Speakers

Steve Hook, GISP
GIS Manager
Noble County Government

Brad Stump, GISP
GIS Specialist
Butler, Fairman & Seufert

Megan Compton, MPA
Geographic Information Officer
State of Indiana
The goals of the IndianaMap 2.0 will be to host and distribute statewide GIS data layers, including imagery, and other data deemed necessary and important by the GIS community.

This survey results will guide decisions for IndianaMap 2.0. Your input and suggestions will help the Indiana Geographic Information Office better understand the GIS community’s needs for IndianaMap 2.0 features and upcoming request for proposal (RFP) to support data hosting, tools and distribution.
Agenda

- **Steve Hook**
  - Survey respondents, current use and key features for future use

- **Brad Stump**
  - GIS Data and content, including updates and formats

- **Megan Compton**
  - GIS data standards and IndianaMap 2.0 tools
Survey Results Overview

CONDUCTED: MARCH 31 THRU APRIL 16, 2020

TOTAL RESPONDENTS 431

GOVERNMENT – 57%
COMMERCIAL – 15%
EDU./UNIVERSITY – 10%
NON-PROFIT – 5%
UTILITY – 3%
OTHER – 8%

UNDERSTAND GIS COMMUNITY’S NEEDS FOR REQUEST FOR PROPOSAL (RFP)
Sector Detail

- Federal Government: 2%
- State Government: 4%
- City/Town: 8%
- County Government: 15%
- Commercial: 15%
- Non-profit: 15%
- Utility: 5%
- Educational/University: 30%
- Other – please specify: 11%
- Private: 4%
- Retired: 5%
- MPO: 10%
- Regional: 4%
- Library: 2%
- Fire: 1%
- Other (Various): 10%

Answered: 431  Skipped: 0
Importance of IndianaMap Data to Job Duties

- Helpful: 58%
- Essential: 32%
- Not Essential: 10%

90% - Helpful/Essential
10% - Not Essential

Frequency of IndianaMap Access

- Weekly/Daily: 46%
- Quarterly/Monthly: 34%
- Annually: 12%
- Never: 8%

92% - Accessing Data
8% - Not Accessing

Why Use IndianaMap Data

- Hard-to-find State Data: 231
- Not Created Locally: 244
- Used for Analysis: 196
- Used for Projects: 210
- Don’t Use IndianaMap Data: 38

91% of 428 use IndianaMap
I don’t use the IndianaMap - Why?

**Functionality Limitations**
- Not suited for my data needs
- Difficult to navigate
- Data only available for entire state
- Data is usually out of date - local data is better

**Non-essential Needs**
- Supplier of data and not consumer of it
- Use our own GIS System

**Education Outreach**
- Didn't think it had relevant data to our work
- I simply haven't found the need for it yet. I do check it out from time to time just for curiosity's sake though.
GIS Data Searches in the Map Layer Gallery

- By data category (Address, Waterbodies, Zip Code, etc.)
- By features (connected waterbodies, PLSS, etc.)
- By feature content (attributes)
- Keywords (Topics and Tags)
- Lists of all layers in a keyword category
- Current IndianaMap Search Options
- By date (Year, etc.)
- By Polygon Drawn on map (Show Available datasets)
- By Geographic Area of Interest (Quad, Municipal Boundary, Unincorporated Area, Area Smaller than a County)
- Similar to the Indiana Spatial Data Portal
- Well organized thematic datasets presented so I can download by clicking on a link

Answered: 406  Skipped: 25
Within the Map Viewer, how would you like to select data for download?

**Results**

- **Clip By Area**: 341 (Not currently available on IndianaMap)
- **Statewide Layers**: 217
- **Other - Please Specify**: 26

**Comments**

- County/County Layers/County Boundaries
- County Data Sets for Parcels, Roads, Addresses, Orthoimagery
- Townships, Watershed, other administrative districts.
- Data that is within county and MPO boundaries would be very useful
- Draw a border, or select a municipality, county, census block etc.
- Select by Address
- Select by Attribute
- Zip Codes

Answered: 426  Skipped: 5
Map Viewer to Preview and/or Build Custom Maps?

Results

- Yes: 240
- No: 165
- Comments: 43

Comments

- Direct others to IndianaMap
- For larger projects
- Preview data before downloading
- Prefer to use own GIS software
- Would use if custom map environment worked well
- Use for quick visualizations
- Provide answers for special requests
- Use by those that don’t have GIS software or don’t have access to it.

Answered: 416 Skipped: 15
Desired Data Harvest & Posting Frequency

- **Elevation**: 92% (5-7 years), 96% (2-4 years), 83% (Annually), 79% (Quarterly), 80% (Monthly), 92% (Weekly)
- **Geodetic Control**: 95% (5-7 years), 96% (2-4 years), 94% (Annually), 92% (Quarterly), 92% (Monthly), 94% (Weekly)
- **Water Features**: 97% (5-7 years), 93% (2-4 years), 85% (Annually), 83% (Quarterly), 80% (Monthly), 92% (Weekly)
- **Orthoimagery**: 97% (5-7 years), 93% (2-4 years), 85% (Annually), 83% (Quarterly), 80% (Monthly), 92% (Weekly)
- **PLSS**: 96% (5-7 years), 92% (2-4 years), 92% (Annually), 92% (Quarterly), 80% (Monthly), 92% (Weekly)
- **Government Boundaries**: 71% (5-7 years), 78% (2-4 years), 78% (Annually), 78% (Quarterly), 79% (Monthly), 94% (Weekly)
- **Parcels**: 42% (5-7 years), 42% (2-4 years), 55% (Annually), 55% (Quarterly), 54% (Monthly), 92% (Weekly)
- **Street Centerlines**: 13% (5-7 years), 10% (2-4 years), 54% (Annually), 54% (Quarterly), 54% (Monthly), 92% (Weekly)
- **Address Points**: 40% (5-7 years), 9% (2-4 years), 74% (Annually), 74% (Quarterly), 49% (Monthly), 92% (Weekly)
## Requested Non-Framework Data Sets

### Transportation:
- Rights-of-Way
- Bridges
- Edge of Pavement
- Hwy Project Locations
- Accident Data
- Sign Inventories
- Railroads & Crossings
- Airports & Controlled Airspace
- Trails
- Pedestrian/Bicycle Infrastructure

### Environmental:
- Well Locations
- Aquifers
- Geological Data
- Soil Types
- Red Flag Survey Data
- USTs, LUSTs
- Coastal Zones
- Endangered Species Locations

### Environmental (con’t):
- CAFOs
- Impaired Waterways/Waterbodies
- Fertilizer/Pesticide Data
- Crop Harvest Data
- Classified Forests
- Vegetative/tree Cover
- Color-Infrared Imagery (multiple times per growing season)

### Hydrology:
- FIRM Floodplains
- Wetland Inventory
- Watersheds/HUC Boundaries
- County Drains

### Utilities:
- Service Territories
- Utility locations
- Cell Towers
- Hydrant Locations

### Reference:
- Building Outlines
- Historic Register/DHPA Sites
- State-Owned Properties
- Land Use
- Cemeteries

### Administrative:
- USACE Regional Boundaries
- Local Zoning
- Voting Results
- Elected Official Info w/ Boundaries
- Census Blocks
- TIF Districts

### Critical Infrastructure:
- Schools
- Hospitals
- Gov’t Buildings
- Low- and High-Head Dams

### Health:
- Aggregated Health Data
- Opioid Data
- (continue it)

### Comments:
- When authoritative sources provide this data the IndianaMap should provide links to the source, not re-create
Historic Data Availability

**Responses**

- **Yes**: 281
- **No**: 95

**Comments**

- Aerial Photography/Imagery
- Parcel Data
- Ground Elevations
- AADT
- Aerial photography and data sets that don’t have a date column.
- Topographic maps
- Demographic maps
- Land cover change
- Political boundaries
- Fire insurance maps
- USGS maps, county atlases
- Townships

- Buildings
- Population
- DLGF
- Survey
- Waterways, wetlands
- government boundaries
- agricultural census data,
- SHAARD from IN DNR
- Sandborn imagery
- All Census or at least a link to that data
- All data that has ever been on IndianaMAP

Answered: 375  Skipped: 56
Consuming the Data

Preferences

- Download: 295
- Map Viewer: 238
- Map Service (WMS): 155
- Feature Service (WFS): 123
- Other/PDF: 17

Comments

- Download would allow a copy of the data to be downloaded to a PC and used by local software.
- Map Viewer is expected to allow users to add layers and print custom maps from the browser, similar to the existing capability.
- WMS & WFS both allow the data to be used as a service in a user's software app but:
  - WMS uses fixed symbology but allows service to be cached for faster rendering.
  - WFS allows symbology to be set by user and, if allowed, feature editing (not in IndianaMap).
Desired Raster Data File Formats

Comments

- Would like the ability to export/consume as:
  - PDF
  - BITMAP
  - WMS
  - ArcGIS Server Service

- Note that current system of Compressed Mosaics and GeoTiffs works well so requested IndianaMap keeps both

*2016 and prior GeoTIFFs available at ISDP"
Desired Vector Data Formats

**Formats**

- SHP: 318
- GDB: 286
- KML: 136
- KMZ: 136
- Other: 22

**Comments**

- Would like the ability to export/consume as:
  - PDF
  - DXF/DWG
  - SQLite
  - LAS/LAZ
  - OGC Geopackage
  - WFS/WMS
- Geodatabase (GDB) export may have version issues
- One request was to eliminate downloads and use WFS/WMS so everyone’s data is always the same version and always the most current

Answered: 396  Skipped: 36
How important is FGDC compliant metadata to your use of the IndianaMap data layers?

- Essential: 24%
- Helpful but not essential: 55%
- Not essential: 21%

Answered: 417  Skipped: 14
Should the Map Viewer include basic geoprocessing tools?

- Yes 79%
- No 14%
- Comments 7%

Comments:

- Be able to select specific metadata rather than download the entire file then filter through in arc GIS
- Data analysis tools helpful to those who don’t have access GIS tools
- Embedding data in some AGOL instance?
- Select data by window, or even a defined grid and download those data sets.
- If I could get a quick answer to something—something like Polis Center’s
- Dependent on functionality
- Download data and use my own GIS
- Multiple feature selection, buffer, selection by location, select by attribute (query), importing shapefiles... etc...
- Selection and ID primarily
- The commercial and open source applications can do this just fine
- Useful for performing analysis over large areas

Answered: 400  Skipped: 31
Would be Willing to Pay for Advanced Access to Features and Datasets

- Yes: 21%
- No: 59%
- Comments: 20%

**Comments:**

- Dependent on method of cost calculation, depends on funding and what features and data sets will be available.
- Government agencies should be provided free access.
- I use it for teaching and research. Payment cripples both activities for small institutions.
- As long as it is useful data.
- Aren't taxpayers already paying for this to begin with?
- One year flat fee subscription of $250 or less could easily be justified. Anything over needs County Council's involvement & that discourages use.
- Can be hard to get county government to pay for such things.
- It would depend on how much, what is an advanced access feature, and if there is another available source for free.
- Possibly at an organizational level, but I feel strongly that this data should be made freely available to the public.

Answered: 392  Skipped: 39
Suggestions for new capabilities, features or datasets for IndianaMap 2.0?

- Do a comparison with other states that provide similar service to see how we fare and what we might be to improve?
- Ability to only download data within layers (i.e. downloading a town’s corporate boundary out of the boundaries layer)
- clip, zip and ship
- Having API functionality should help to future proof IndianaMap and keep it relevant regardless of other technological advances elsewhere.
- I love IndianaMap! Keep up the good work! You’re providing an amazing public service
- Easier more intuitive interface
- Easy navigation dashboard for GIS professionals, and non-professionals.
- Easy selection feature for downloading LiDAR data.
- An area to send in suggestions for future data
- Building footprints with attribution
- Ability to perform basic buffering and selection of map features and create custom maps and download selected features.
- a tool for error notification which would allow anyone finding an error to provide notice to the source of the data.
- I would like to download our county and not everybody’s. I would like to see an easier way to navigate to the data.
- Regular updates, IndianaMap is a wonderful resource!
- Potentially remote sensing data like Landsat.
- Along with this funding mechanism, requirements need to be placed upon agencies, municipalities, and quasi-governmental organizations to require participation, regular maintenance, and standards.
- I would like to see more tutorials for beginner/intermediate end users.
- I think it would also be really need to have a crowdsourcing function for local community assets.
- Easier to search through layers
IndianaMap 2.0
Survey Results

Thank you
gio@iot.in.gov