - b. Determine the benefits of designation.
 - c. If appropriate, determine whether benefits of exclusion of any particular area outweigh benefits of designation and recommend exclusion.
 - d. Determine whether any recommended exclusions will result in the extinction of the species.

A. Specific areas eligible for critical habitat designation

Specific areas meeting the definition of critical habitat were determined following a thorough review of the best available scientific data regarding the life history and conservation needs of the humpback whale DPSs. The data and process used to determine the specific areas are provided in the Final

Biological Report (NMFS 2020). Nineteen specific areas were identified along the coasts of Alaska, Washington, Oregon, and California (see Figure 1).

To be eligible for designation as critical habitat under the ESA's definition of occupied critical habitat and implementing regulations (50 CFR 424.02), each specific area must contain at least one essential feature that may require special management considerations or protection now or in the future. An essential prey feature occurs in each of the 19 specific areas. A detailed description of each habitat unit is provided in the Final Biological Report (NMFS 2020).

An occupied specific area may be designated as critical habitat if it contains an essential feature(s) that "may require special management considerations or protection." Joint NMFS and FWS regulations define "special management considerations or protection" to mean "methods or procedures useful in protecting the physical or biological features essential to the conservation of listed species" (50 CFR 424.02). In determining whether an area has an essential feature(s) that may require special management considerations or protection, the Services do not base their decision on whether management is currently in place or whether that management is adequate. As noted above and as discussed in detail in NMFS (2020), the CHRT determined that the essential prey feature may require special management needs or special protections as a result of climate change, commercial fishing, marine pollution, and ocean noise.

Section 3(5)(A)(ii) of the ESA authorizes the designation of "specific areas outside the geographical area occupied at the time [the species] is listed" if these areas are essential for the conservation of the species. All of the areas included in the proposed designation are currently occupied by the relevant DPSs. We have not identified any unoccupied areas that are essential for the conservation of the listed humpback whales and are not designating any unoccupied areas for designation.

B. Areas ineligible for critical habitat designation

On October 10, 2018, through both formal letters and emails, we contacted representatives from branches of the Department of Defense (DOD; i.e., Navy, Army, Air Force) and the Department of Homeland Security (specifically, the U.S. Coast Guard (USCG)), and requested information regarding any geographical areas owned or controlled by DOD or USCG, or designated for its use, that may overlap with the areas under consideration as humpback whale critical habitat and that are subject to an INRMP. On November 16, 2018, we received copies of four Navy INRMPs that had been approved by FWS as meeting the requirements of the Sikes Act (16 U.S.C. 670a *et seq.*, as amended). The Navy also provided a separate description of how each of their approved INRMPs provides a conservation benefit to humpback whales. In November 2018, we received responses from the U.S. Air Force (USAF) indicating that the USAF neither owns nor controls any of the areas under consideration for humpback whale critical habitat designation, nor are they subject to an Air Force INRMP. We did not receive responses from the Army or USCG.

The Navy identified the following INRMPs for our consideration: 1) Pacific Beach Annex, WA; 2) Naval Base Ventura County, Point Mugu, CA; 3) Naval Outlying Field, San Nicolas Island, CA; and 4) Naval Auxiliary Landing Field, San Clemente Island, CA. An additional INRMP associated with the Navy's Southeast Alaska Acoustic Measurement Facility, AK (SEAFAC) was also identified as being under development.

The four approved Navy INRMPs address habitats located within critical habitat Units 18 and 19. After reviewing the information provided, we determined that the Pacific Beach Annex INRMP addresses an

entirely upland property and does not overlap with the areas under consideration for designation as critical habitat. Therefore, this INRMP was not considered further. Based on our initial review of the remaining three INRMPs per 50 CFR 424.12(h), the plans appeared to provide some conservation benefit to humpback whales. However, because each of the areas addressed by the INRMPs were very small relative the critical habitat units in which they are located (Units 18 and 19, and because a few additional components of the approved INRMPs were required from the Navy to complete our review (e.g., maps, appendices to an INRMP listing specific management activities), we tabled further review of these INRMPs while continuing with other, ongoing analyses under section 4(b)(2), which had the potential to lead to proposed exclusion of the larger specific area or areas.

A memorandum documenting our final determination regarding remaining applicable INRMPs was subsequently prepared and is included as Appendix A to this report. The memorandum documents our review of two areas - Naval Outlying Field, San Nicolas Island, California; and Naval Base Ventura County, Point Mugu, California – and concludes that both INRMPs confer benefits to humpback whales such that they are ineligible for designation as critical habitat. The boundaries of the relevant critical habitat area (i.e., Unit 18) were therefore delineated so that the areas covered by these INRMPs are not included in the critical habitat designation.

The areas addressed under the Naval Auxiliary Landing Field, San Clemente Island INRMP are entirely within Unit 19, which, as describe below in this report, and in the proposed and final rules, is excluded from critical habitat designation. In May 2020, after publication of the proposed critical habitat designations, the Navy notified us that the SEAFAC INRMP had been completed and was expected to soon be approved by FWS. The INRMP was approved and signed by FWS on May 29, 2020. We did not, however, consider this INRMP further to determine whether the areas addressed under the INRMP were ineligible for designation, because, as discussed in this report, the larger, specific area in which the SEAFAC facility is located (i.e., critical habitat Unit 10) was excluded from the critical habitat designation (for the MX DPS) on the basis of economic impacts.

C. Determining the impacts of designation

Section 4(b)(2) of the ESA provides that the Secretary shall consider certain impacts before designating critical habitat: “the Secretary shall designate critical habitat . . . on the basis of the best scientific data available and after taking into consideration the economic impact, impact to national security, and any other relevant impact of specifying any particular area as critical habitat.” Once impacts are determined, the provision allows the agency to weigh the benefits of excluding any particular area (that is, avoiding the economic, national security, or other costs) against the benefits of designating it (that is, the conservation benefits to the species). If the agency concludes that the benefits of excluding particular areas outweigh the benefits of designation, it has discretion to exclude the particular area(s), so long as the exclusion will not result in extinction of the species (16 U.S.C. 1533(b)(2)).

1. Identify “Particular Areas”

Section 3(5) of the ESA defines critical habitat as “specific areas,” while section 4(b)(2) requires the agency to consider certain factors before designating any “particular area.” Per implementing regulations at 50 CFR 424.19, the Secretary considers impacts at a scale that the Secretary determines to be appropriate. Depending on the biology of the species, the characteristics of its habitat, and the nature of the impacts of designation, “specific” areas might be different from, or the same as, “particular” areas. For this designation, we analyzed two types of particular areas. When we considered economic impacts, we used the same biologically-based “specific areas” we had identified under section 3(5)(A) (Units 1-19, Figure 1). This delineation allowed us to most effectively compare the biologically-

based conservation benefits of designation against economic benefits of exclusion. However, we may consider other (e.g., smaller) scales based on public comments received in response to the proposed critical habitat designation. Where we considered impacts on national security, however, we instead generally used a delineation of particular areas based on ownership, control, or designated use of the area. Similarly, where we considered impacts on Tribes, we used a delineation of particular areas that corresponded to tribal lands, resources, and associated treaty rights.

2. Economic Impacts

The primary impact of a critical habitat designation stems from the section 7(a)(2) requirement that federal agencies ensure their actions are not likely to result in the destruction or adverse modification of critical habitat. Determining this impact is complicated by the fact that section 7(a)(2) contains the often overlapping requirement that federal agencies must also ensure their actions are not likely to jeopardize the species' continued existence. The incremental economic impacts of critical habitat designation stem from the additional effort to consider potential adverse modification to the critical habitat as part of section 7 consultations, and any conservation efforts that are likely to be recommended to avoid adverse modification that would not likely be recommended to avoid jeopardy. Thus, the incremental impacts attributable to the proposed critical habitat designation stem from conservation efforts that would not otherwise be implemented due to the need to avoid jeopardy to humpback whales or due to other existing protections (e.g., for other listed species, other Federal, state, or local regulations or best management practices). Additional economic impacts of designation include state and local protections that may be triggered as a result of designation. However, as discussed in Chapter 3 of the Final Economic Analysis, we did not identify state or local protections that will be triggered by a proposed humpback whale critical habitat designation (IEc 2020).

To determine what activities may affect critical habitat for humpback whales and therefore potentially require section 7 consultation in the future, we reviewed our consultation history. Section 7 consultation records for 2007 to 2018 were obtained by searching the NMFS database for consultations that have addressed the 19 areas under consideration as critical habitat and consultations that have addressed humpback whales. We identified the following categories of activities with a federal nexus that may affect the essential prey feature: (1) commercial fishing, (2) oil and gas activities (including seismic surveys, and oil spill planning and response), (3) alternative energy development, (4) in-water construction (including dredging and offshore mining), (5) vessel traffic (specifically, activities related to establishment of the shipping lanes by the U.S. Coast Guard (USCG), and other USCG activities, including maintenance, repair, and replacement of aids to navigation), (6) aquaculture and hatcheries, (7) scientific research, (8) water quality management and inland activities (e.g., pesticide registration, establishment of water quality standards, Clean Water Act (CWA) general permits, power plant operations, land management pesticide/ herbicide application, and National Pollutant Discharge Elimination System (NPDES) permitting), (9) military activities, (10) liquefied natural gas (LNG) facilities and activities, (11) space vehicle and missile launches, and (12) U.S. Forest Service activities (activities related to timber and forest management). These activities have the potential to affect the essential feature by altering or reducing the quantity, quality, or the availability of the prey feature essential to the conservation of one or more of the listed DPSs of humpback whales.

The impacts stemming from section 7(a)(2) requirements associated with these categories of federal activities are described in detail in the Economic Analysis prepared by Industrial Economics (IEc 2020). To quantify the economic impacts associated with designating the 19 units of habitat under consideration, IEc applied the following general steps:

1. Identify the baseline of economic activity and the statutes and regulations that constrain that activity in the absence of the critical habitat designation;
2. Identify the types of activities that are likely to be affected by critical habitat designation;
3. Project over space and time the occurrence of the activities and the likelihood they will in fact need to be modified;
4. Estimate the costs of administrative effort and, where applicable, conservation efforts recommended for the activity to comply with the ESA's critical habitat provisions; and
5. Aggregate the costs up to the particular area level. The analysis reports impacts at the particular area level as both present value impacts and annualized impacts.

As part of completing steps 3 and 4 listed above, action subcategory and location data from the consultation records search (for 2007-2018) were used to compile a list of federal actions and projected number of those actions occurring in each of the 19 areas under consideration as critical habitat. Outreach to some federal and state agencies was also conducted by IEC to obtain additional information about planned activities. As applicable and appropriate, NMFS biologists were also consulted to verify the nature and number of consultations expected to occur over the next 10 years.

Ultimately, no specific, incremental conservation recommendations were identified as likely to result in the analysis largely due to baseline protections already in place (e.g., for listed species, designated critical habitat, and as a result of other legal protections; see IEC 2020). Therefore, costs quantified in the economic analysis include the additional administrative effort (for NMFS, a hypothetical Federal action agency, and a hypothetical third party) to consider critical habitat as part of future section 7 consultations. The analysis calculated the incremental administrative costs by multiplying the forecast of section 7 consultations by the estimated average administrative costs per consultation over a ten-year timeframe. The total present value and annualized administrative costs by critical habitat unit are projected to be low and are provided in Table 1. Overall, the economic analysis indicates that, if designated, the 19 units of critical habitat may increase administrative costs of consultations involving humpback whales by \$930,000 to \$1,000,000 over the next ten years, assuming a seven percent discount rate (IEC 2020). This equates to an annualized cost of \$110,000 to \$120,000 over the next ten years (IEC 2020). The largest portion of administrative costs are anticipated in Unit 10 (25 to 27 percent of total costs), followed by Unit 13 (9 percent) and Unit 17 (7 to 8 percent). In-water construction activities represent the largest share of the estimated costs (25 to 33 percent), while 27 to 30 percent of costs are associated with aquaculture activities, and 14 to 15 percent is associated with consultations regarding commercial fisheries (IEC 2020).

DPS	CRITICAL HABITAT UNIT(S)	DRAFT ECONOMIC ANALYSIS		FINAL ECONOMIC ANALYSIS	
		PRESENT VALUE IMPACTS (7% DISCOUNT RATE)	ANNUALIZED IMPACTS	PRESENT VALUE IMPACTS (7% DISCOUNT RATE)	ANNUALIZED IMPACTS
Mexico and Western North Pacific	1	\$3,800	\$430	\$20,000	\$2,300
Mexico and Western North Pacific	2	\$6,100 - \$21,000	\$690 - \$2,400	\$23,000 - \$39,000	\$2,600 - \$4,400
Mexico and Western North Pacific	3	\$3,800 - \$7,100	\$430 - \$810	\$20,000 - \$24,000	\$2,300 - \$2,700
Mexico and Western North Pacific	4	\$5,900 - \$7,500	\$680 - \$860	\$23,000 - \$24,000	\$2,600 - \$2,800
Mexico and Western North Pacific	5	\$25,000 - \$31,000	\$2,800 - \$3,600	\$41,000 - \$48,000	\$4,600 - \$5,400
Mexico and Western North Pacific	6	\$30,000 - \$33,000	\$3,400 - \$3,700	\$46,000 - \$49,000	\$5,200 - \$5,600
Mexico and Western North Pacific	7	\$9,100	\$1,000	\$23,000	\$2,600
Mexico and Western North Pacific	8	\$15,000	\$1,800	\$30,000	\$3,400
Mexico and Western North Pacific	9	\$9,100	\$1,000	\$23,000	\$2,600
Mexico	10	\$110,000 - \$160,000	\$12,000 - \$18,000	\$230,000 - \$280,000	\$26,000 - \$32,000
Mexico and Central America	11	\$60,000 - \$66,000	\$6,800 - \$7,500	\$66,000 - \$72,000	\$7,500 - \$8,200
Mexico and Central America	12	\$56,000	\$6,300	\$61,000	\$6,900
Mexico and Central America	13	\$76,000 - \$82,000	\$8,600 - \$9,400	\$83,000 - \$90,000	\$9,500 - \$10,000
Mexico and Central America	14	\$20,000	\$2,300	\$22,000	\$2,600
Mexico and Central America	15	\$14,000	\$1,600	\$15,000	\$1,700
Mexico and Central America	16	\$24,000	\$2,700	\$26,000	\$3,000
Mexico and Central America	17	\$64,000	\$7,200	\$70,000	\$7,900
Mexico and Central America	18	\$31,000	\$3,500	\$34,000	\$3,900
Mexico and Central America	19	\$44,000 - \$46,000	\$5,000 - \$5,200	\$49,000 - \$50,000	\$5,500 - \$5,700
All DPS	All Units	\$22,000	\$2,500	\$23,000	\$2,600
Total		\$630,000 - \$720,000	\$72,000 - \$82,000	\$930,000 - \$1,000,000	\$110,000 - \$120,000

Table 1. Estimated economic impacts for the 19 units of critical habitat under consideration. Humpback whale DPSs occurring in each unit is also indicated. Table taken from the Final Economic Analysis (IEc 2020).

These impacts are largely associated with the administrative costs borne by NMFS and other Federal agencies. However, some consultations may include third parties (e.g., private party, landowners, local municipality), some of which may also qualify as small entities. These third parties may bear some portion of the administrative consultation costs. Ultimately, the analysis found that consultations on in-water and coastal construction and aquaculture activities may generate costs borne by small entities. All other activities are either not expected to involve small entities or are associated with no more than one consultation per year spread across the entire critical habitat. The analysis indicates that consultations for in-water construction activities will mainly be for activities forecasted to occur in Unit 10 (Southeast Alaska), and estimates that the small entities involved with consultations on these activities will incur \$5,200 in annualized administrative costs (IEc 2020). Additionally, the analysis anticipates 12 consultations per year on aquaculture activities in Alaska. This analysis anticipates that third parties involved in these consultations will incur \$5,300 in annualized administrative costs.

Although not quantified, the FEA also evaluated and discusses other potential categories of impacts that may result from the critical habitat designation – e.g., the potential for costs of additional conservation efforts that may be recommended through consultation (e.g., reasonable and prudent alternatives, conservation recommendations), as well as the potential for indirect impacts (not related to section 7 outcomes), such as project delays or regulatory uncertainty. These qualitative discussions of potential unquantified impacts and the associated uncertainty provided additional context for the quantified costs during the process of weighing the benefits of excluding particular areas from the critical habitat designation against the benefits of including those areas.

3. National Security Impacts

As noted previously, section 4(b)(2) of the ESA requires NMFS to take into consideration the impact on national security of specifying any particular area as critical habitat. National security impacts resulting from the designation depend on whether the designation would add new burdens beyond those related to consideration in future consultations of the likelihood of an agency action jeopardizing listed species' continued existence. Anticipated interference with mission-essential training, testing, or unit readiness, either through delays in critical training and testing activities or through expected requirements to modify the action to prevent adverse modification of critical habitat, are possible negative impacts of critical habitat designations.

To gather information on potential national security impacts, we contacted representatives from DOD and the Department of Homeland Security (DHS) by letter dated October 9, 2018, regarding impacts of a potential critical habitat designation for humpback whales on military operations and national security. To inform their consideration of potential impacts, we also provided maps and descriptions of the areas under consideration for designation as humpback whale critical habitat. Requests for exclusions are summarized below and discussed further in Section V.B. of this report.

The USAF initially requested exclusion of portions of Unit 5, 7, and 8 (Figure 2). However, following subsequent discussions with USAF representatives, the USAF withdrew their requests for exclusions.

On December 5, 2018, the Navy provided a written assessment of potential national security impacts and detailed descriptions of training and testing operations occurring in the following ranges:

- (1) Gulf of Alaska Temporary Maritime Activities Area (GOA TMAA), which overlaps with portions of critical habitat Units 5, 7, and 8;

- (2) Southeast Alaska Acoustic Measurement Facility (SEAFAC), which lies within critical habitat Unit 10;
- (3) Quinault Range Site (QRS; a component of the Naval Undersea Warfare Center Division Keyport Range Complex), which overlaps with a portion of Unit 11;
- (4) Pacific Northwest Ocean Surface/Subsurface Operating Area (OPAREA, a component of the Northwest Training Range Complex (NWTRC) and within the Northwest Training and Testing Study Area (NWTT)), which overlaps with portions of Units 11-15;
- (5) Southern California Range Complex (SOCAL) portion of the Hawaii-Southern California Training and Testing Study Area (HSTT), which overlaps with Unit 19; and,
- (6) Point Mugu Sea Range (PMSR), which overlaps with portions of Unit 17, 18, and 19.

Based on their consideration of ongoing and planned Naval operations, the location of the potential critical habitat areas, and the essential biological feature of prey, the Navy concluded that, at that time, they did not anticipate national security impacts resulting from a critical habitat designation that overlapped with the GOA TMAA, OPAREA, and PMSR. The Navy indicated that there were, however, anticipated national security impacts for operations at SEAFAC, QRS, and SOCAL, and requested that these range areas be excluded from the proposed humpback whale critical habitats.

SEAFAC is a relatively small area, covering 48 nmi² (164 km²) in the Western Behm Canal near the city of Ketchikan, Alaska, and serves as the Navy's primary acoustic engineering measurement facility in the Pacific. This facility comprises an instrumented site that has in-water assets (such as piers, hydrophones, sensors, and in-water communication systems) that may be deployed on permanent or long-term bases, and an adjacent land-based support site located within 15 acres (0.06 km²) on Back Island. This area is under Navy controlled restricted use, and no other federal activities are expected to occur in this area. Public access to SEAFAC areas can be restricted by the Navy with notification in accordance with 33 CFR 334.1275. Testing activities planned for the foreseeable future include, but are not limited to, submarine sonar testing/maintenance, acoustic component testing, countermeasure testing, and hydrodynamic and submarine maneuverability testing. Although the Navy indicated they did not anticipate impacts to humpback whale critical habitat or humpback whale prey as a result of the majority of current testing activities, they expressed concern regarding future testing activities. They specifically noted that this area is used to evaluate cutting edge systems and platforms, which could affect future determinations regarding impacts on the habitat. The Navy discussed that the nature of the testing that is undertaken at this site requires prescriptive procedures and use of specific areas and that any additional mitigation resulting from a critical habitat designation has the potential to impact military readiness by impeding the testing of new systems, platforms, and capabilities. The Navy stated that any impact on the full utilization of SEAFAC would impact their ability to perform critical research, development, test and evaluation activities, thereby impacting military readiness and national security.

The QRS is a defined space off the coast of Washington that encompasses air, surface (~5,228 nmi² (6,924 km²)) and subsurface space (with variable depths up to 1.8 km), as well as a surf zone area off the coast of Pacific Beach, Washington. The QRS overlaps with approximately 44 percent of Unit 11, which covers an area of 3,441 nmi² of marine habitat. Access to areas within the QRS is controlled during testing events for public safety and to prevent damage to test equipment. Activities planned in the QRS for 2020 and beyond include activities such as at-sea sonar testing, anti-submarine warfare testing, acoustic and oceanographic research, countermeasure testing, torpedo testing, undersea warfare testing, etc. The Navy stated that use of explosives within the QRS is likely to have adverse effects on humpback prey species, but not at the population level. The Navy concluded that humpback whale critical habitat would impact the ability of the Navy to test and field new systems and platforms and

thus impact national security if ESA section 7 consultations resulted in additional mitigation requirements or restrictions on testing activities in the QRS.

Subsequent to their initial request for exclusion of QRS, the Navy conducted further analysis and, in September 2019, submitted additional information relative to this particular national security exclusion. Specifically, the Navy requested that an additional 10-km buffer around QRS be excluded to avoid impacts to ongoing and future testing activities that would result should Naval Sea Systems Command have to halt, reduce in scope, or geographically/seasonally constrain testing activities to prevent adverse effects or adverse modification of critical habitat. The Navy determined that sound and energy levels that may cause injuries to humpback whale prey species within critical habitat from the largest explosives that could be used on the range could extend beyond the QRS boundaries, and that excluding a buffer of 10-km around QRS from the critical habitat designation would avoid additional mitigation requirements on activities within the QRS. The Navy indicated that they determined this specific buffer distance after taking into account the site specific oceanographic conditions and the best available science establishing fish injury thresholds (which Navy cited as Popper *et al.*, 2014) to determine the range or distance to which fish (i.e., humpback whale prey species) may be injured from the use of explosives.

The SOCAL range complex is located between Dana Point and San Diego, CA and extends more than 1,111 km southwest into the Pacific Ocean. Most activities occur within the eastern portion of the SOCAL range complex, closer to shore and to the Navy's largest homeport location in the Pacific. The spatial extent of overlap between the SOCAL range and Unit 19 is 10,731.5 nmi² (36,808 km²), which is approximately 54 percent of the Navy's core training area within SOCAL and approximately 83 percent of Unit 19, which measures 12,966 nmi² (44,472.1 km²). A wide variety of training and testing activities occur within the SOCAL range complex on a routine and sometimes fairly high frequency basis. A few types of Navy testing activities in this area are those related to anti-submarine warfare, torpedo, mine countermeasure, gun, missile and rocket, and propulsion testing. The activities that occur in the SOCAL range complex have the potential to impact the water surface or water column, with the degree of impact depending on the nature of the particular activity. The Navy referred to the detailed discussions on particular impacts provided in the Navy's 2018 Final Environmental Impact Statement for Hawaii-Southern California Training and Testing. Ultimately, the Navy concluded that designation of Unit 19 as critical habitat could lead to requirements for additional mitigations (avoidance, geographical or seasonal limitations, etc.) that could hinder Navy testing and training activities, and thereby impact military readiness and national security. Therefore, Navy requested that we exclude Unit 19 from any critical habitat designation.

4. Other Relevant Impacts

Section 4(b)(2) of the ESA also allows for the consideration of other relevant impacts associated with the designation of critical habitat. We identified potential impacts on federally recognized tribes as a possible source of other impacts relevant to the humpback whale critical habitat designation.

A broad array of activities that occur on Indian lands may trigger ESA section 7 consultations. Indian lands are those defined in Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997), and include: (1) lands held in trust by the United States for the benefit of any Indian tribe; (2) land held in trust by the United States for any Indian tribe or individual subject to restrictions by the United States against alienation; (3) fee lands, either within or outside the reservation boundaries, owned by the tribal government; and (4) fee lands within the reservation boundaries owned by individual Indians. Executive Order 13175 on Consultation

and Coordination with Indian Tribal Governments outlines the responsibilities of the Federal Government in matters affecting tribal interests. Section 161 of Public Law 108–199 (188 Stat. 452), as amended by section 518 of Public Law 108–447 (118 Stat. 3267), directs all Federal agencies to consult with Alaska Native corporations on the same basis as Indian tribes under E.O. 13175. Consistent with these orders, we coordinate and consult with affected Indian tribe(s) when considering the designation of critical habitat in an area that may impact tribal trust resources, tribally-owned fee lands, or the exercise of tribal rights.

As all of the specific areas under consideration as potential critical habitat area were located seaward of the coast line, there were no Indian lands subject to consideration for possible exclusion. However, the areas we were considering for designation as critical habitat overlap with areas used by Indian tribes and Alaska Natives for subsistence, cultural, usual and accustomed fishing, or other purposes. Thus, at an early stage in the course of developing a proposed critical habitat rule, we contacted all potentially affected tribes and native communities in Alaska. In particular, in coordination with the NMFS regional tribal liaison, we sent out 27 individual letters to tribes located in Washington, Oregon, and California, and 149 individual letters to tribes and tribal organizations located within Alaska to offer the opportunity to consult on critical habitat for humpback whales and discuss any concerns they may have. We provided maps and descriptions of all areas under consideration as potential critical habitat, and we (1) invited input regarding tribal resources and issues, usual and accustomed areas, or the exercise of tribal rights that may be affected by a coastal critical habitat designation for humpback whales; (2) requested any information to assist us in determining the conservation value of nearshore areas of Indian lands as well as other possible areas of interest to the tribes, such as deep-water habitats outside the nearshore areas; and (3) invited discussion on the tribal government’s position regarding the designation of those areas as critical habitat.

Prior to publication of the proposed rule (84 FR 54354, October 9, 2019), we received no requests for consultation in response to our outreach efforts. However, in November 2018, we received requests for technical-to-technical meetings from two tribes, the Quileute Tribe and the Quinault Indian Nation. The tribes were primarily concerned about the potential impact of the critical habitat designation on tribal fisheries within their usual and accustomed fishing areas located in coastal marine waters off Washington. A technical meeting with representatives from the Quinault Indian Nation was held on December 14, 2018, to share information and discuss concerns regarding a designation of critical habitat for humpback whales. Immediately following that meeting, we provided additional materials, in particular references and maps that had been requested during the technical-to-technical meeting. Subsequent to this meeting and follow-up correspondences, the Quinault tribe indicated they did not intend to submit formal comment or information regarding impacts on tribal resources or treaty rights, nor did they request additional meetings. We corresponded multiple times with representatives from the Quileute Tribe and attempted to schedule a meeting to discuss potential impacts of a critical habitat designation on treaty reserved resources and rights. Ultimately, a meeting did not occur, but we continued to invite input from the tribe on the development of a proposed designation. Neither the Quinault or the Quileute Tribe requested a government-to-government consultation.

Following publication of the proposed rule, and in coordination with the NMFS regional tribal liaison, we sent email notifications to West Coast tribes and Alaska Native partners to solicit their input on the proposed rule. In response, we received a letter, dated January 22, 2020, from the Sun’aq Tribe of Kodiak (STK), stating that, based on the available information, the STK did not believe the humpback whale critical habitat designation would adversely impact the Kodiak Archipelago economy. They also stated that if the designations are finalized, annual consultations should be conducted to provide

opportunities to present any new information about subsistence or economic impacts. We also received separate requests for meetings from the Bristol Bay Marine Mammal Council, the Aleut Marine Mammal Commission, and the Indigenous People's Council for Marine Mammals. During November and December 2019, we participated in separate meetings with each of these organizations to provide an overview of the proposed designations, provide any clarifications about the proposed rule, and discuss any concerns regarding potential impacts of the designations on subsistence and tribal fishing activities. As a means of additional outreach, we also attended the Bureau of Indian Affairs Annual Provider's Conference on December 4, 2019, in Anchorage, Alaska, to provide a presentation on the proposed designations, answer any clarifying questions, and invite input on the proposed rule.

Lastly, we received a letter, dated January 13, 2020, from Shaan-Seet, Inc., the Alaska Native Village Corporation for Craig, Alaska, indicating that they had not been directly contacted about the proposed rule, and that they opposed the designation of critical habitat in Southeast Alaska. Their letter stated that the City of Craig, Alaska and the larger census area had been devastated by the loss of many industries, and that implementation of the critical habitat for humpback whales may cause further harm. To address our oversight, in February 2020, we contacted Shaan-Seet, Inc. and acknowledged that, while the Craig Tribal Association was on our contact list, Shaan-Seet, Inc. had been inadvertently omitted from our list of contacts, and was thus not contacted directly about the proposed rule. We inquired about the potential impacts and concerns mentioned in their letter; however, the Shaan-Seet, Inc., president advised us to contact the Craig Tribal Association directly to discuss any potential concerns regarding the critical habitat. During February and March 2020, we reached out to the Craig Tribal Association's tribal administrator to discuss the proposed critical habitat designations and consult with them regarding the potential impacts of a critical habitat designation on the tribe. We were informed on March 5, 2020, that this topic would be raised at an upcoming meeting. During subsequent communications with the tribe, the tribe indicated that they did not intend to take any further action on this matter, and they did not request further meetings or consultation.

Ultimately, through our additional outreach efforts following publication of the proposed rule, we did not identify any specific tribal impacts that are likely to result from the designation of critical habitat for humpback whales, nor did we receive any information indicating that the designations were likely to result in impacts to tribal interests. Thus, we have not excluded any particular areas under section 4(b)(2) of the ESA based on impacts to tribes or Alaska Native corporations. In addition, based on results of other aspects of the section 4(b)(2) analysis, we had determined to exclude Southeast Alaska (Unit 10) from the final critical habitat designation. Thus, the critical habitats do not overlap with the Craig Tribe's subsistence, cultural, or usual and accustomed fishing areas.

As described in the FEA (IEc 2020), while it is possible that the critical habitat designation could result in recommendations for changes in fishery management, we consider this unlikely at this time, given the existing requirement to consider the effect of harvesting prey on the listed humpback whales and the high level of existing federal fisheries management measures that serve to reduce take of humpback whale prey species (e.g., prohibition on commercial krill fishing in U.S. EEZ (50 CFR 660.505), prohibition on directed fishing in Alaska waters for forage fish species, including capelin and sand lance (50 CFR Part 679.20)).

D. Determining the benefits of designation

The primary benefit of critical habitat designation stems from the ESA's section 7 requirement that all federal agencies ensure that their actions are not likely to destroy or adversely modify the designated critical habitat. This benefit is in addition to the requirement that all federal agencies ensure their

actions are not likely to jeopardize the species' continued existence. Another benefit of designation is that it provides notice of areas and features important to the species' conservation, and information about the types of activities that may reduce the conservation value of the habitat. Critical habitat designation may also trigger protection under state or local regulations.

In addition to the direct benefits of critical habitat designation to the whales, there may be ancillary benefits. These other benefits may be economic in nature, or they may be expressed through beneficial changes in the ecological functioning of the designated areas. Chapter 4 of the Final Economic Analysis (IEc 2020) discusses other forms of benefits that may be attributed to the conservation and recovery of humpback whales (although not specifically attributed to the designation of critical habitat), including use benefits (e.g., for wildlife viewing), non-use benefits (e.g., existence values), and ancillary ecosystem service benefits (e.g., water quality improvements and enhanced habitat conditions for other marine and coastal species). Humpback whales are also valued in terms of the utility gained from whale watching experiences. In Washington, Oregon, California, and Alaska, humpback whales are a target species for whale watchers (IEc 2020). Whale watch participants in these states generate tens of millions of dollars in economic activity annually (Pendelton 2006). Although humpback whales have value to people nationally and serve as an economic engine regionally, we are unable to apply the available literature to quantify or monetize associated use and non-use economic benefits that would be attributable to a critical habitat designation. More information about these types of benefits and values may be found in Chapter 4 of the Economic Analysis (IEc 2020).

Ideally, the benefits of designation would be monetized so they could be directly compared to the economic benefits of excluding a particular area. However, sufficient and relevant data are not available to monetize the benefits of designation (e.g., estimates of the monetary value of the protecting the feature within areas designated as critical habitat, or the monetary value of education and outreach benefits). Such an effort is also challenged by the fact that we cannot isolate and quantify the effect that a critical habitat designation would have on recovery of humpback whales separate from other ongoing or planned conservation actions. Furthermore, it is difficult to accurately predict the future harm to the habitat that would have otherwise been realized without the protections associated with critical habitat. Ultimately, given these challenges and lack of sufficient information, we are unable to quantify or monetize associated incremental use and non-use economic benefits of designating particular areas. As an alternative approach, we can assess the benefits of designation using a biologically-based analysis of the specific areas. Specifically, we considered relevant humpback whale datasets to qualitatively rate the conservation impact or value for the species if the given area were designated as critical habitat. These qualitative conservation value ratings were then used to represent the benefit of designation.

The Final Biological Report (NMFS 2020) provides a detailed discussion of the methods and datasets used by the CHRT to systematically assign a qualitative conservation value rating to each of the habitat units under consideration. Conservation values were assigned to each habitat unit and for each DPS using multiple types of data regarding habitat use and quality and a structured decision-making process, which is also discussed in detail in the Final Biological Report. The multiple datasets and references considered by the CHRT provided information about the level of use of the different units by whales of each particular DPS, as well as the importance of the areas for humpback whale feeding in general. (References and compiled datasets are provided in the Final Biological Report.) Essentially, habitat units receiving a higher conservation value rating by CHRT members are ones considered to be used by a relatively larger percentage of the DPS and contain higher quality feeding habitat. Conversely, habitat units receiving a low conservation value rating are ones considered by the CHRT to support only a small percentage of the whales from the given DPS, and are not considered to, or are not known to, contain

high quality feeding habitat. Ratings were assigned to units by CHRT members through an iterative, voting process (NMFS 2020). All units were rated for each DPS according the following qualitative scale (see Figures 2-4):

(1) very high – meaning areas where the available data indicate the area is very important to the conservation of the DPS;

(2) high - meaning areas where the available data indicate the area is important to the conservation of the DPS;

(3) medium - meaning the available data indicate the area is moderately important to the conservation of the DPS; and,

(4) low conservation value - meaning the available data suggest the DPS does not rely on this area for feeding.

V. Section 4(b)(2) Analysis

A. Weighing Economic Impacts Against Benefits of Designation

We reviewed the estimated economic impacts and considered these costs in relationship to the conservation ratings assigned to each of the critical habitat units (Table 2). For each particular area, we then considered whether the benefits of exclusion (estimated costs) outweigh the benefits of designation (relative conservation values).

As noted previously, the economic impacts to Federal agencies and non-federal entities of designating each of the 19 habitat units are projected to be fairly low, with estimates of annualized impacts ranging from \$1,700 - \$32,000 per habitat unit (see Table 1). The total annualized impact, if all 19 units were designated, was estimated to range from \$110,000 to \$120,000 over the next 10 years (IEc 2020). This estimated economic impact is well below what is typically considered as high or significant in terms of economic value or impacts – a high economic value is typically one that is above several million dollars (sometimes tens of millions), and a medium value may fall between several hundred thousand and millions of dollars. Critical habitat has recently been proposed for Southern Resident Killer (SRKW) whales within coastal marine areas that overlap spatially with the humpback whale critical habitat Units 11-18 along Washington, Oregon, and most of California, and which was estimated to have an annualized impact of \$68,000 (IEc 2019). The estimated annualized cost estimate for the combined 19 critical habitat units for humpback whales is only about 1.7 times greater than this cost estimate, despite the 19 units of humpback whale critical habitat being almost 18 times larger than the critical habitat area proposed for the SRKWs (11,800 nmi² for SRKWs versus 207,909 nmi² for 19 units of humpback whale habitat). This outcome is due largely to the greater number of economic activities within the more coastal critical habitat areas of the SRKWs relative to the more offshore habitats of humpback whales in this region. However, the probable economic impacts projected for the humpback whale critical habitat are still comparatively very low even when all of the habitat units are considered.

Results of the biological and economic analyses (Table 2) indicate that habitat units rated as having very high or medium conservation value for the WNP DPS, are associated with annualized impacts ranging from \$2,300 - \$2,700 (Unit 3, Shumagin Islands Area) to \$4,600- \$5,400 (Unit 5, Kodiak Island Area). (Note, there were no high conservation value areas for the WNP DPS). For the CAM DPS, habitat units rated as having very high, high, and medium conservation value are associated with annualized impacts

ranging from \$1,700 (Unit 15, California North Coast) to \$10,000 (Unit 13, Coastal Oregon). Similarly, for the MX DPS, units assigned a very high and high conservation value are associated with annualized impacts ranging from \$1,700 (Unit 15, California North Coast) to \$10,000 (Unit 13, Coastal Oregon), and

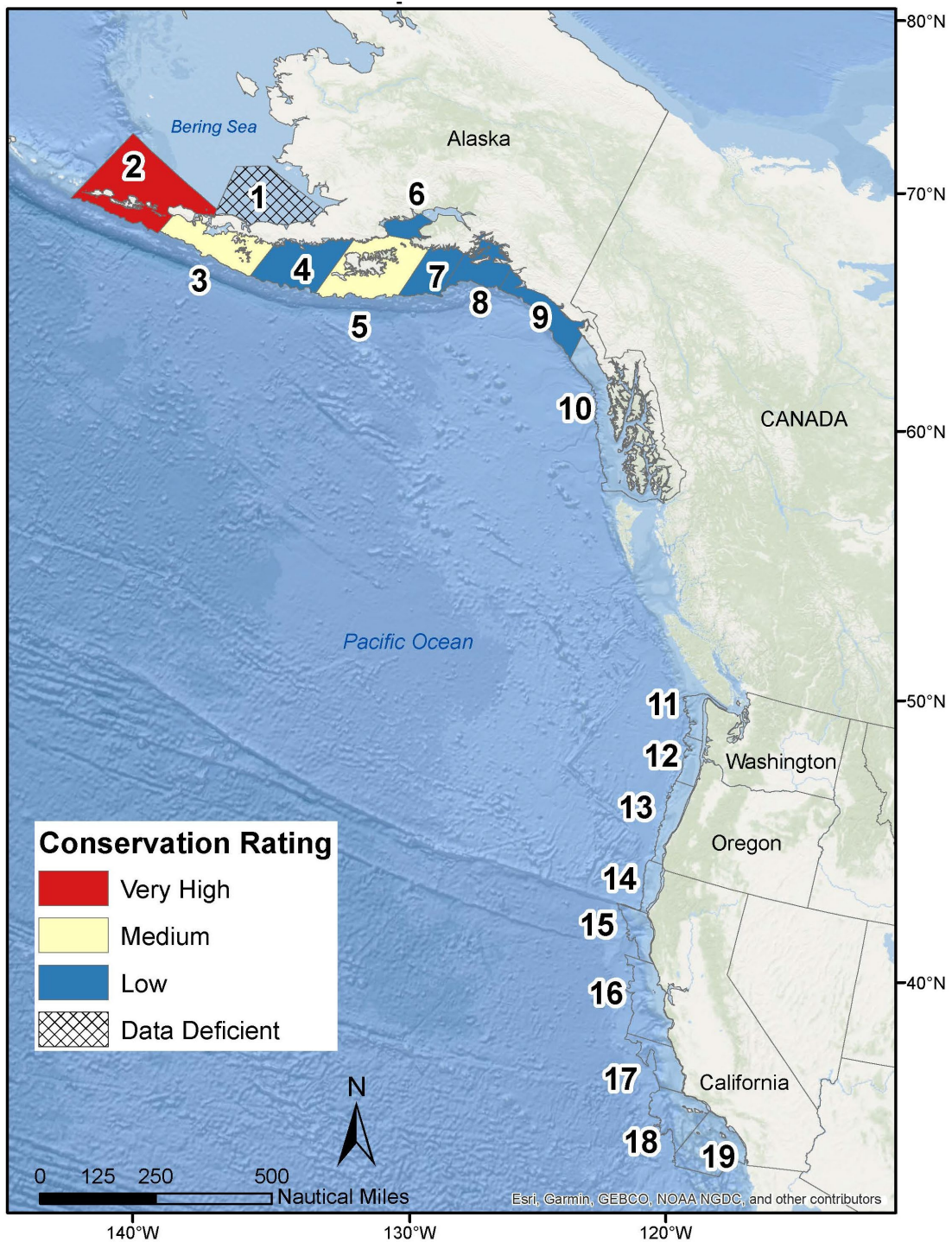


Figure 2. Conservation value ratings for habitat units of the WNP DPS (i.e., Units 1-9). Note that Unit 1 was not rated and was instead categorized as “data deficient.”

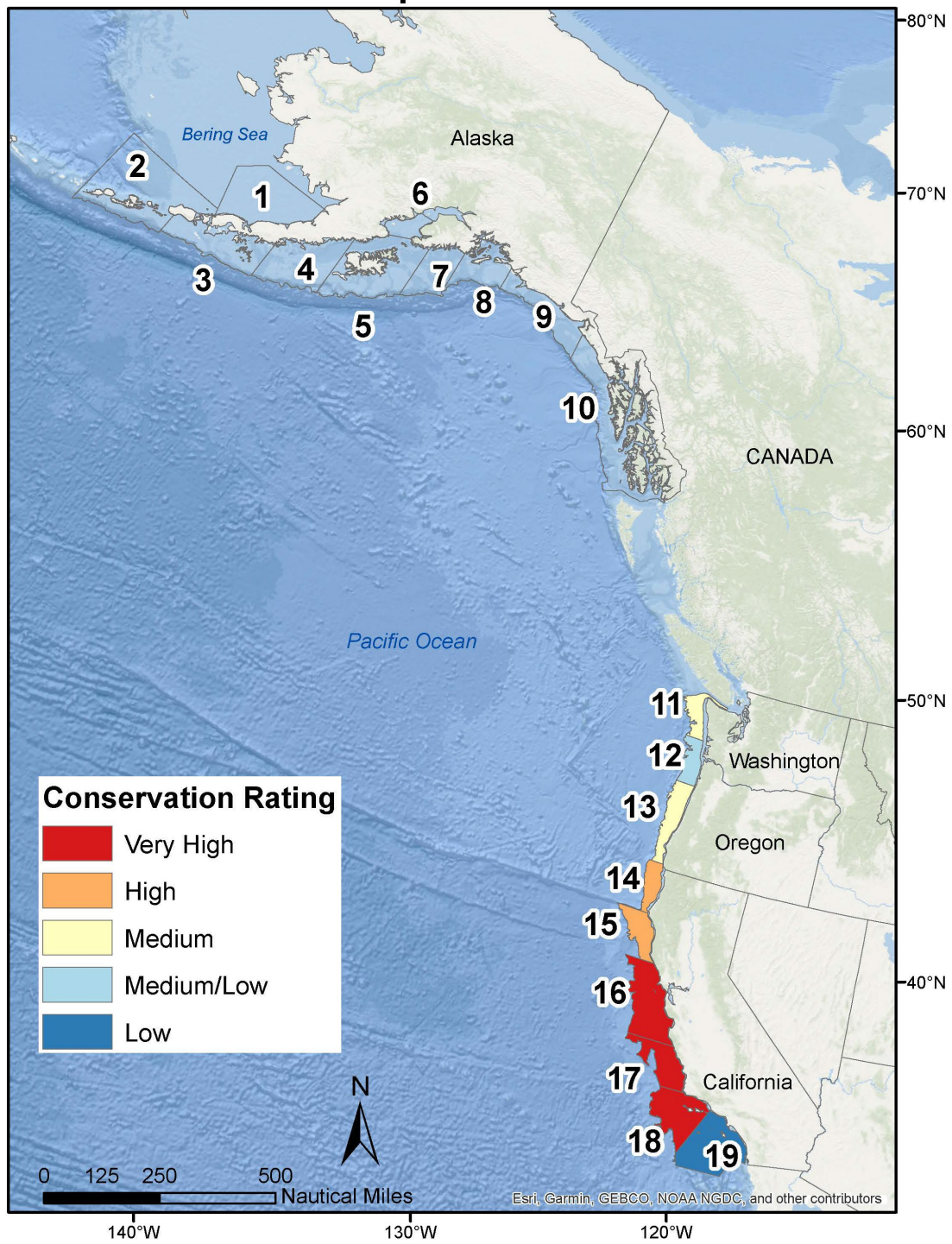


Figure 3. Conservation value ratings for habitat units of the CAM DPS (i.e., Units 11-19).

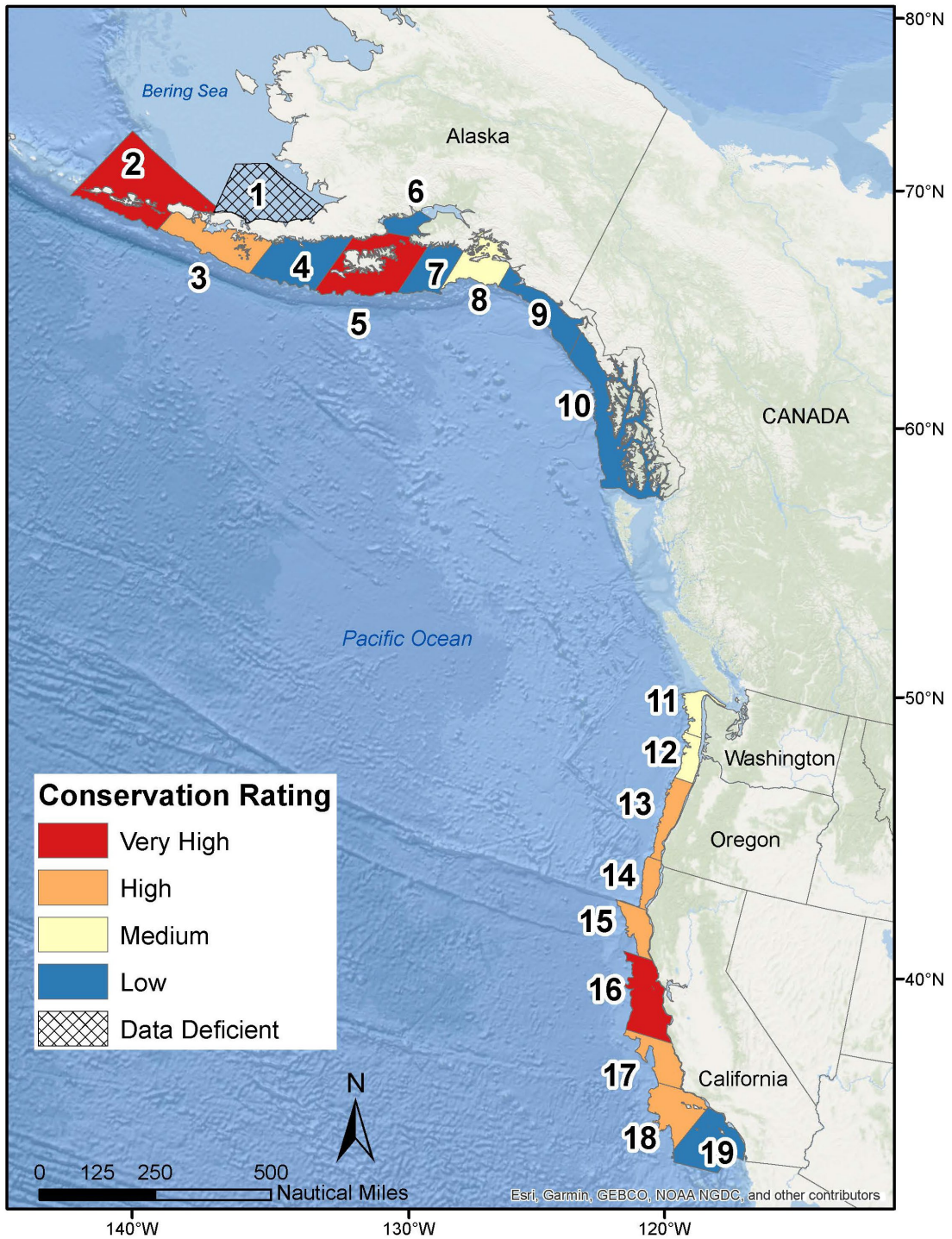


Figure 4. Conservation value ratings for habitat units occupied by the MX DPS (i.e., Units 1-19). Note that Unit 1 was not rated and was instead categorized as “data deficient.”

areas rated as having medium conservation value for the MX DPS are associated with annualized costs ranging from \$3,400 (Unit 8, Prince William Sound) to \$8,200 (Unit 11, Coastal Washington). After reviewing the costs and conservation values for each specific area and for each DPS, we concluded that the conservation value of habitat units with very high, high, and medium ratings were not outweighed by the estimated costs attributed to any of those units. These higher value feeding areas are viewed as being critical in supporting the overall life history needs and recovery of the particular DPS, and the benefits of designating these areas as critical habitat are not outweighed by the relatively low economic impacts projected to occur as a result of their designation.

In terms of low conservation value areas, the estimated annualized economic impacts ranged from \$2,600- \$5,600 across all of the low conservation value areas for the WNP DPS. With the exception of Unit 6, for each of these low conservation value areas, the FEA indicates that consultations on “aquaculture and hatcheries” activities were forecasted to result in the greatest costs and the greatest number of consultations if these areas were designated as critical habitat. The analysis also discussed that the forecasted rate of consultations for these activities may be an underestimate, as the State of Alaska expects that this rate may increase over time. Each of these low value habitat units, based on the CHRT’s assessment of the best available data, are areas the WNP DPS whales are not expected to rely on extensively for feeding given their very low occurrence or predicted occurrence in these area relative to areas with higher conservation value ratings (and relative to feeding areas outside of U.S. waters). In addition, with the exception of Unit 8 (Prince William Sound), none of the low conservation value areas for the WNP DPS contain a recognized Biologically Important Area (BIA; see NMFS 2020 for discussion of BIAs). Although WNP DPS whales have been sighted within the Gulf of Alaska region, whales from the WNP DPS have not been documented to occur specifically within Unit 8. Overall, we find that the potential conservation benefits of designating the low conservation value areas (see Figure 5) for the WNP DPS are outweighed by the associated economic impacts of designating these areas. We also find that exclusion of these areas will not result in the extinction of this DPS, which, based on the best available data, is considered to rely on other feeding areas to a much greater extent. Therefore, we exclude the following areas from the critical habitat designation for the WNP DPS based on a comparison of the benefits of designation to the economic impacts of designation: Unit 4 – Central Peninsula Area, Unit 6 – Cook Inlet, Unit 7 – Kenai Peninsula Area, Unit 8 – Prince William Sound Area, and Unit 9 – Northeastern Gulf of Alaska.

As discussed in detail in the Final Biological Report (NMFS 2020), humpback whales from the WNP DPS have been sighted in feeding areas Russia, primarily Kamchatka, as well as off the eastern Aleutian Islands, in the Gulf of Alaska, and off the northern and southern coasts of British Columbia (Figure 1, Calambokidis *et al.* 2001, Barlow *et al.* 2011). Based on analyses of photo-identification data collected during a comprehensive study conducted in 2004-2006 throughout the North Pacific (i.e., Structure of Populations, Levels of Abundance and Status of Humpbacks study or the “SPLASH study”), WNP DPS whales have a high predicted probability of moving from their winter breeding areas to the feeding areas off the Aleutian Islands/Bering Sea (Wade 2017). Predicted movement probabilities decline to zero for the feeding regions to the west and south within the Gulf of Alaska and in Southeast Alaska (Wade 2017). This distribution pattern informed the assessment of the conservation value of particular habitat units (see NMFS 2020). However, because SPLASH surveys occurred west of, and did not occur within Unit 1 (Bristol Bay Area), these results do not directly apply to Unit 1. Given the lack of photo-identification data for Unit 1, the CHRT could not assess the level to which WNP DPS whales occur in this particular area; and, rather than assigning a relative conservation value rating, the majority of the CHRT categorized Unit 1 as “data deficient.” Three CHRT members, who felt they could assess the conservation value of this area based on the available data, also indicated that there was a high degree

of uncertainty associated with this particular area and spread their “votes” across the high, medium, and low conservation value categories (with 3, 7, and 2 votes, respectively). Given the available information regarding the documented distribution of WNP DPS whales (see NMFS 2020), we conclude that the conservation benefit of designating Unit 1 for the WNP DPS is outweighed by the economic impact of designating this area (annualized impact of \$2,300). (As with Units 4, 7, 8, and 9, the greatest source of costs in Unit 1 was for consultations on “aquaculture and hatchery” activities, which was an order of magnitude greater than any other category of costs (IEc 2020).) Given the available data indicating that WNP DPS whales primarily use other feeding areas, including areas outside U.S. waters, we also conclude that exclusion of this particular area will not result in extinction of this DPS. Therefore, the final critical habitat designation for the WNP DPS does not include Unit 1 – Bristol Bay Area.

The endangered CAM DPS of humpback whales uses feeding areas along the West Coast of the United States and also British Columbia, Canada. Unit 19, off the southern coast of California, was rated as having low conservation value for the CAM DPS. The annualized costs associated with this low conservation area are estimated to range from \$5,500 - \$5,700 and are largely driven by costs associated with consultations on “military activities,” “commercial fishing,” and “in-water construction.” This area has the lowest predicted abundances of humpback whales during summer months as well as during cooler months (Becker *et al.* 2016 and 2017; see Figures 17, NMFS 2020). Unit 19 is also not recognized as important feeding habitat for humpback whales and does not contain a feeding BIA. We find that the conservation benefits of designating this particular area are outweighed by the associated economic impacts. We also find that exclusion of this one habitat unit from the critical habitat designation for the CAM DPS will not result in extinction of this DPS (see Figure 6).

Unit 12 (Columbia River Area) received a conservation value rating of “medium/low” for the CAM DPS as a result of tie in the votes among CHRT - half of the votes were cast for “low” and the other half were cast for “medium” (Figure 6). While sightings of CAM DPS whales are lower off the coast of Washington and Oregon relative to areas farther south (Calambokidis *et al.* 2017), the predicted movement probabilities for whales of the CAM DPS whales to this general area are fairly high (Wade 2017). This unit does not contain a BIA; however, the available data indicate that this area contains sufficient abundances of prey to support humpback whale feeding and also suggest that the area off the Columbia River mouth is a high use feeding area for humpback whales (NMFS 2020). Overall, we concluded that the conservation value of this unit for the endangered CAM DPS is not outweighed by the low estimated economic impacts (\$6,900, Table 2B), which were spread across multiple categories of federal activities (e.g., in-water construction, aquaculture, commercial fisheries, water quality management, and scientific research).

Areas rated as having low conservation value for the MX DPS occur within all of the regions used by this DPS and are associated with estimated annualized impacts ranging from \$2,600 (Units 7 and 9) to \$32,000 (Unit 10). As noted previously, the annualized costs associated with Unit 19 are estimated to range from \$5,500 - \$5,700 and are largely driven by costs associated with consultations on “military activities,” “commercial fishing,” and “in-water construction.” Also as noted previously, for Units 4, 7, and 9, the FEA indicates that potential costs associated with critical habitat designation for humpback whales are largely driven by “aquaculture and hatcheries” activities, which the state of Alaska indicated may increase over time (and thus may potentially be underestimated in the analysis). For Units 6 and 10, costs are spread across multiple categories of federal actions, with “oil and gas activities” being the greatest source of costs for Unit 6, and “in-water construction” and “aquaculture and hatchery activities” being the greatest source of costs for Unit 10. Results of the FEA also indicate that the largest portion of the quantified, annualized impacts (\$26,000 - \$32,000) as well as the potential, non-

quantified economic impacts (e.g., project delays and potential additional costs to state agencies) are associated with Unit 10. The FEA actually indicates that the estimated economic impacts are disproportionately higher in Unit 10 compared to the other units, and estimated costs that may be borne by small entities are also concentrated in Unit 10.

These low conservation value units are areas where MX DPS whales are not expected to rely on as extensively for feeding, as indicated by the very low occurrence or predicted occurrence of this DPS in these areas. In addition, with the exception of Unit 10 (Southeast Alaska), none of these low conservation value areas contain a BIA. Unlike the other low conservation value areas, Unit 10 is well documented as supporting feeding by a large number of humpback whales annually. However, in rating the relative conservation value of each unit, the CHRT considered the distribution of the MX DPS whales in particular. Because only a small percentage of MX DPS use or are predicted to use this general area, (Barlow *et al.* 2011, Wade 2017), the relative conservation value of Unit 10 was rated as low for this DPS. Despite extensive sampling of this area during the SPLASH study (especially relative to some other regions), only about 7% of the 301 photo-identified MX DPS whales were sighted in this particular area, and based on analysis of the SPLASH data, the Southeast Alaska/ northern British Columbia region has the lowest predicted probability of MX DPS whales of all feeding areas within U.S. waters (see Table C3 in NMFS 2020).

After reviewing the results for each particular area, we conclude that the economic impacts, though still objectively low overall, outweigh the benefits of designating specific areas rated as having a low conservation value for the MX DPS. Given the large area included in the designation, the documented distribution of MX DPS whales, and the current status of this threatened DPS, we also conclude that exclusion of the low conservation value areas from critical habitat will not result in extinction of the MX DPS. Therefore, the following six areas are excluded from the final critical habitat designation for the MX DPS: Unit 4 – Central Peninsula Area, Unit 6 – Cook Inlet Area, Unit 7 – Kenai Peninsula Area, Unit 9 – Northeastern Gulf of Alaska, Unit 10 – Southeast Alaska, and Unit 19 – California South Coast (see Figure 7).

For the same reasons as discussed previously for the WNP DPS, Unit 1 (Bristol Bay Area) was rated by the majority of the CHRT members as being “data deficient” for the MX DPS. While the available data indicate the eastern Bering Sea is part of the occupied range of MX DPS whales, this area was not sampled during the SPLASH study, and no other photo-identification data are available to determine relative use of this particular area by this DPS (versus other humpback whales). Thus, based on the very limited data, the extent to which MX DPS whales are relying on this area for feeding could not be assessed. Three CHRT members who did assign conservation ratings concurred that the available data are very limited, and indicated there was a high degree of uncertainty associated with their “votes,” which were split equally between the high and medium value categories. After considering the outcome of the CHRT’s assessment, the available information regarding the documented distribution of MX DPS whales as summarized in the Final Biological Report, we conclude that the benefits of designating Unit 1 for the MX DPS are outweighed by the benefits of exclusion (i.e., the probable economic impacts that would be avoided, an annualized impact of \$2,300) of this area from the critical habitat. This is consistent with the approach taken for the WNP DPS. Given the available data indicating that MX DPS whales primarily use other feeding areas, the status of this DPS, and the scope of the areas included in the final designation, we also conclude that exclusion of this particular area will not result in extinction of this DPS. Therefore, the final critical habitat designation for the MX DPS does not include Unit 1 – Bristol Bay Area.

Table 2. Conservation ratings and estimated annualized economic impacts associated with section 7 consultations over the next 10 years for the A) Western North Pacific DPS, B) Central America DPS, and C) Mexico DPS of humpback whales. Conservation ratings in italics are those with a lower degree of certainty in the assigned category (see NMFS 2020).

A. Western North Pacific DPS			
Unit #	Area	Conservation Rating	Annualized Impacts
1	Bristol Bay	data deficient	\$2,300
2	Aleutian Islands Area	very high	\$2,600 - \$4,400
3	Shumagin Islands Area	<i>medium</i>	\$2,300 - \$2,700
4	Central Peninsula Area	low	\$2,600 - \$2,800
5	Kodiak Island Area	medium	\$4,600 - \$5,400
6	Cook Inlet	low	\$5,200 - \$5,600
7	Kenai Peninsula Area	low	\$2,600
8	Prince William Sound Area	low	\$3,400
9	Northeastern Gulf of Alaska	low	\$2,600

B. Central America DPS			
Unit #	Area	Conservation Rating	Annualized Impacts
11	Coastal Washington	medium	\$7,500 - \$8,200
12	Columbia River Area	medium/low	\$6,900
13	Coastal Oregon	medium	\$9,500 - \$10,000
14	Southern Oregon/ Northern California	high	\$2,600
15	California North Coast	high	\$1,700
16	San Francisco/ Monterey Bay	very high	\$3,000
17	California Central Coast	very high	\$7,900
18	Channel Islands	very high	\$3,900
19	California South Coast	<i>low</i>	\$5,500 - \$5,700

Table 2. Continued.

C. Mexico DPS			
Unit #	Area	Conservation Rating	Annualized Impacts
1	Bristol Bay	data deficient	\$2,300
2	Aleutian Island Area	very high	\$2,600 - \$4,400
3	Shumagin Islands Area	high	\$2,300 - \$2,700
4	Central Peninsula Area	low	\$2,600 - \$2,800
5	Kodiak Island Area	very high	\$4,600 - \$5,400
6	Cook Inlet	low	\$5,200 - \$5,600
7	Kenai Peninsula Area	low	\$2,600
8	Prince William Sound Area	medium	\$3,400
9	Northeastern Gulf of Alaska	low	\$2,600
10	Southeastern Alaska	low	\$26,000 - \$32,000
11	Coastal Washington	<i>medium</i>	\$7,500 - \$8,200
12	Columbia River Area	<i>medium</i>	\$6,900
13	Coastal Oregon	<i>high</i>	\$9,500 - \$10,000
14	Southern Oregon/ Northern California	high	\$2,600
15	California North Coast	high	\$1,700
16	San Francisco/ Monterey Bay Area	very high	\$3,000
17	California Central Coast	high	\$7,900
18	Channel Islands Area	high	\$3,900
19	California South Coast Area	low	\$5,500 - \$5,700

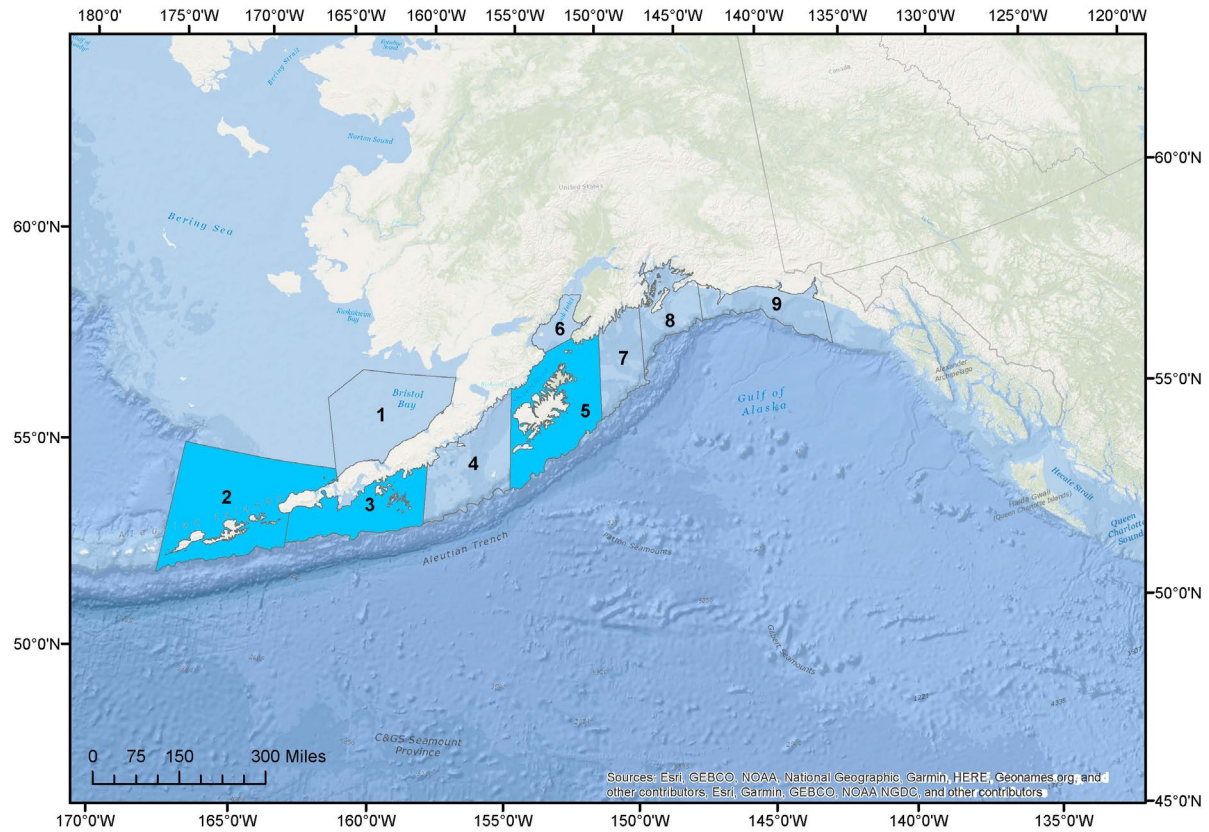


Figure 5. Specific areas included (blue) and excluded (no color) from the critical habitat for the WNP DPS following consideration of economic impacts. The three units included in the designation comprise approximately 59,411 nmi² of marine habitat, and the six units excluded from the designation comprise 63,398 nmi² of marine habitat.

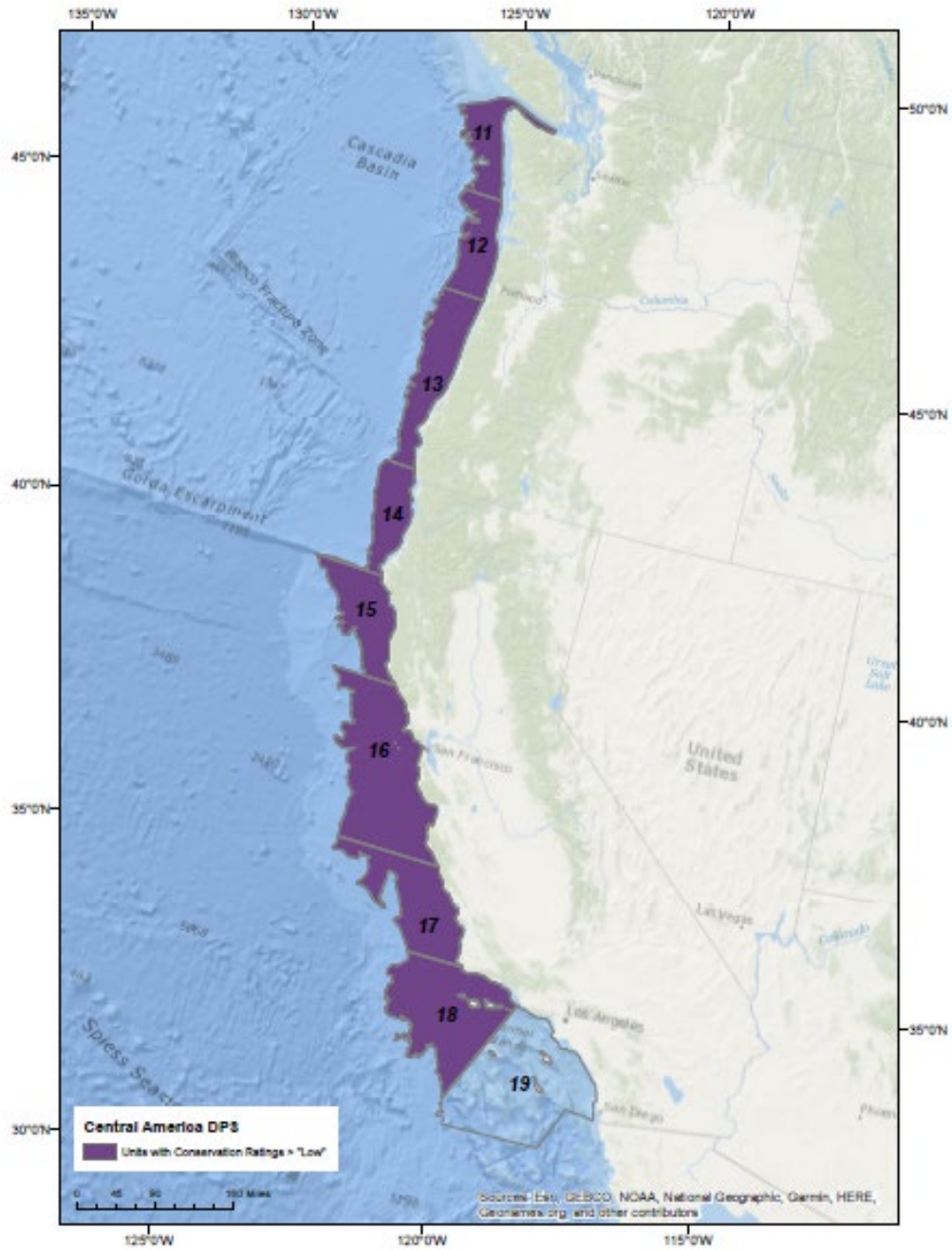


Figure 6. Specific areas included (purple) and excluded (no color) from the critical habitat for the CAM DPS following consideration of economic impacts. The total area included in the designation comprises approximately 48,521 nmi² of marine habitat. The one unit excluded (Unit 19) covers a total of 12,966 nmi² of marine habitat.

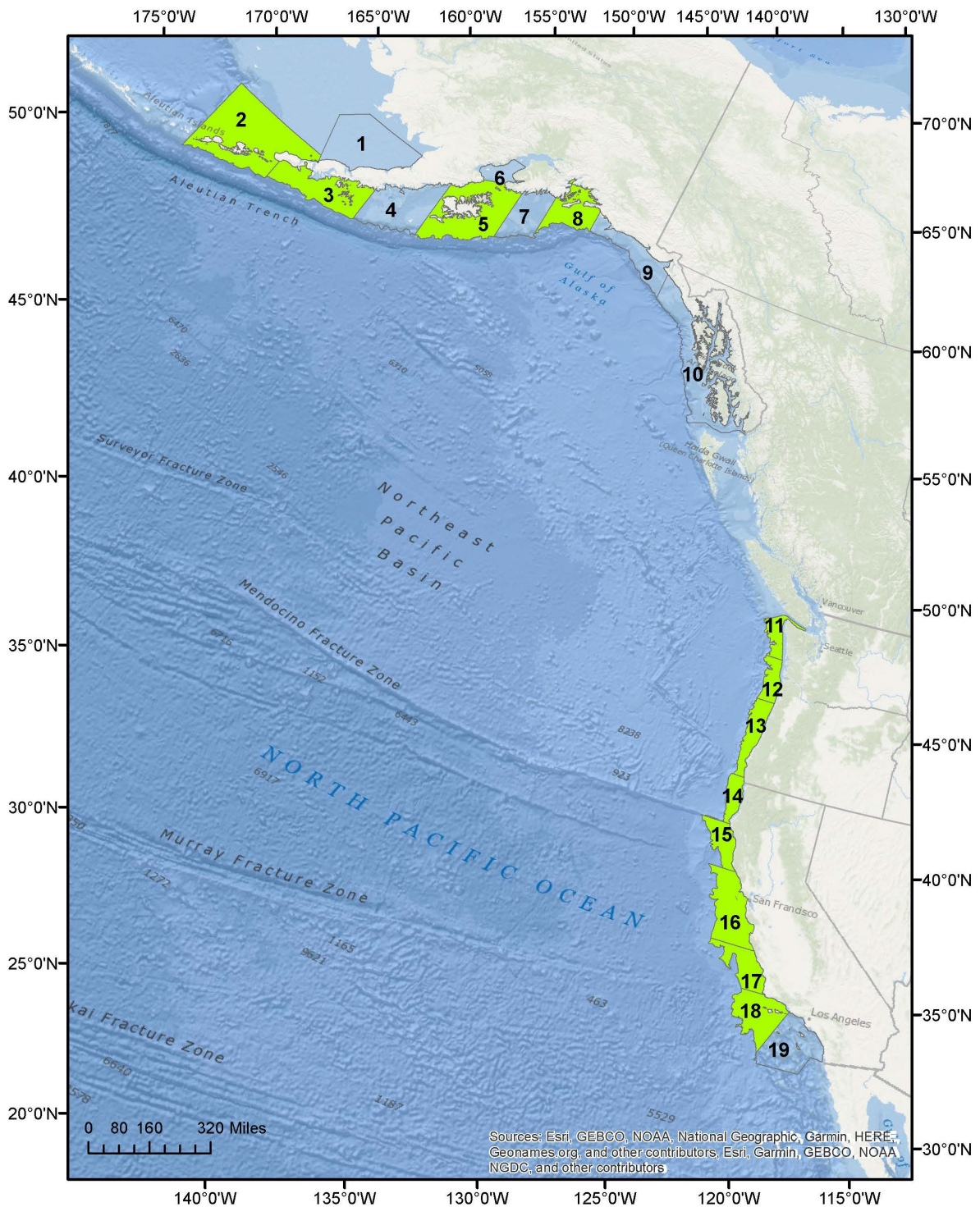


Figure 7. Specific areas included (green) and excluded (no color) from critical habitat for the MX DPS following consideration of economic impacts. The seven units excluded comprise 90,350 nmi² of marine habitat.

B. Weighing National Security Impacts Against Benefits of Designation

Based on the written information provided by the Navy in December 2018 and information provided through subsequent discussions with Navy representatives, we evaluated whether there was a reasonably specific justification indicating that designating certain areas as critical habitat would have a probable incremental impact on national security. In accordance with our Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (“4(b)(2) Policy,” 81 FR 7226, February 11, 2016), in instances where the Navy provides a reasonably specific justification, we defer to their expert judgement as to: (1) whether activities on its lands or waters, or its activities on other lands or waters, have national security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected by the critical habitat designation. In conducting a review of the exclusion requests under section 4(b)(2) of the ESA, we also give great weight to the Navy’s national-security concerns.

To weigh the national security impacts against conservation benefits of a potential critical habitat designation, we considered the following: (1) the size of the requested exclusion and the percentage of the specific critical habitat area(s) that overlaps with the Navy area; (2) the relative conservation value of the specific area for each particular humpback whale DPS; (3) the likelihood that the Navy’s activities would destroy or adversely modify critical habitat, and the likelihood that NMFS would require project modifications to reduce or avoid these impacts; and, (4) the likelihood that other Federal actions may occur in the site that would not be subject to the critical habitat provision if the particular area were excluded from the designation.

As noted above, SEAFAC is a small installation (48 nmi²), comprising only 0.22 percent of Unit 10, which covers 22,152 nmi² of marine habitat within Southeast Alaska. The footprint of SEAFAC also includes Back Island, an approximately 15-acres property for which Navy holds a special use permit granted by the U.S. Forest Service. SEAFAC lies entirely outside of the recognized feeding BIA in this region (Ferguson *et al.* 2015). Given the Navy’s substantial and specific concerns regarding the potential impact of a designation on their activities within SEAFAC, the extremely small relative size of the requested exclusion, and fact that other federal activities are unlikely to occur in this area, we had determined during development of the proposed rule that the benefits of excluding this area due to national security impacts outweighed the benefits of designating this area as critical habitat for the MX DPS. We therefore proposed to exclude SEAFAC from the designation of critical habitat for the MX DPS of humpback whales (84 FR 54354, October 9, 2019). However, as we discussed in the previous section, we conclude that the benefits of designating the larger particular area where SEAFAC is located (i.e. Unit 10) are outweighed by economic impacts of designating Unit 10. Since Unit 10 is being excluded from the final critical habitat designation for the MX DPS, consideration of the national security impacts of designating SEAFAC is no longer relevant.

After considering the information provided by the Navy regarding potential impacts on national security stemming from the designation of a portion of Unit 11 as critical habitat, we found that the Navy had provided a reasonably specific justification for their requested exclusion of the area overlapping with the QRS as well most of the 10-km buffer surrounding the QRS. The requested exclusion comprises a sizeable portion of Unit 11 (i.e., 1,522 nmi² or roughly 44%), which was rated as having a medium conservation value for both the CAM DPS and the MX DPS. To get a more precise sense of the value of this particular area (i.e., QRS plus the 10-km buffer) to the whales, we reviewed the overlap of the requested exclusion with the location of the BIA and the predicted whale densities from the Becker *et al.* (2016), which modeled predicted densities in approximately 10 km by 10 km grid cells (Figure 8).

Those comparisons indicated that the requested exclusion area is south of the BIA in this unit and overlaps partially with the area where the highest densities of humpback whales are predicted to occur within Unit 11. In other words, an exclusion of the QRS and buffer area would not remove from the designation much of the comparatively high value locations within Unit 11. The Navy also indicated that while access to this area is not as tightly controlled as with SEAFAC, they do exert significant influence in terms of limiting other federal activities within the QRS.

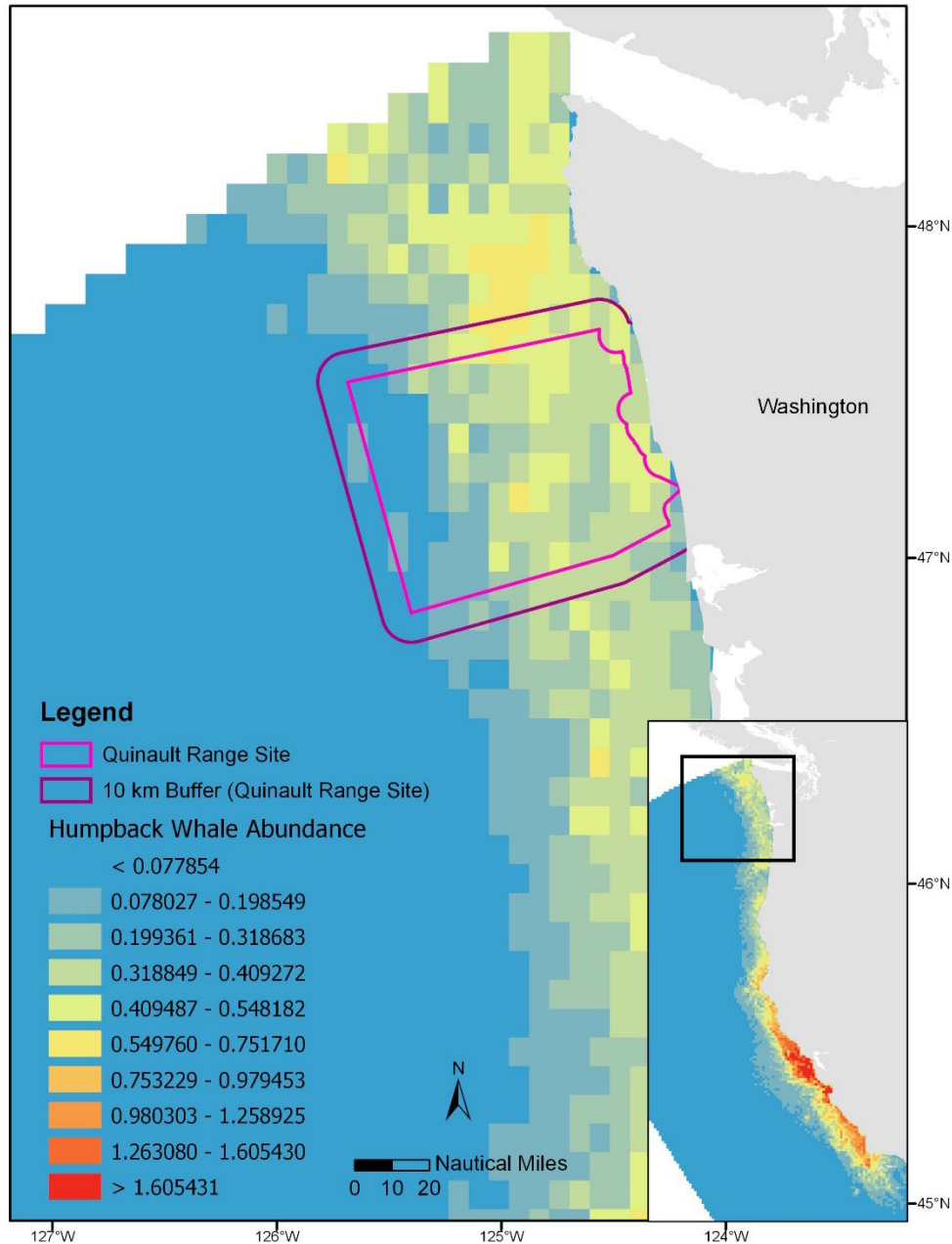


Figure 8. Humpback whale abundances predicted in approximately 10 x 10 km grid cells by the Becker *et al.* (2016) summer habitat models and location of the Quinault Range Site (QRS) and 10-km buffer around the QRS.

In reviewing the justification for the buffer, we found sufficient justification for this requested exclusion with the exception of a portion of the buffer extending from the northeast corner of the QRS where it overlaps with the Olympic Coast National Marine Sanctuary (OCNMS). This area was not excluded from the designation because the Navy does not currently conduct explosives in this northeast corner of the QRS or currently plan to do so; therefore, potential impacts to humpback whale critical habitat will not extend into the OCNMS in this area at this time. In this portion of the buffer, we found the benefits of excluding this area (i.e. to avoid any national security impacts) would not outweigh the conservation benefits of designating the area.

Overall, given the Navy's substantial and specific concerns regarding the potential impact of a critical habitat designation on their unique testing and training activities that occur within the QRS and the potential delay in critical missions in order to complete adverse modification analyses, we determined that the benefits of excluding the QRS and most of the 10-km buffer due to national security impacts outweigh the benefits of designating this portion of Unit 11 as critical habitat for the MX and CAM DPSs. Given the small size of this particular area relative to the overall designations and the medium conservation value of this area for both DPSs, we conclude that excluding this area from the designations will not result in extinction of either the CAM or MX DPS. Thus, we exclude this DOD site and the buffer area from the critical habitat designations for both the MX and CAM DPSs (see Figure 9).

We considered the information provided by the Navy concerning potential impacts on national security stemming from the designation of SOCAL within Unit 19 as critical habitat, and found that the Navy had provided a reasonably specific justification for their requested exclusion. In weighing the benefits of excluding this area due to national security impacts against the benefits of designating this area as critical habitat, we considered the information provided by the Navy regarding the nature and types of training and testing activities that occur within the SOCAL range complex (e.g., anti-submarine warfare, torpedo, mine countermeasure, gun, missile and rocket, and propulsion testing) to evaluate their potential to affect humpback whale critical habitat. We also reviewed the discussions about particular impacts provided in the Navy's 2018 Final Environmental Impact Statement for Hawaii-Southern California Training and Testing (e.g., impacts to fish and invertebrates). We agree with the Navy's assessment that the activities that occur in the SOCAL range complex, many of which occur with high frequency, have the potential to impact humpback whale prey species, with the degree of impact depending on the nature of the particular activity. While we do anticipate other federal activities to occur within Unit 19, the category with the largest number of forecasted consultations is military activities (IEc 2020). We also considered that Unit 19 is rated as having low conservation value to both the MX and CAM DPSs of humpback whales. Given the low conservation value rating of this area for each DPS and the preceding considerations, we conclude that the benefits of excluding SOCAL outweigh the benefits of designating this particular area for either DPS. Thus, even though we previously determined that Unit 19 should be excluded based on economic impacts, we made an independent determination to exclude the SOCAL area as a result of national security impacts.

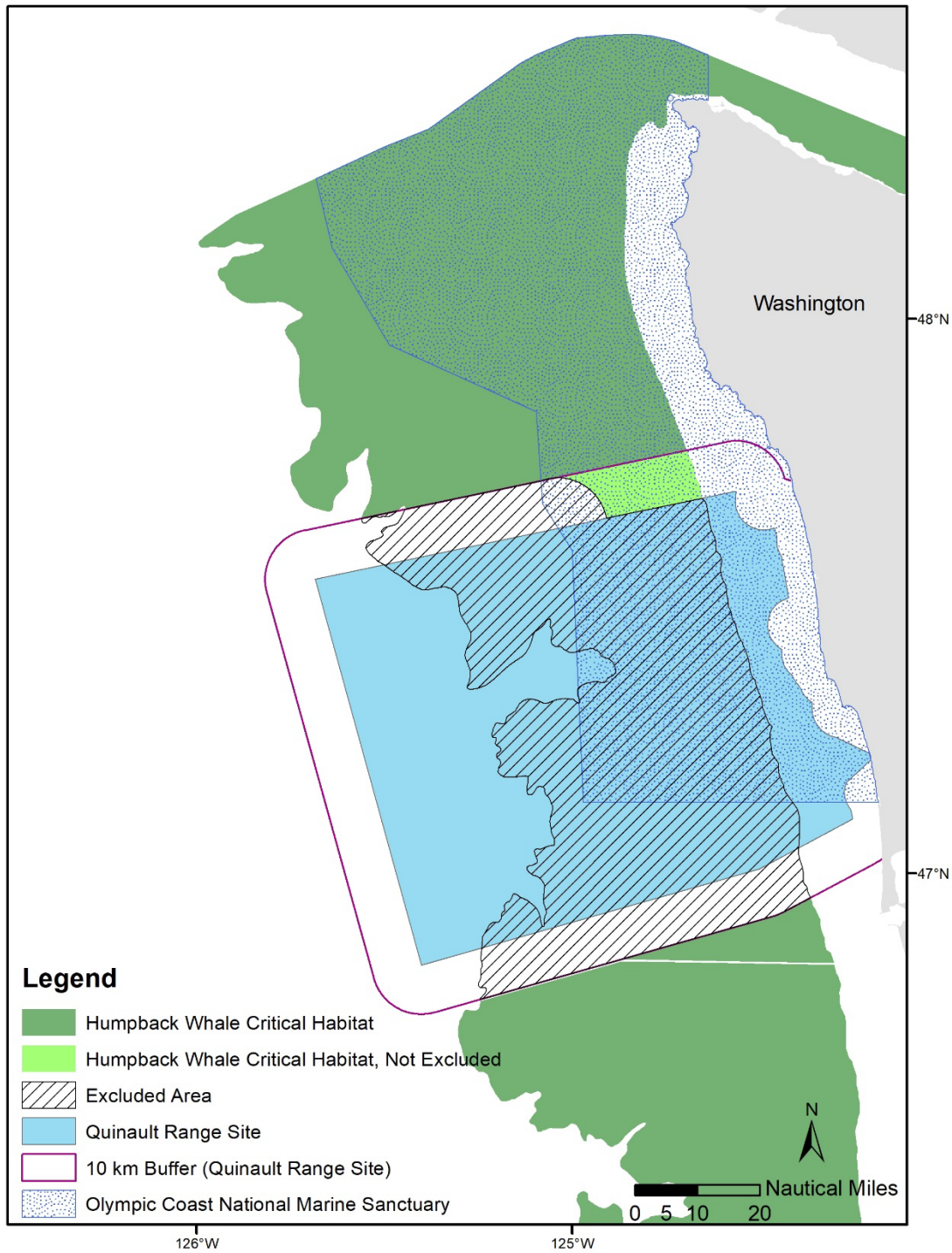


Figure 9. Area excluded from the critical habitat designations for the MX and CAM DPSs off the coast of Washington based on national security impacts (lined area). A portion of the 10-km buffer that had been proposed for exclusion but is included in the final designations is shown in light green.

C. Determining Whether Exclusions Will Result in Extinction of the Species

For the WNP DPS, we concluded that the economic impacts of designating Units 1, 4, 6, 7, 8, and 9, which comprise 63,398 nmi² of marine habitat, outweigh the benefits of designating these areas. All of the areas were rated as having low conservation value or were not rated (i.e. "data deficient") for this DPS. Based on the best available data, we concluded that this DPS does not rely on the low conservation value areas as extensively for feeding, or in the case of Unit 1, is not known to rely on the area for feeding, and is instead considered to rely on other feeding areas. Thus, we also conclude that exclusion of these particular feeding areas from a critical habitat designation will not result in the extinction of the WNP DPS.

For the CAM DPS, a total of 12,966 nmi² of marine habitat is excluded from the designation, because the limited conservation benefit of designating the relevant specific area (i.e., Unit 19 – California south Coast Area) was found to be outweighed by the economic impact of designating this area. This area off southern California was rated as having a low conservation value for this species, and is largely considered an area that the whales migrate through when moving between seasonal habitats. Based on consideration of national security impacts, we also determined that the benefits of designating SOCAL, which overlaps with 83% of Unit 19, were outweighed by the benefits of exclusion. We also found that the benefits of designating an additional 1,461 nmi² corresponding to a Navy testing and training area off the coast of Washington (QRS) and an associated 10-km buffer area are also outweighed by the benefits of excluding this area as a result of national security considerations. While this exclusion is within feeding habitat for this DPS, it is spatially very small to relative to the total designation, which extends over 48,521 nmi² of marine waters off of Washington, Oregon, and California. Therefore, we conclude that these exclusions will not result in the extinction of this DPS.

For the threatened MX DPS of humpback whales, a total of 91,811 nmi² of marine habitat is excluded from the critical habitat designation, which includes 116,098 nmi² of marine habitat off the coasts of Alaska, Washington, Oregon, and California. The limited conservation benefits of designating the relevant specific areas (i.e., Unit 1 – Bristol Bay, Unit 4 – Central Peninsula Area, Unit 6 – Cook Inlet Area, Unit 7 – Kenai Peninsula Area, Unit 9 – Northeastern Gulf of Alaska, Unit 10 – Southeast Alaska, and Unit 19 – California south Coast Area) were found to be outweighed by the economic impacts of designating these areas. We additionally found that the benefits of designating the SOCAL area within Unit 19 were outweighed by the benefits of excluding this area based on national security considerations. Given the low conservation rating for these areas and/or the limited conservation benefits of designating these areas, we conclude that exclusion of these areas will not result in extinction of this DPS. An additional 1,461 nmi² corresponding to the Navy testing area and an associated buffer off the coast of Washington (QRS) are excluded from the designation as a result of national security impacts. Although this exclusion lies within feeding habitat for this DPS, it comprises a small area relative to the total size of the designation. Therefore, we conclude that these exclusions will not result in the extinction of the MX DPS.

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APPENDIX A. Determinations under Section 4(a)(3)(B)(i) of the ESA.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric
Administration
national marine fisheries service
Silver Spring, MD 20910

MEMORANDUM FOR: The Record

FROM: Angela Somma
Chief, Endangered Species Division

SUBJECT: Consideration of Military Integrated Natural Resource Management Plans during Humpback Whale (*Megaptera novaeangliae*) Critical Habitat Designation

This memorandum documents our consideration and determinations under section 4(a)(3)(B)(i) of the Endangered Species Act (ESA) regarding the eligibility of certain military areas for designation as critical habitat. Specifically, we considered whether areas covered under Integrated Natural Resource Management Plans (INRMPs) submitted by the Department of the Navy (DON) were ineligible for designation as critical habitat for listed humpback whales. As discussed below, we determined that Naval Outlying Field San Nicolas Island and Naval Base Ventura County Point Mugu and Special Areas INRMPs confer benefits to listed humpback whales and are therefore ineligible for designation as critical habitat.

Background

The Sikes Act of 1997 (16 U.S.C. 670a-670f, as amended), enacted on November 18, 1997, required that military installations with significant natural resources prepare and implement an INRMP in cooperation with the U.S. Fish and Wildlife Service (USFWS) and state fish and wildlife agencies, by November 18, 2001. The purpose of an INRMP is to provide the basis for carrying out programs and implementing management strategies to conserve and protect biological resources on military lands. Because military lands are often protected from public access, they can include some of the nation’s most significant tracts of natural resources. INRMPs are to provide for the management of natural resources, including fish, wildlife, and plants; allow multipurpose uses of resources; and provide public access where appropriate for those uses, without any net loss in the capability of an installation to support its military mission.

In 2003, the National Defense Authorization Act (Public Law No. 108-136) amended the ESA to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the ESA (16 U.S.C. 1533(a)(B)(i)) states: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

In 2018, Endangered Species Division staff solicited relevant information and plans from the Department of Defense personnel and received copies of four INRMPS from the DON: (1) Naval Outlying Field, San Nicolas Island, California; (2) Naval Base Ventura County, Point Mugu, California (3) Naval Auxiliary Landing Field, San Clemente Island, California; and (4) Pacific Beach Annex, Washington. Of these, only the first two INRMPS were reviewed since Naval Auxiliary Landing Field, San Clemente Island is likely to be excluded due to other 4(b)(2) considerations, and Pacific Beach Annex, Washington consisted entirely of upland habitat which had no overlap with critical habitat areas. Therefore, this memorandum addresses our review of the remaining two INRMPS: Naval Outlying Field San Nicolas Island and Naval Base Ventura County, Point Mugu. These INRMPS associated with Navy facilities along the southern California coastline were evaluated and reviewed in order to identify possible benefits to the listed humpback whale distinct population segments (DPSs) that occupy the areas under consideration for designation as critical habitat.

Evaluation of Integrated Natural Resources Management Plans (INRMPS)

Endangered Species Division staff evaluated the Naval Outlying Field San Nicolas Island and Naval Base Ventura County, Point Mugu INRMPS to determine whether the areas covered were ineligible for designations as critical habitat. In evaluating whether these INRMPS provide a conservation benefit to the humpback whale, the following regulatory considerations were evaluated:

- (1) The extent of the area and features present;
- (2) The type and frequency of use of the area by the species;
- (3) The relevant elements of the INRMP in terms of management objectives, activities covered, and the best management practices, and the certainty that the relevant elements will be implemented; and
- (4) The degree to which the relevant elements of the INRMP will protect the habitat from the types of effects that would be addressed through a destruction-or-adverse modification analysis (50 CFR 424.12(h)).

Based on these aforementioned considerations, evaluations of the Naval Outlying Field San Nicolas Island and Naval Base Ventura County, Point Mugu INRMPS are discussed below.

Naval Outlying Field San Nicolas Island (SNI), California

The SNI INRMP (2015) is currently compliant and addresses terrestrial and adjacent waters of the nearshore environment with which the Navy interfaces. While the Navy owns and controls SNI and nearshore waters out to ~ 3 miles (4.8 km) from the shoreline (33 CFR § 334.980), this INRMP does not cover the entire extent area controlled by the Navy; it includes all waters,

submerged lands and resources, including Begg Rock, within the 300-foot (91-m) isobaths, or 1.0 nautical mile (nm) distance from shore, whichever is greater. This area lies within critical habitat unit 18, an area off southern California identified as meeting the definition of critical habitat for one of the three listed humpback whale DPSs (the Mexico and Central America DPS). This area is one out of 19 specific areas along the coasts of Alaska, Washington, Oregon, and California that has been designated as a critical habitat unit for listed humpback whale DPSs, and supports high density feeding aggregations of humpback whales from March through September.

Marine species considered in this INRMP include those closely associated with SNI (including Begg Rock, which is ~8 miles/13 km northwest of SNI) and regularly occur within the expanded footprint (300-foot (91-m) isobaths, or 1.0 nautical mile (nm) distance from shore, whichever is greater). This includes seasonally occurring marine mammals, which utilize the area for foraging and/or breeding purposes. While oceanic species, such as large cetaceans, which may occasionally occur within the expanded footprint on a transient or infrequent basis are not officially considered in this INRMP, these species are addressed on an as-needed basis in species specific consultations and permit processes for Navy activities offshore SNI and Begg Rock. In addition, the SNI INRMP provides a number of benefits to humpback whales.

The following are management actions described in the SNI INRMP that benefit humpback whales.

- (1) Section 4.2.1– The Navy provides enhanced water quality protection to SNI and Begg Rock. The nearshore waters around SNI and Begg Rock are designated as an Area of Special Biological Significance (ASBS). Since the ASBS water quality designation is another level of water quality protection for which sedimentation into ocean waters is considered high priority, the Navy follows all requirements and monitoring of nearshore waters around SNI and Begg Rock put forth by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board. Storm water pollution prevention activities are being implemented via monthly and seasonal (wet and dry seasons) monitoring to identify potential illicit discharges along with annual site inspections to assess and address compliance issues. In addition, a regional monitoring program has been established as part of the SWRCB Resolution 2012-0031, which helps maintain water quality monitoring and evaluation needs every five years (2008, 2013, 2018, etc.). Water quality protection contributes to improved water quality. This leads to increased availability of uncontaminated prey, reduces the type and potency of contaminants (i.e. from nonpoint source pollution), and reduces the potential exposure to pathogens for humpback whales.
- (2) Section 4.3.3 – The SNI INRMP includes management of a variety of coastal and marine habitats and communities, including deep water habitats. Current management strategies for each habitat type are designed to reduce the risks posed by marine debris, pollution, disease, overfishing, and invasive species. Management activities via routine surveys, long-term ecosystem monitoring program, and restricted access to sensitive habitats, help support the preservation of species and enhances the abundance and diversity that indirectly provides foraging opportunities for humpback whales. Management of deep water habitats is primarily achieved by regulations implemented by the California

Department of Fish and Game to limit the consumptive marine resource use from commercial and recreational fishing. These regulations may help reduce the occurrence of incidental catch of humpback whale prey and increase prey availability.

- (3) Sections 4.3.3 and 4.4.5 – The Navy conducts regular monitoring of nearshore marine habitats at SNI and Begg Rock. Efforts include surveys of rocky reef and kelp forest, rocky intertidal, subtidal, and deep water habitats. These surveys have been conducted over the decades by both public and private research entities which provide important ecological baseline information. In 2014, a project was funded to continue establishment of a long-term monitoring program for nearshore marine habitats that is comparable with the other Channel Islands, while continuing to add to the 30-year baseline dataset established by the USGS. This project will allow both biologists and installation managers to characterize long-term trends for potential humpback whale prey communities and populations that occur within these habitats. Long-term site-specific data will also help elucidate abiotic factors that may negatively affect humpback whale prey abundance and quality (i.e. pollution, temperature, and nutrients).
- (4) Section 4.4.8 – The Navy performs periodic island closures at SNI to mitigate marine mammal responses to anthropogenic noise, such as startle responses and physiological stress. In addition, Navy operations and exercises are limited during these closures to reduce disturbance to marine mammals and other oceanic wildlife traveling through the area. While behavioral responses of humpback whales to anthropogenic noise are highly variable across habitats and among individuals, effects of anthropogenic noise can result in behavioral effects and significant injury and mortality to humpback whale prey (i.e. fish and zooplankton). Thus, regular periodic closures at SNI and surrounding waters indirectly benefit humpback whales by mitigating anthropogenic noise-induced impacts to their prey and potentially increase prey availability.

Naval Base Ventura County (NBVC) Point Mugu, California

The NBVC Point Mugu and Special Areas INRMP (2013) is currently in place and includes all lands owned, leased, withdrawn, or otherwise used for military training by Naval Base Ventura County. The Point Mugu INRMP addresses terrestrial and marine resources at NBVC Point Mugu and Special Areas. In addition, this INRMP considers submerged lands and resources up to 3 nautical miles out from Point Mugu (mean lower low water line) and a zone 0.25 nautical mile out from Channel Islands Special Areas (San Miguel and Prince Island) coastline. The 0.25 nautical mile offshore area surrounding San Miguel and Prince Islands lies within critical habitat unit 18, which is one out of 19 specific areas along the coasts of Alaska, Washington, Oregon, and California that is being considered as critical habitat for listed humpback whale DPSs, and supports high density feeding aggregations of humpback whales from March through September. San Miguel and Prince Island are part of the Channel Islands and are property of the Navy, but through a Memorandum of Agreement between the Department of the Navy and Department of the Interior (dated amended 20 October 1976 and supplemented December 1985 and September 1991), thus the National Park Service has operational jurisdiction for management of the islands.

Marine species considered in this INRMP pertaining to San Miguel and Prince Islands are marine mammals (such as pinnipeds) which breed and pup almost exclusively on the Channel Islands and cetaceans which feed offshore in the productive waters of the Santa Barbara Channel. The NBVC Point Mugu, INRMP describes a number of activities that provide benefits to humpback whales and maintain the ecological integrity of their habitat.

The following are management actions described in the NBVC Point Mugu INRMP that benefit humpback whales.

- (1) Section 3.4.5.2 – The Navy ensures marine mammals are protected from disturbance and anthropogenic noise caused by aircraft or weapons testing operations. If any project or activity has the potential to disturb marine mammals, the Navy will consult with NMFS to determine if an Incidental Harassment Authorization is required. In addition, the Navy institutes area closures to recreational activities (i.e. kayaking, canoeing, wading, and swimming) along with weekly monitoring of marine mammals year-round. These efforts have involved collaboration between base biologists and biologists from state and federal agencies. NBVC Point Mugu has allowed permitted studies of the marine mammals on the base to gain a better understanding of these species and their needs. Since April, 1992, Point Mugu field biologists have conducted year-round counts, including counts of harbor seals hauled out of Mugu Lagoon. Long-term monitoring of marine mammals and implementation at NBVC Point Mugu and surrounding waters, provides an increased awareness for marine mammal occurrence and can provide valuable information on habitat function and its ability to sustain a diversity of species. Area closures at NBVC Point Mugu indirectly benefit humpback whales by mitigating anthropogenic noise-induced impacts to their prey and potentially increase prey availability.
- (2) Section 3.3 – The Navy provides water quality monitoring and stormwater management within its nearshore environment. The waters surrounding NBVC Point Mugu are vulnerable to potential degradation or contamination from activities that occur on the base. In addition, stormwater runoff and influx of sediment from erosion has the potential to degrade nearshore water quality. The NBVC Water Quality program provides routine monitoring (seasonal and monthly) for water quality and sedimentation. In addition, the Navy identifies and evaluates potential sources of stormwater pollutants, and specifies best management practices (BMPs) to control these sources and prevent or reduce pollutants in stormwater discharges and authorized non-stormwater discharges. Ocean waters offshore Point Mugu are designated by the State Regional Water Quality Control Board as an ASBS, which considers sedimentation into ocean waters a high priority. Thus, the Navy follows all requirements and monitoring of nearshore waters around NBVC Point Mugu and Special Areas as required by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board. Water quality monitoring and management contributes to improved water quality, and decreases the potential for consumption of contaminated or low quality prey by humpback whales.
- (3) Section 3.3.1.2 – The Navy provides annual support for the conservation and enhancement of estuarine deepwater habitat. Efforts include identifying potential new areas for restoration, creation and enhancement of native buffers around wetlands, routine

removal of litter from banks of the lagoon and tidal channels, and annual surveys of the estuarine fishery community by trapping and seining selected areas of the estuary. Other annual surveys provide data on species encountered to help identify changes in species assemblages. Maintenance and monitoring of wetland communities sustains the ecological health and integrity of the nearshore environment, which provides habitat to a variety of marine flora and fauna. This habitat supports many species at the base of the food chain, including plankton and sardines that are an essential food source to humpback whales. Additionally, estuaries help absorb floodwater runoff and act as natural water treatment centers, filtering out large amounts of nutrients and waterborne pollutants, which protects water quality. Thus, these conservation efforts will also decrease ingestion of contaminated prey by humpback whales transiting through the area, and lessen lethal impacts to their prey.

Determination

After reviewing the Naval Outlying Field San Nicolas Island and Naval Base Ventura County Point Mugu and Special Areas INRMPS, we conclude that both INRMPS confer benefits to humpback whales. As described above, these INRMPS are being implemented and projects are adequately funded to conserve humpback whales and protect their habitat. The aforementioned management measures are in place, which provide a conservation benefit to humpback whales. In both INRMPS, the Navy discusses reviewing INRMP goals and objectives and soliciting feedback from partner agencies during its annual review process, which includes staff from NOAA. In addition, the DoD and Navy consult formally and informally with NOAA/NMFS on the impacts of Navy activities on federally listed marine mammals. Therefore, the Naval Outlying Field San Nicolas Island Naval and Naval Base Ventura County Point Mugu facilities meet the regulatory requirements under section 4(a)(3)(B)(i) of the ESA (16 U.S.C. 1533(a)(B)(i)), and are deemed ineligible for critical habitat designation.