IMAGERY & GIS IN INDIANA

HOW PROJECTS & PARTNERSHIPS SHAPE THE LANDSCAPE

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Indiana Geographic Information Officer

State of Indiana

THE MOMENT ONE DEFINITELY COMMITS ONESELF, THEN PROVIDENCE MOVES TOO

– WILLIAM H. MURRAY

I.C. 4-23-7.3 Indiana GIS Mapping Standards

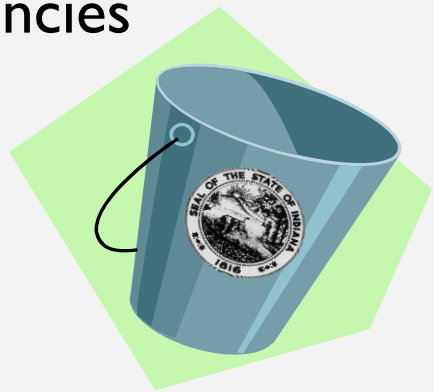
Coordinate GIS Efforts

Integrate Data

GIO RESPONSIBILITIES

Create New Data

Serve as GIO for State Agencies



Distribute Data

Transportation
Education
Urban Planning
Public Safety
GIS
Health
Agriculture
Government
Natural Resources

PARTNERS

- Indiana Geographic Information Council
- Local/Regional/Federal government
- State Agencies – The Enterprise
- Universities
- Not-for-profit
- GIS vendors and providers
- National States Geographic Information Council
- Professional/Affiliated organizations

PROJECT DRIVEN

KEYS TO COMMUNITY

- Communication
- Listen
- Understand the impact
- Set your projects
  - Data sharing
  - Imagery
  - Data standards

When agencies share data, lives are saved and public offices become more efficient. Sharing data encourages collaboration among agencies, provides for informed decision-making and reduces redundancy of data production. Further, planning and policy groups become better informed, particularly in terms of emergency calls and disaster response. We can be proud that all 92 counties are now sharing their map data, a major milestone that will benefit all Indiana taxpayers. - *David Vice, Executive Director of the Indiana Integrated Public Safety Commission*

STATEWIDE DATA HARVEST

INDIANA GEOGRAPHIC INFORMATION OFFICE

With this email, we are kicking off the Indiana GIS data harvest for 2020 and we believe that you are the appropriate contact for this request. The data that we are requesting is crucial for county, regional, statewide, and national GIS activities and benefits fellow Hoosiers and others through maps, dashboards, analysis, and applications critical to Census, transportation planning, environmental management, and public health and safety, and others. Unfortunately, these data are out of date. We are therefore requesting your assistance to update these data. If you are not the correct contact person, please forward this email to that person and let us know.

As in previous years, we are asking you to provide address points, land parcels, road centerlines and government boundaries. A ***preferred*** data specification is included with this email. We are requesting that you adhere to these specifications **as much as you are able and willing**. We are also requesting, if you are able and willing, to provide us with a listing of the field names, if different from those in the specification, that you will be submitting for each data set. There are spaces in the specification spreadsheet for that information (names of layers and county names of fields).

We are extending the **deadline to September 23rd** so that you have time to review the preferred data specifications.

We have streamlined the data submission methods over previous years. We will be employing two methods, one for counties working with vendors and the other for counties that will be transmitting the data directly. If you are planning to submit directly (not through a vendor) please complete the short form located at https://arcg.is/1yiiyy. This will trigger an email from us with some easy to follow instructions.

This year, the Polis Center at IUPUI will be assisting the Geographic Information Office with this data harvesting effort. Please direct any questions to Jim Sparks at inshare@iupui.edu or 317-278-2433.

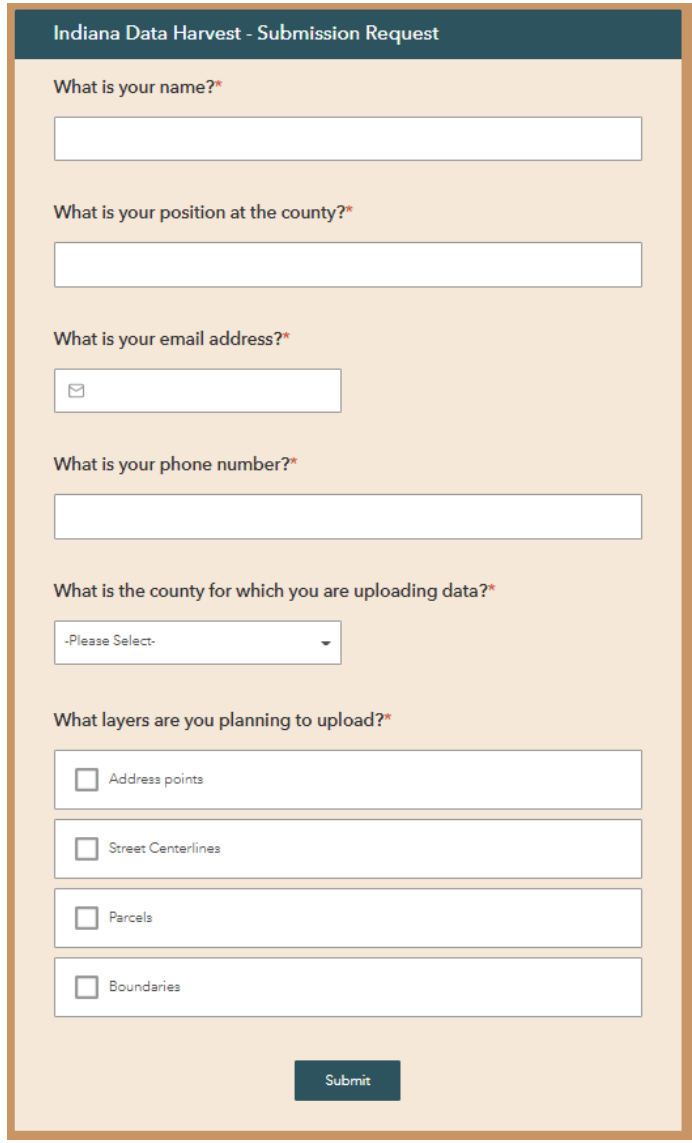
You can follow the progress of the data harvest effort here: Indiana Data Harvest Dashboard.

We very much appreciate your participation this year as we have in years past!

Thank you,

Megan R.L. Compton
Indiana Geographic Information Officer

https://www.in.gov/gis/datashare.htm



PARTNERSHIPS

GIS INDIANA GEOGRAPHIC INFORMATION OFFICE

The Polis Center

Indiana GEOGRAPHIC INFORMATION COUNCIL

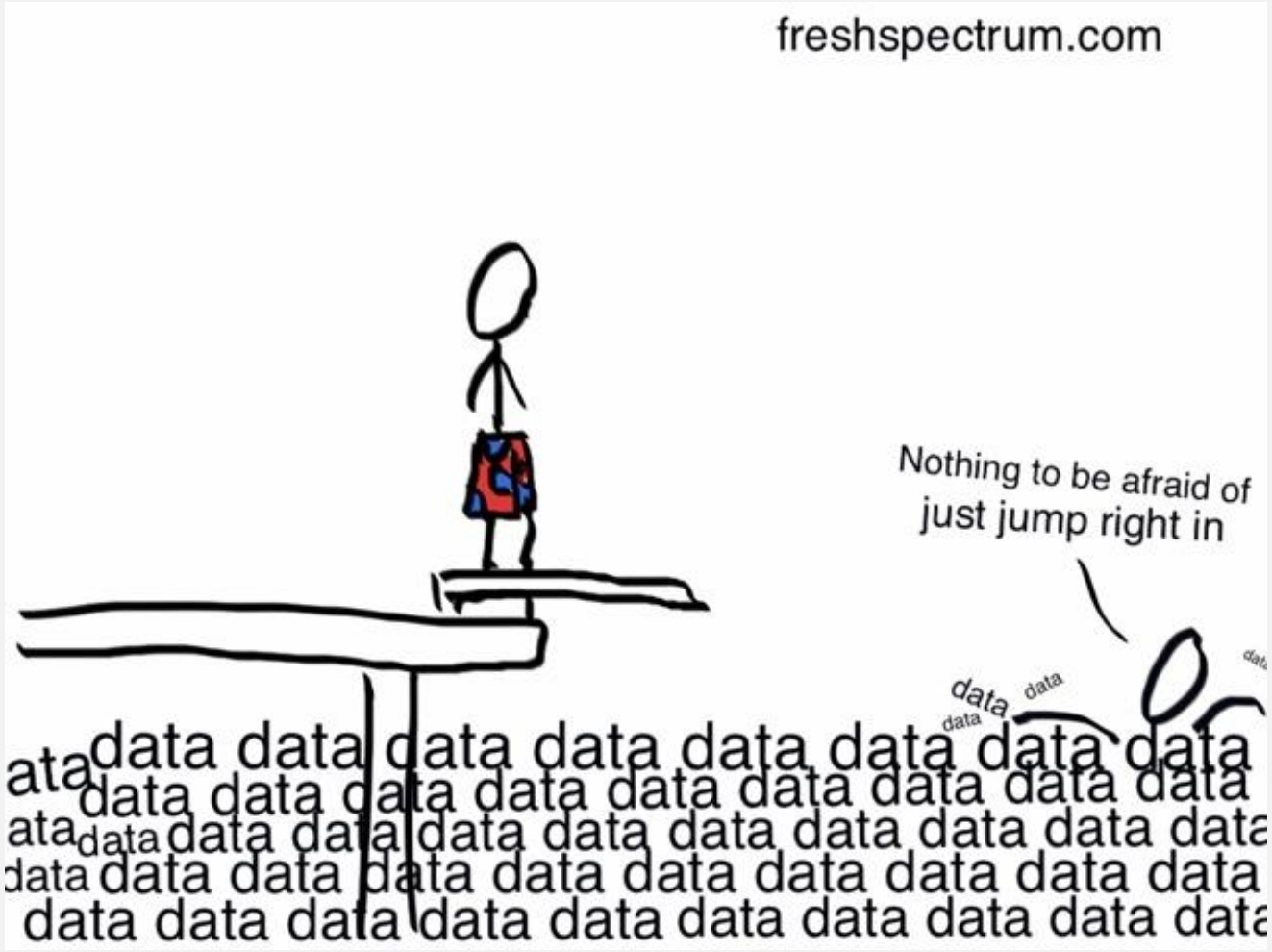
Schneider GEOSPATIAL

WTH

INDIANA UNIVERSITY

KELLEY SCHOOL OF BUSINESS

Indiana Business Research Center



2020 DATA HARVEST RESULTS

- 3.2 million address points
- 500,000 road segments
- 3.6 million parcels
- 5,000 boundaries

- New geocoder
- Fresh data layers

Indiana Data Sharing Dashboard

GIS DATA HARVEST PROGRAM

Last Update: 4/28/2021

2020 Data Harvest

Download:

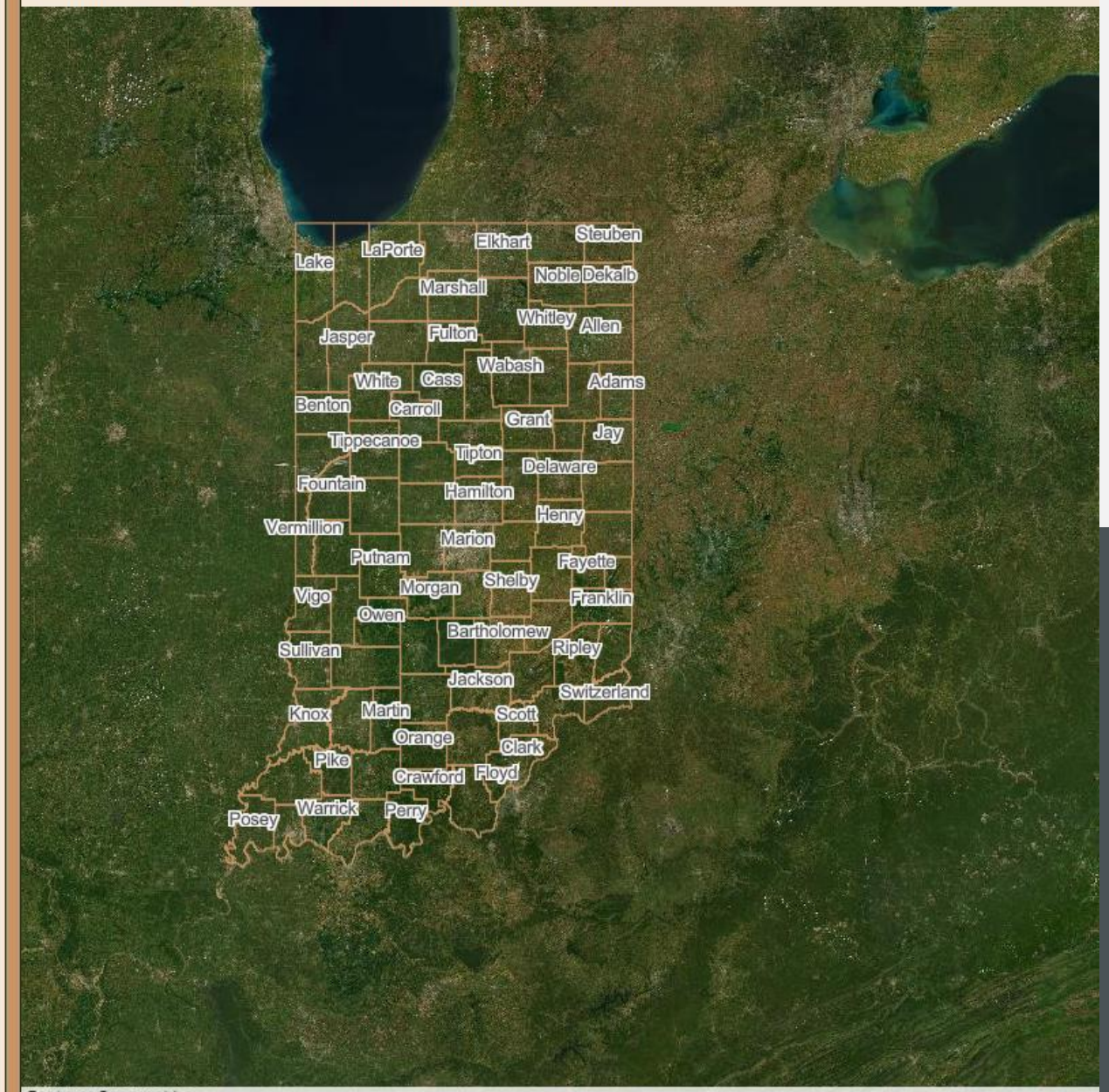
- Statewide datasets:
  - Address Points
  - Street Centerlines
  - Parcels
  - Boundaries
- County datasets
- Metadata
- Geocoding geodatabase and statewide locators
- **NEW** - ArcMap and ArcGIS Pro layer files for address points, street centerlines, and parcels, pointing to the feature services listed below
- **NEW** - 2020 Department of Local Government Finance real property geodatabase (includes PARCEL, LAND, IMPROVE, DWELLING, BUILDING, and BUILDING DETAIL tables)

Feature services (**NEW**):

- Parcel Layer: https://portalqa.gis.in.gov/gioagsqa/rest/services/Hosted/COUNTY_Parcel/FeatureServer
- Address Layer: https://portalqa.gis.in.gov/gioagsqa/rest/services/Hosted/COUNTY_ADDRESSPOINT/FeatureServer
- Street Layer: https://portalqa.gis.in.gov/gioagsqa/rest/services/Hosted/COUNTY_Trans_RoadSegment/FeatureServer

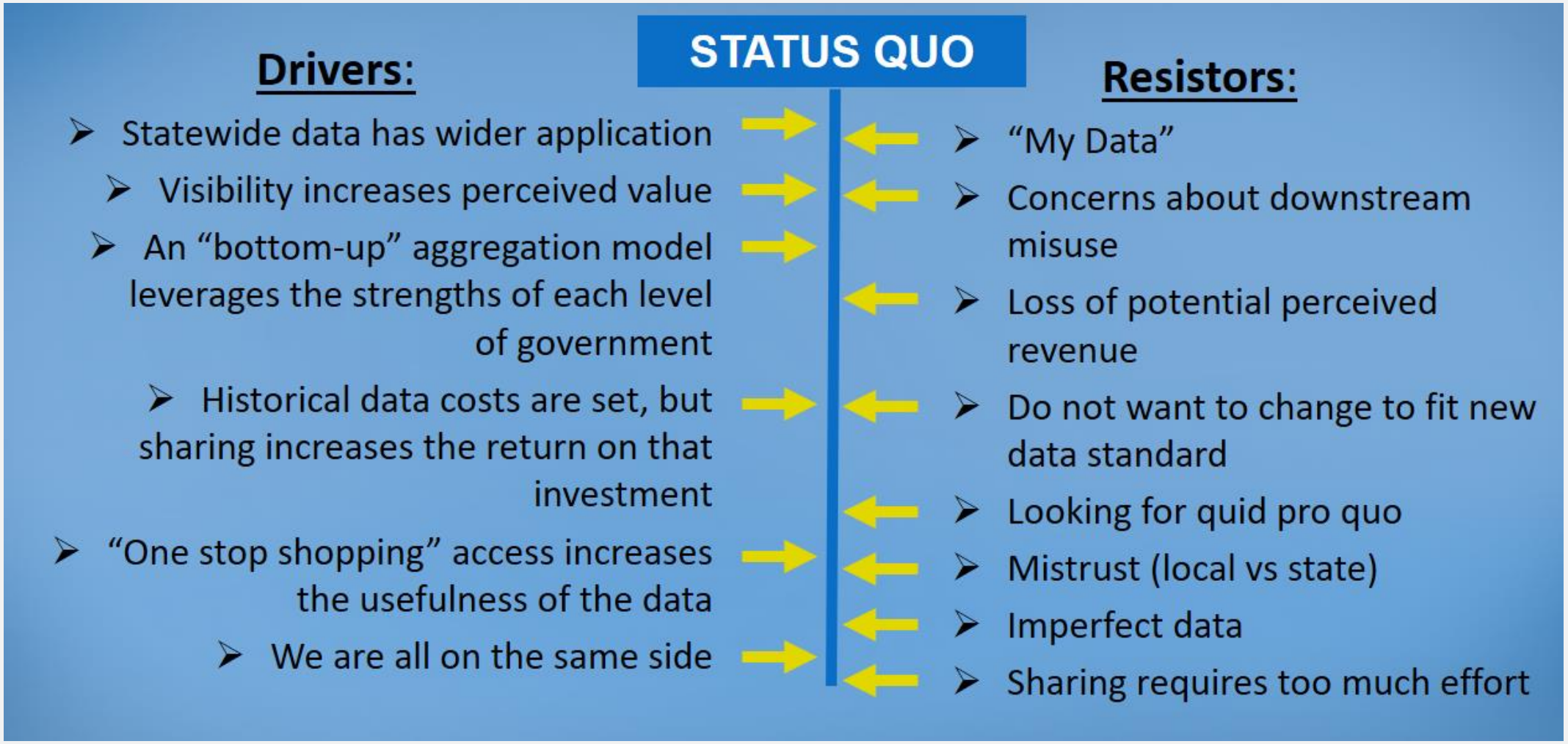
For upcoming information on the 2021 Data Harvest, please visit https://www.in.gov/gis/data-sharing.

Zoom in to see parcels, street centerlines, and address points.



Resulting Data | Status of Parcels | Status of Boundaries | Status of Point Addresses | Status of Street Centerlines

CHANGE MODEL: INDIANA DATA SHARING

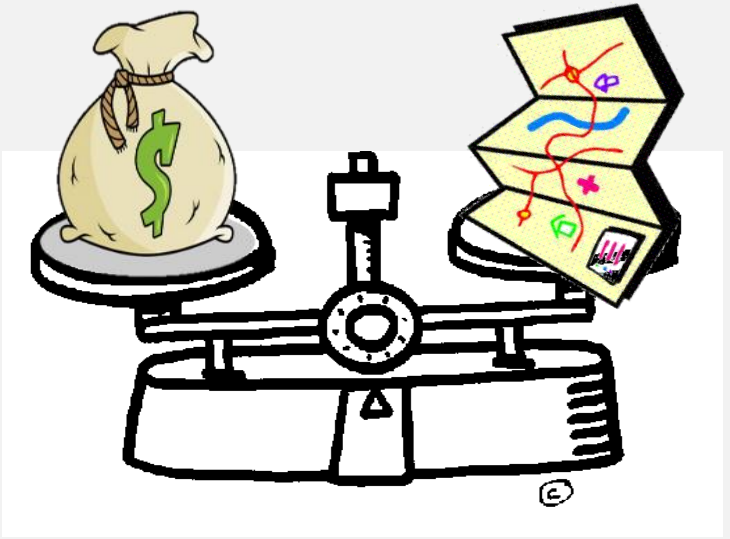


Reducing Resistors is more effective than adding Drivers*

*See Kurt Lewin's Theory of Change Management

REDUCING RESISTANCE

- **Resistor: "My Data" caused by:**
  - The desire to sell data which would be impacted by giving it to the GIO
  - Concerns about privacy, downstream use, businesses making a profit from gov data
- Removing or reducing resistor:
  - **Request only what is essential** (subset of data)
  - Reminders that this is public data governed by Indiana APRA



REDUCING RESISTANCE

- **Resistor: Counties don't want to change format of their data (how they do business)**
  - Recognize that counties have invested in their data creation/maintenance processes
  - Their processes grew out of their business needs – it works for them!
- Removing or reducing resistor:
  - We (state) changed data format on the back-end so counties did not need to change.

REDUCING RESISTANCE

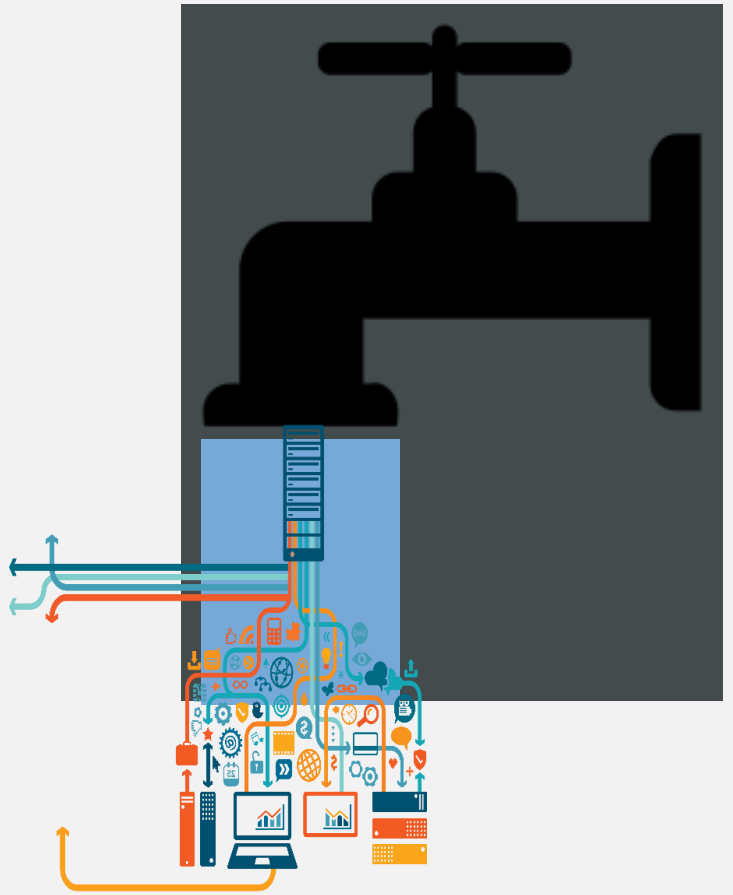
- **Resistor: Mistrust between county and state**
- Removing or reducing resistor:
  - **Develop relationships over time**
  - Reinforce common goals
  - Meet face-to-face to reduce misunderstandings caused by communication "noise".

REDUCING RESISTANCE

- **Resistor: Concern about sharing imperfect data**
- Removing or reducing resistor:
  - **Willingness to accept imperfect or incomplete data***
  - Willingness to help improve data (Helped Putnam County improve data by contributing $46k)
  - *Critical point for NG9-1-1

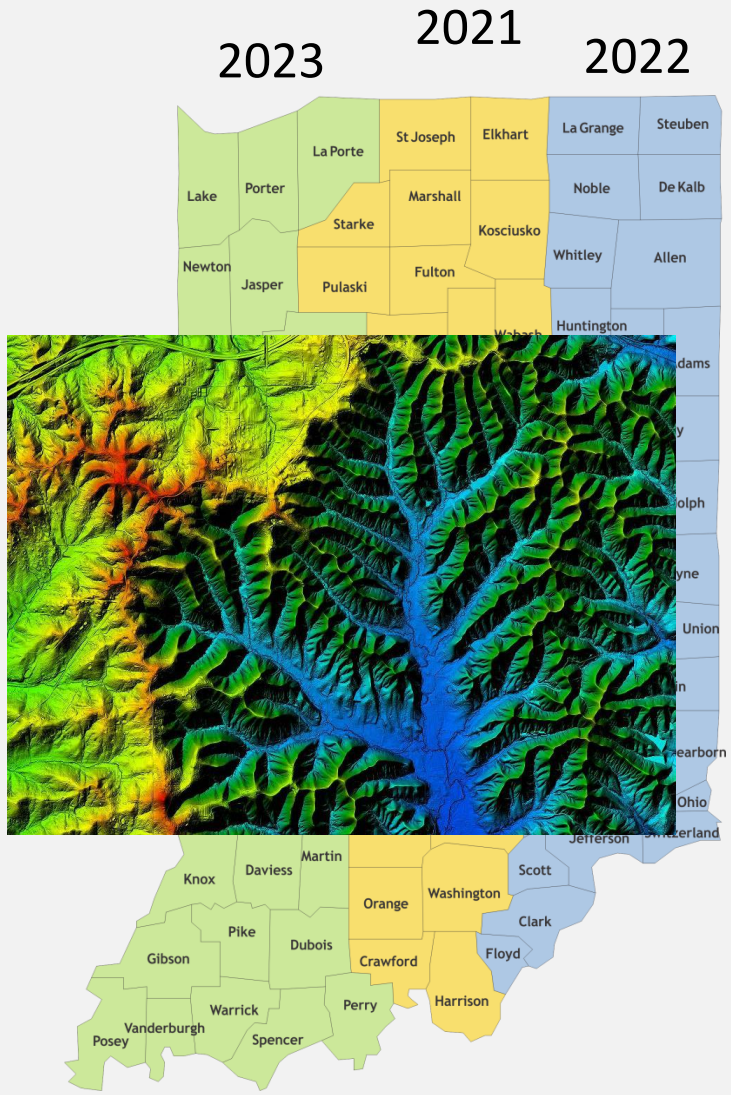
REDUCING RESISTANCE

- **Resistor: Sharing is too much effort**
- Removing or reducing resistor:
  - We created a **data streaming transfer process that was "hands-off"** for counties after initial set-up



REDUCING RESISTANCE

- **Resistor: Counties want something in exchange for their data**
- Removing or reducing resistor:
  - State initially provided a modest amount of funding to cover vendor cost of hosting and transferring data
  - **State has provided orthoimagery (3x) and LiDAR data to counties**.



WHAT'S NEXT

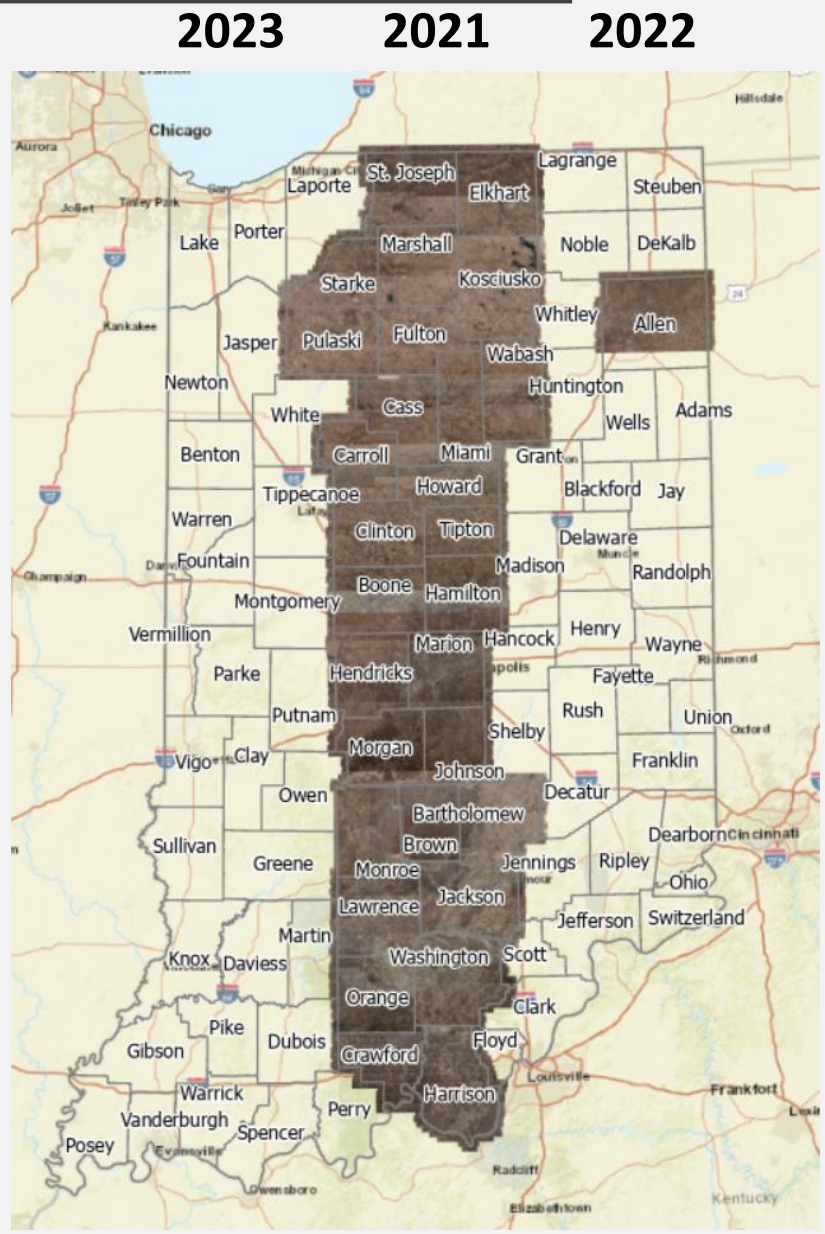
COLLABORATION WITH IGIC WORKGROUP

TOOLS FOR DATA COLLABORATION

2021 HARVEST

INDIANA STATEWIDE ORTHOIMAGERY PROGRAM

- **2021-2024 Ortho – 6”**
- 2016-2019 Ortho – 1’
- 2011-2014 Ortho – 1’
- 2005-2006 Ortho - 1’



PROGRAM DEVELOPMENT & MANAGEMENT

- **Workgroup represented by**
  (state, county, education and ret.)

  Created survey for Indiana's Orthoimagery needs

  Developed Orthoimagery RFP

  Members of the RFP team reviewed all proposals and presentations

  Team and IDOA made a recommendation

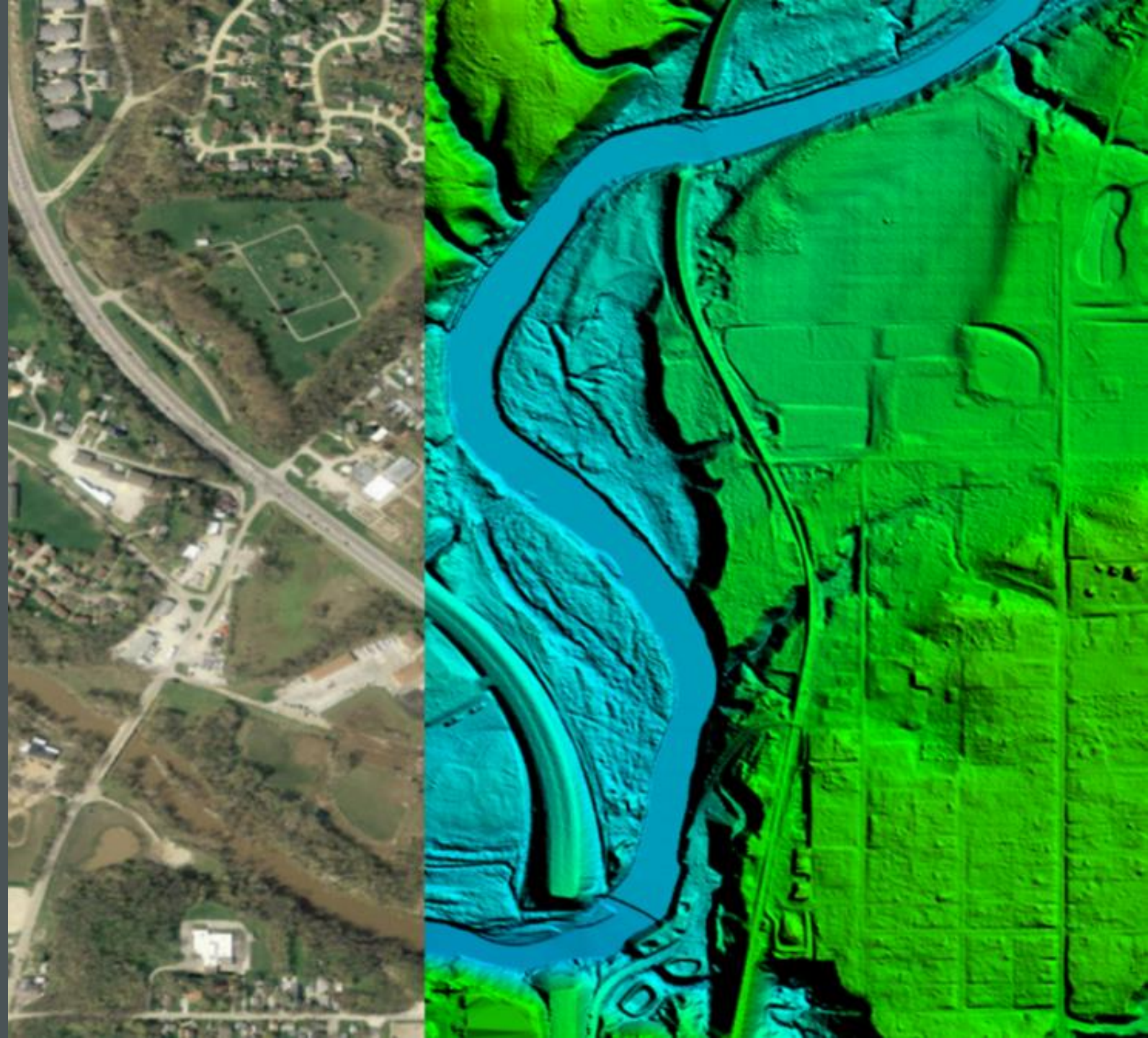
  Administered through Indiana Geographic Information Office

PROGRAM - BENEFITS

- **6-inch Orthophotography – no cost to counties**
- Contract Management
- Statewide coordination and shared resources
- Coordinated QA/QC
  - INDOT (Aerial Surveys)
- Data Distribution
  - (web services and download)

PROGRAM - SPECIFICATIONS

- **Base Products**
  - 6-inch (15-cm) Pixel Resolution
  - 4-Band Imagery (R,G,B, NIR)
  - GeoTIFF Tiles
- **Additional Products**
  - Compressed County Mosaic
  - Compressed Tiles



PROGRAM - FUNDING

- Indiana Office of Technology (IOT)
- Indiana Department of Transportation (INDOT)
- Additional Partnerships
- Buy-up opportunities and additional products available to counties and other partners

WHERE TO NEXT?

THANK YOU

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https://www.in.gov/gis/

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