Resilience Analysis and Planning Tool (RAPT)

FEMA-Technical Assistance | 2023

Montana Emergency Management Forum

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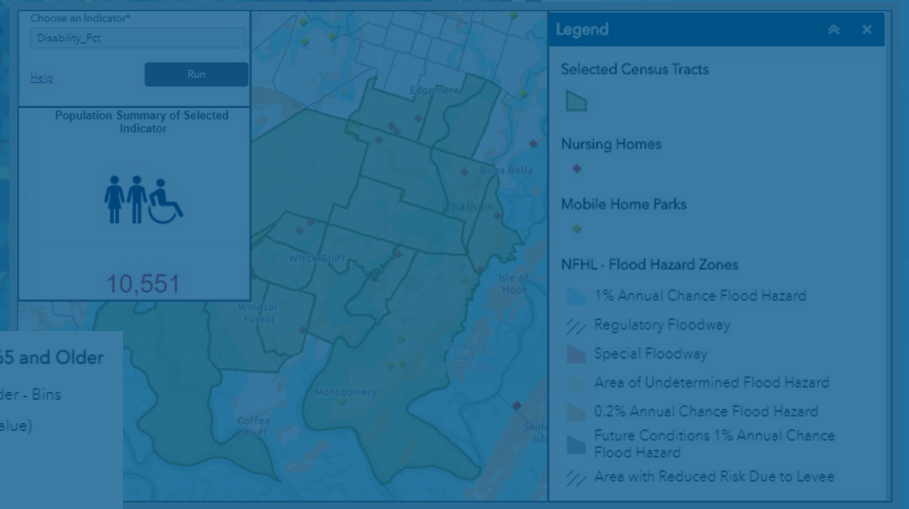

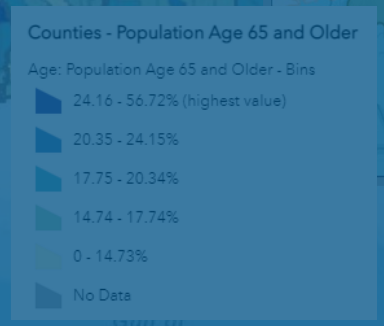

RAPT helps you VISUALIZE and ANALYZE data for all phases of emergency management.

People and Community

Infrastructure

Hazards, Weather, Risk

- RAPT gives everyone a free, no-login required GIS capability.
- Over 100 pre-loaded GIS layers are easy to toggle on and off.
- Easy to use analysis tools: Incident Analysis, Population Counter, Filter.
- Add Data layers from ArcGIS Online, URLs or local files.
- Print or download results to spreadsheets.
- FEMA's Community Resilience Index and Indicators.

RAPT Community Demographics Data

** County data only; ** County and Tribal only; ^ County and Census Tract only; + Census Tract only*

Population Characteristics

- Population without a High School Education
- Population 65 and Older
- Population with a Disability
- Population by Race and Hispanic Origin^

Household Characteristics

- Households without a Vehicle
- Households with Limited English
- Single-Parent Households
- Households without a Smartphone
- Households without Broadband Subscription+

Housing

- Mobile Homes as Percentage of Housing
- Owner-Occupied Housing
- Rental Housing Costs^
- Residential Structures in SHFA with Flood Insurance*

Healthcare

- Number of Hospitals*
- Medical Professional Capacity**
- Population without Health Insurance
- Medicare Recipients with Power-Dependent Devices*

Economic

- Population Below Poverty Level
- Median Household Income
- Unemployed Labor Force
- Unemployed Women Labor Force
- Income Inequality
- Workforce in Predominant Sector

Connection to Community

- Presence of Civic and Social Organizations*
- Population without Religious Affiliation*
- Percentage of Inactive Voters*
- Population Change*

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County and Census Tract Community Resilience Index (CRI) combining 22 indicators.

Infrastructure Data: Homeland Infrastructure Foundation-Level Data Open

- Hospitals
- Nursing Homes
- Pharmacies
- Urgent Care Facilities
- Dialysis Centers
- Mobile Home Parks
- Fire Stations
- Local Law Enforcement Locations
- Public Health Departments
- 911 Service Area Boundaries
- SNAP Authorized Retailers

- Places of Worship
- Colleges and Universities
- Private Schools
- Public Schools
- Prison Boundaries
- Power Plants
- Electric Transmission Lines
- Wastewater Treatment Plants
- Solid Waste Landfills
- High-Hazard Dams

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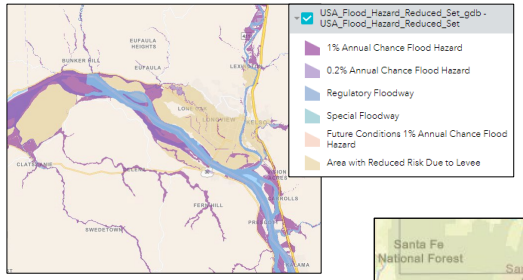
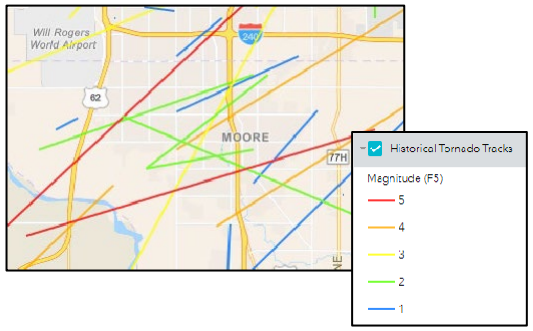
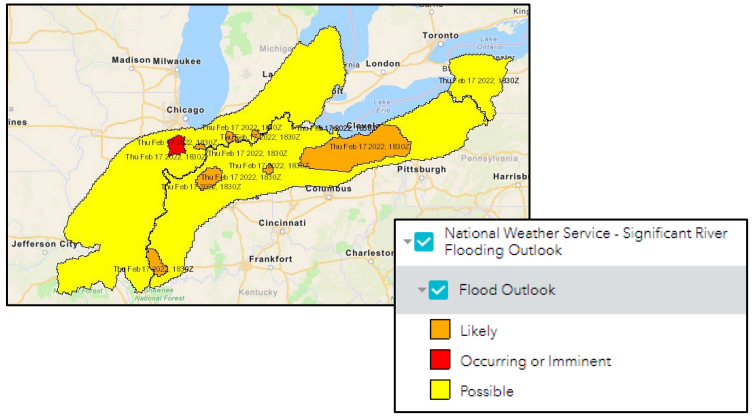
Hazards, Weather and Risk Data

- Live Stream Gauges
- Flood Hazard
- Hurricane Tracks (1990+)
- Historical Tornado Tracks
- Wildfires – Current Incidents (Points)
- Wildfires – Current incidents (Perimeters)
- Seismic Hazard
- National Risk Index Census Tracts
- NOAA Sea Level Rise (4-6 ft.)
- NWS Severe Weather Watches and Warnings
- NWS Severe Weather Outlook
- NWS Atlantic/Caribbean Tropical Cyclones
- NWS Eastern Pacific Tropical Cyclones
- NWS Excessive Rainfall Outlook
- NEXRAD Real-Time Weather Radar







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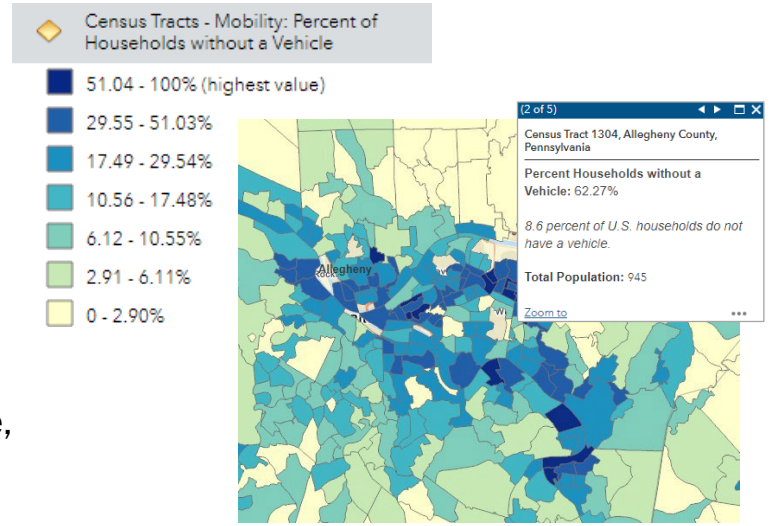
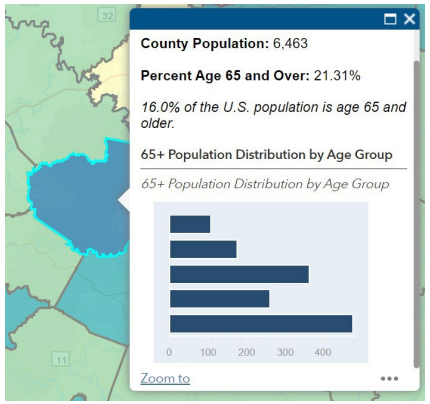
Visualizing Data in RAPT

- **Data Binning:**
  County = 5 bins
  Census Tract = 7 bins
  Tribal = 5 bins

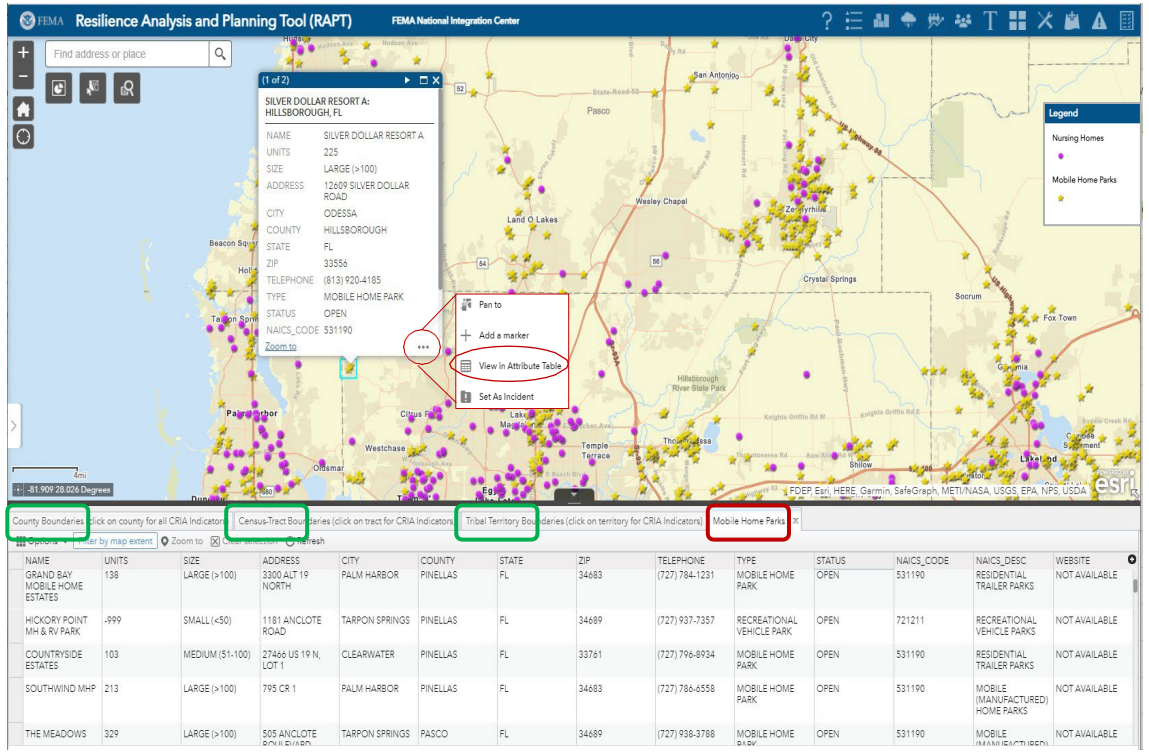
- **Pop-up boxes:**
  Additional information for each data point: population, infrastructure, and hazards

- **Attribute tables:**
  - By map extent
  - By FEMA region, state, county, zip code
  - Select rows



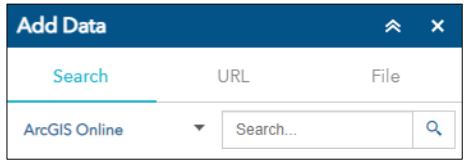


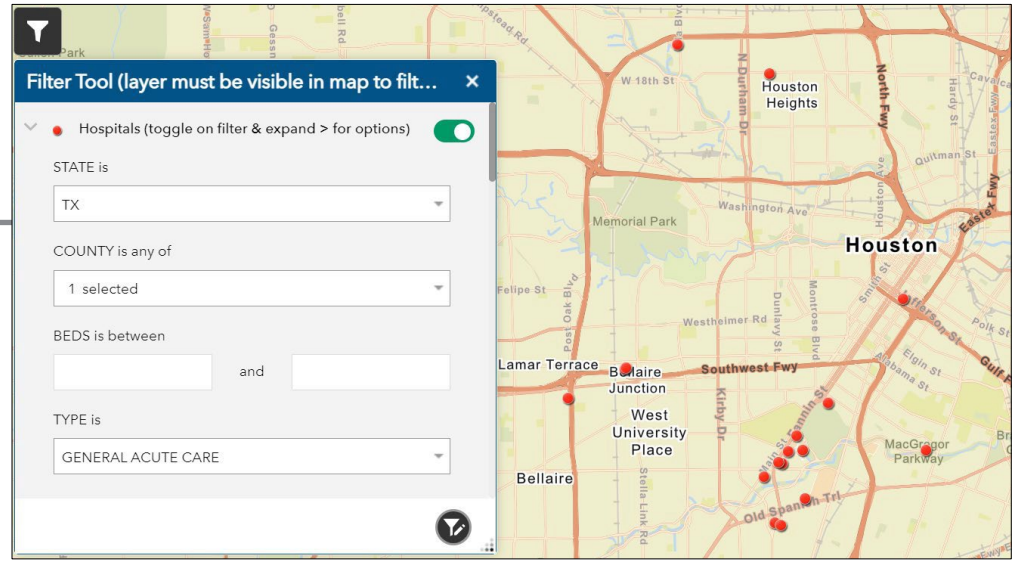
age, disabilities, language, race

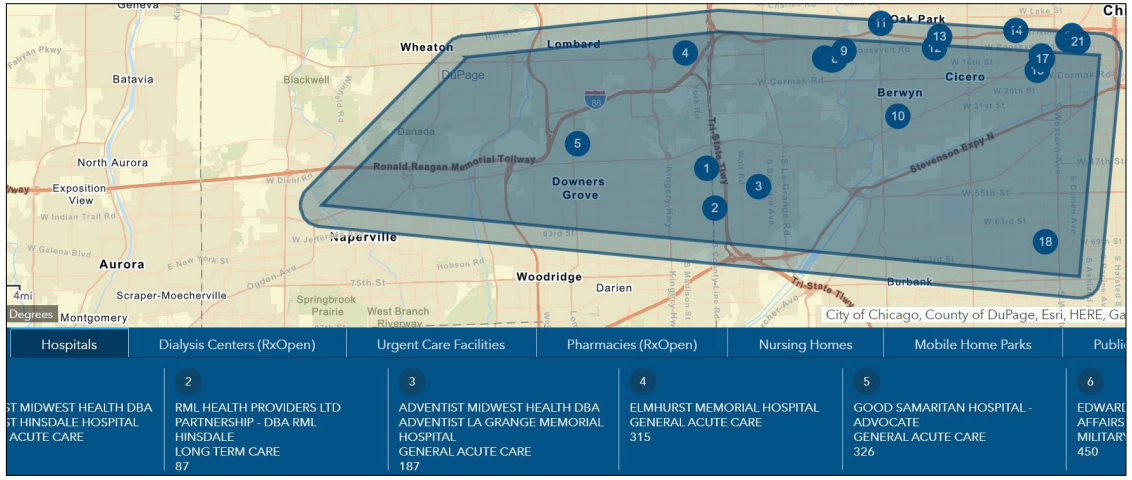


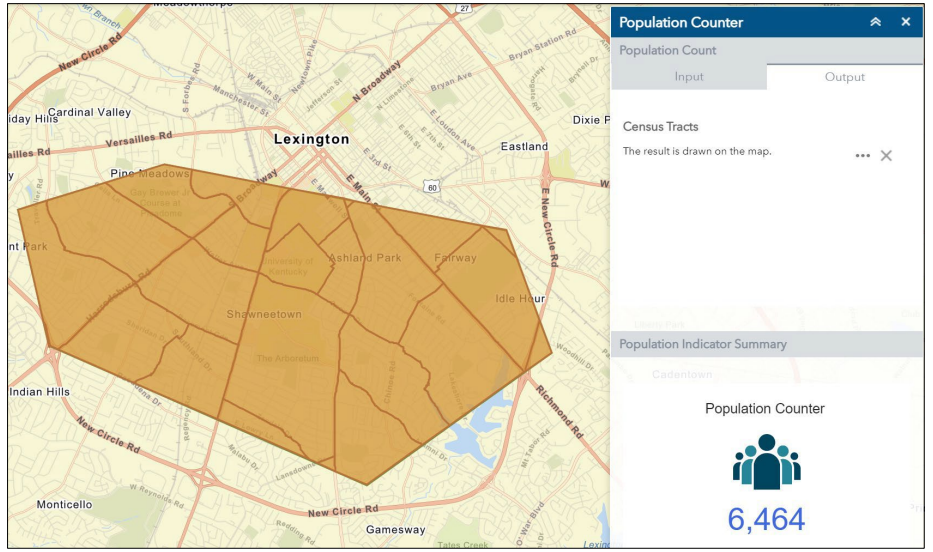
Analyzing Data in RAPT

- Analysis Tools
  - Add Data
  - Filter Tool
  - Population Counter
  - Incident Analysis Tool









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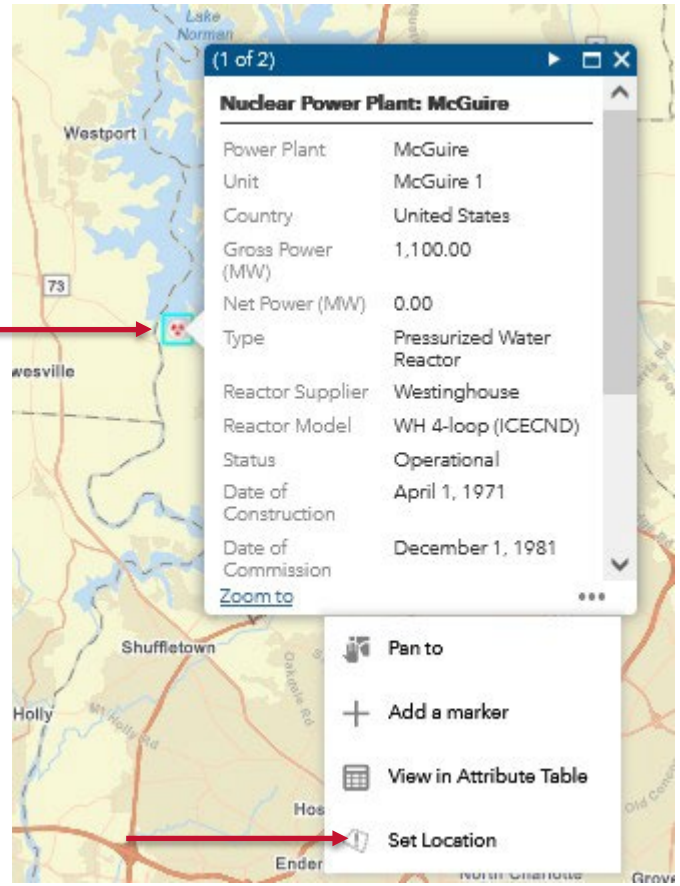
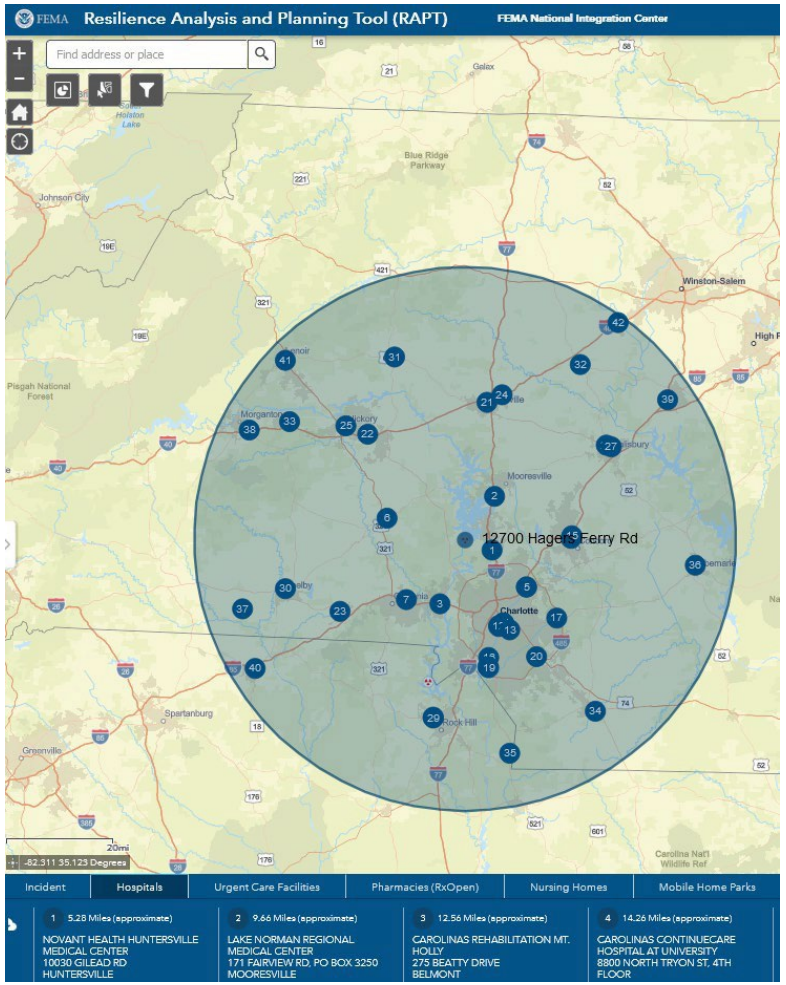
Add Data and Incident Analysis





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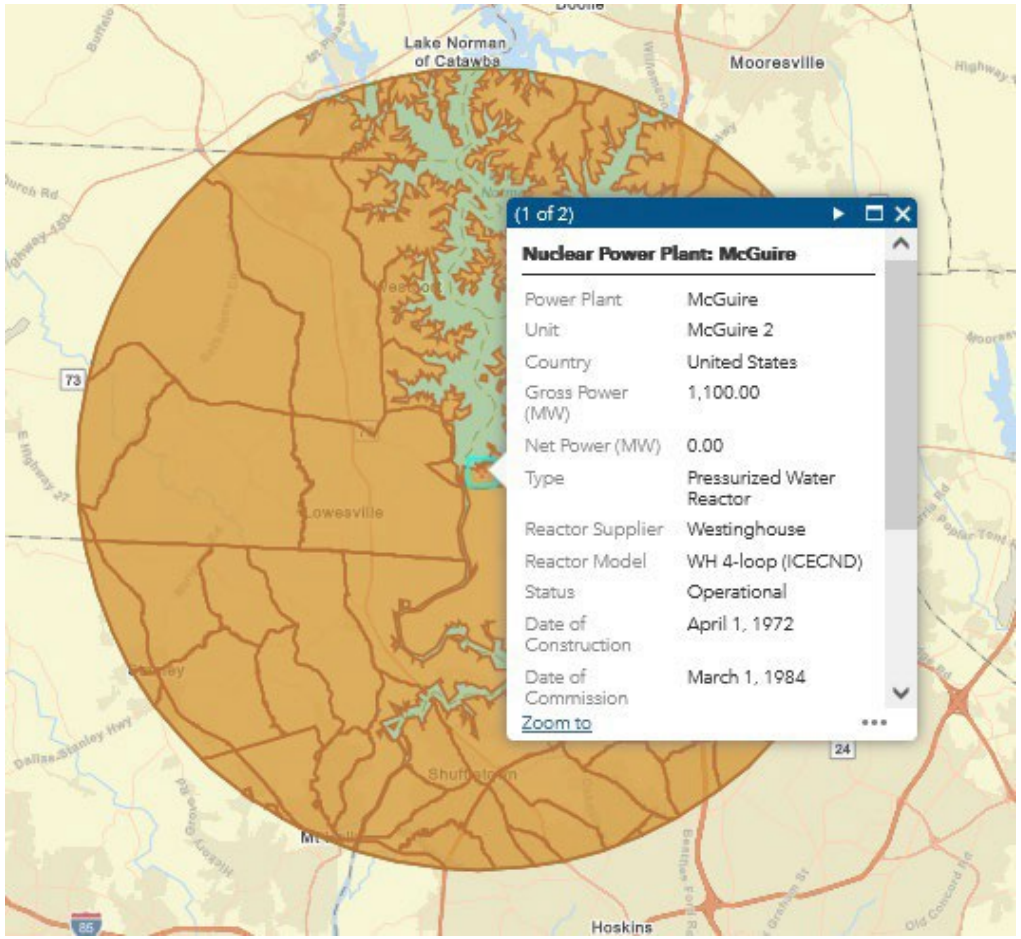
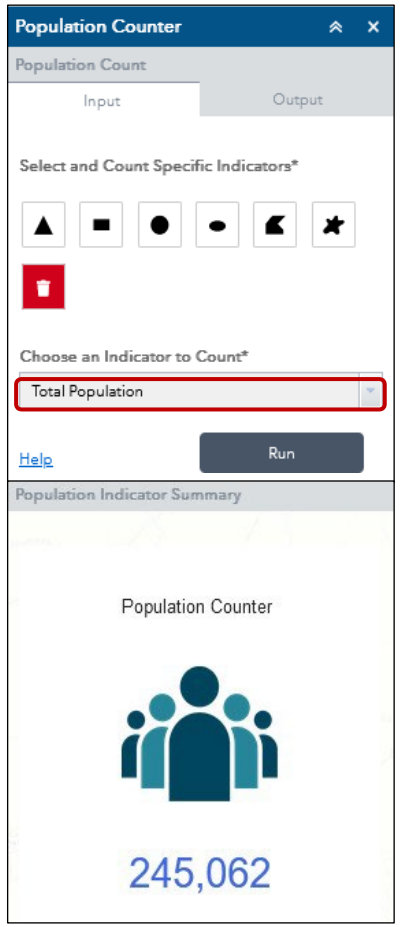
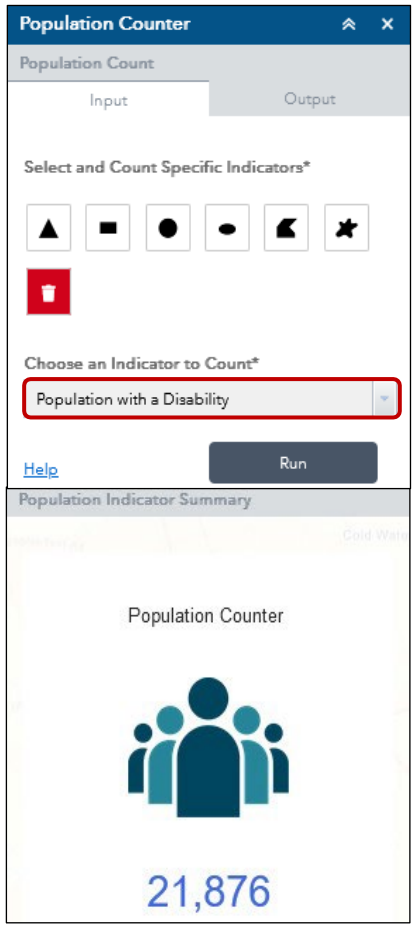
Population Counter

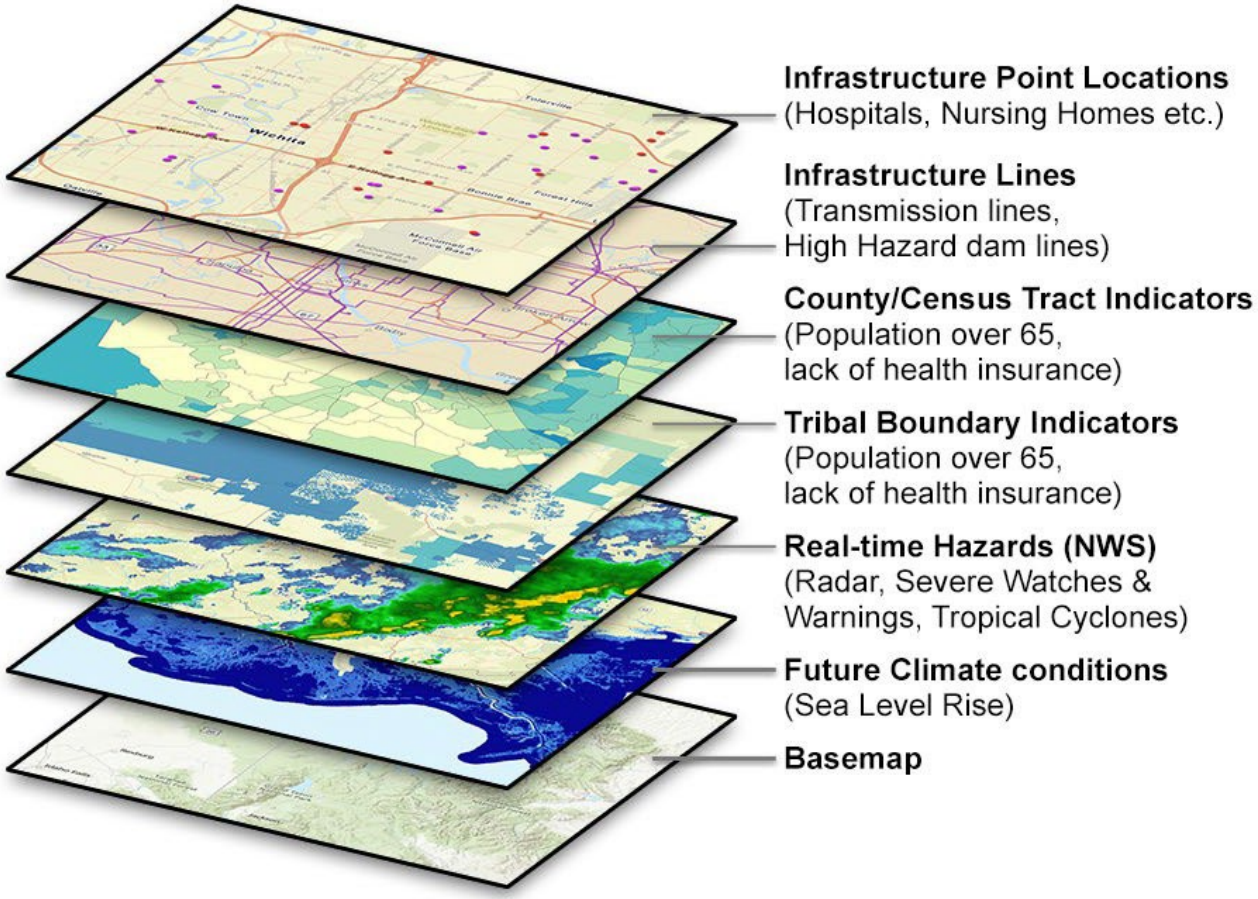






Total Population
Population without HS Diploma
Population Unemployed
Population with a Disability
HH with Limited English
HH without a Vehicle
Population Age 65 and Over
Population without Health Insurance
Single Parent HH
HH without Smartphone
Population Living Below Poverty Level
Population Living in Mobile Homes

Holistic Analysis of RAPT Data



RAPT combines multiple data sets and analysis tools to support situational awareness for all phases of emergency management.

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RAPT Resource Center

- RAPT overview
- Use Cases
- Indicator Analysis
- Data Sources
- User Guide and FAQs
- Instructional video
- [Contact us email: FEMA-TARequest@fema.dhs.gov](mailto:FEMA-TARequest@fema.dhs.gov)

Send Us Your Use Cases!!

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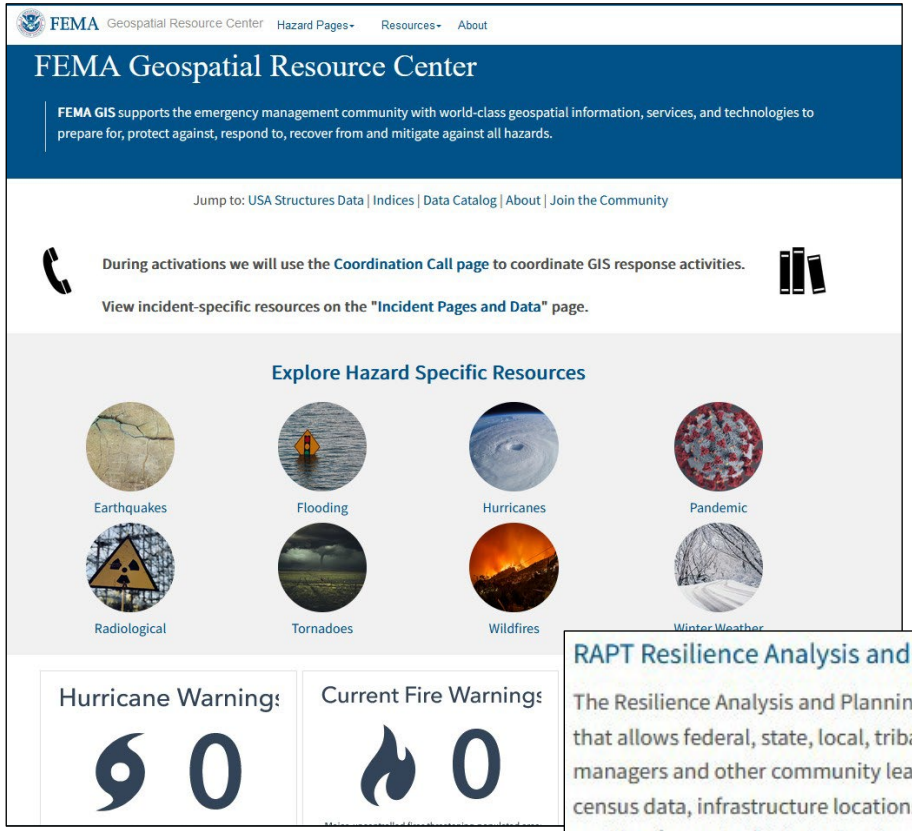
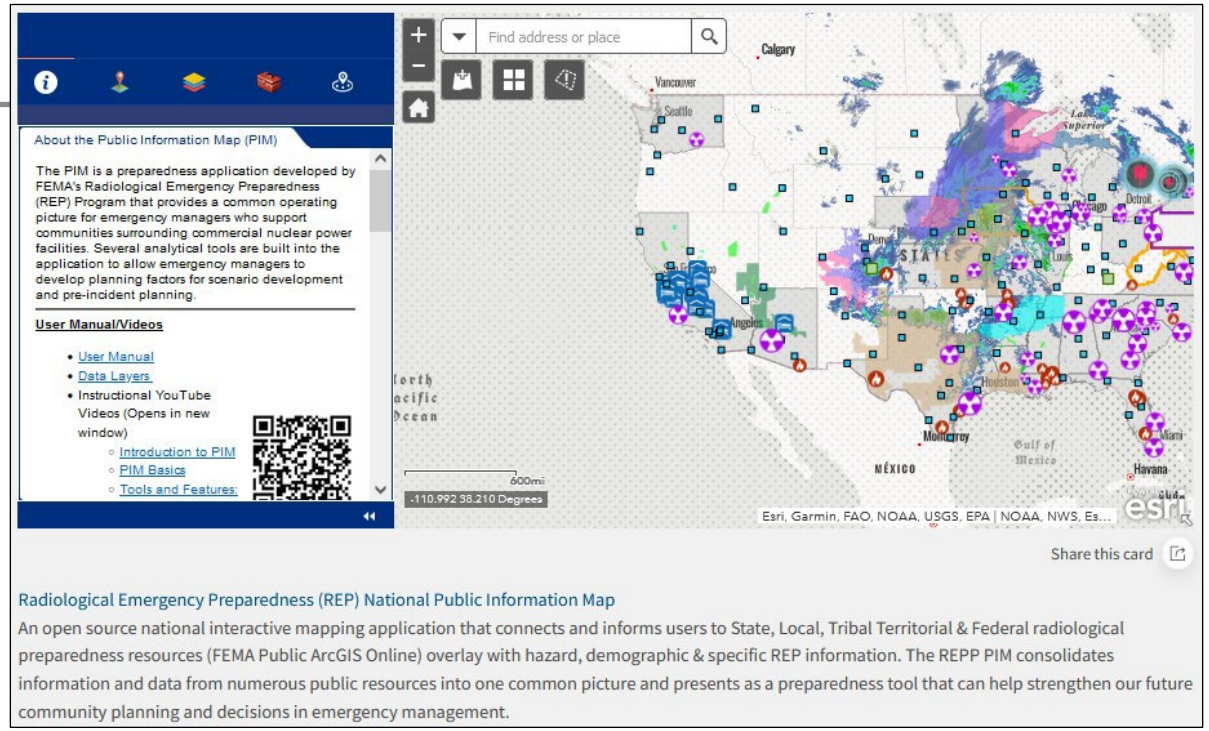
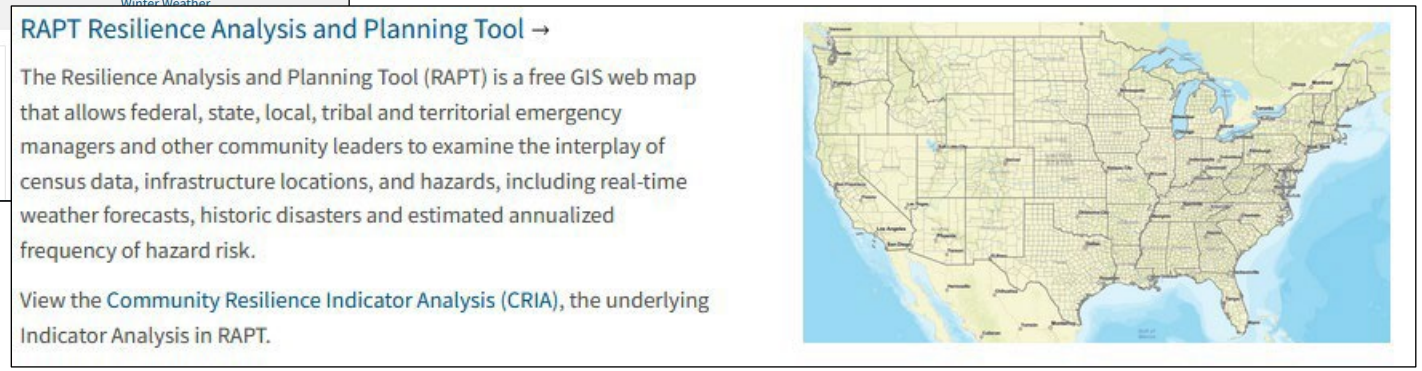
FEMA Geospatial Resource Center







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Questions & Discussion

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