

FEMA Region 4 GIS Resource Center

State Government Users and Federal Interagency Committees Joint Meeting
February 2025



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Specialist (Geospatial)

GIS Resource Centers Mission

Mission Statement:

To provide comprehensive geospatial support and expertise in emergency management, enhancing preparedness, response, recovery, and mitigation efforts across FEMA Region 4.



Services We Provide:

- GIS Coordination during Disaster Response Operations
- Data Modeling and Analysis
- Remote Sensing and Imagery Collection

Key Stakeholders:

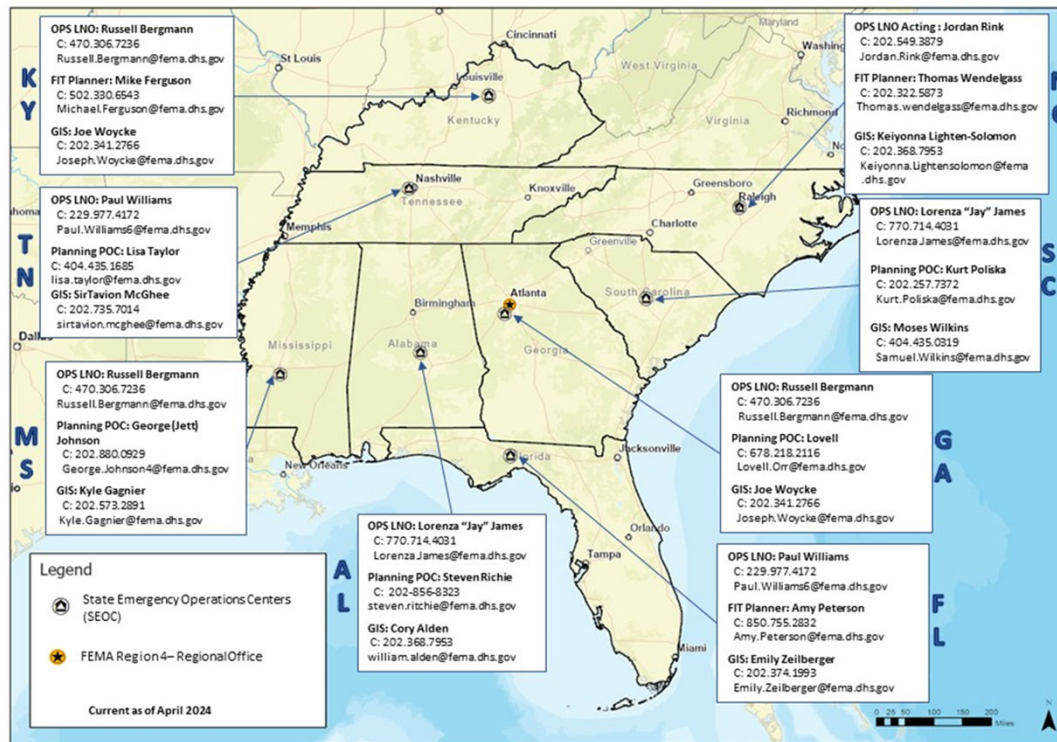
- Regional Response Coordination Center (RRCC)
- Watch Unit & Threat Analysis Unit
- Response Operational Planning
- IMAT and FIT Teams
- Recovery Disaster Declaration Unit
- State, County, Local, and Tribal GIS Managers
- Federal Partner Agencies



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GIS State Assignments

OPS, Planning, and GIS State Assignments



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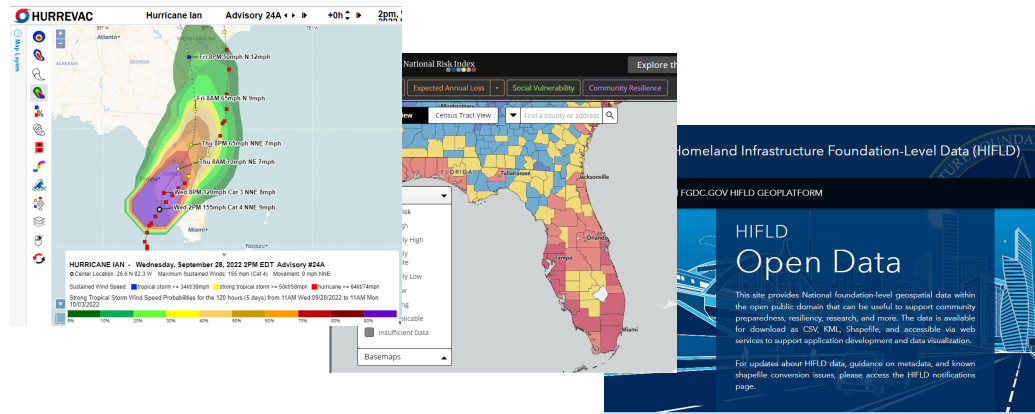
Key Datasets We Utilize ?

Primary Data Sources:

- ❑ American Community Survey (ACS)
- ❑ [FEMA Community Resilience Challenges Index](#)
- ❑ Homeland Infrastructure Foundation Level Data (HIFLD)
- ❑ [National Risk Index \(NRI\)](#)
- ❑ USA Structures

Collaboration with Partner Agencies:

- ❑ Sharing insights and datasets to enhance decision-making.



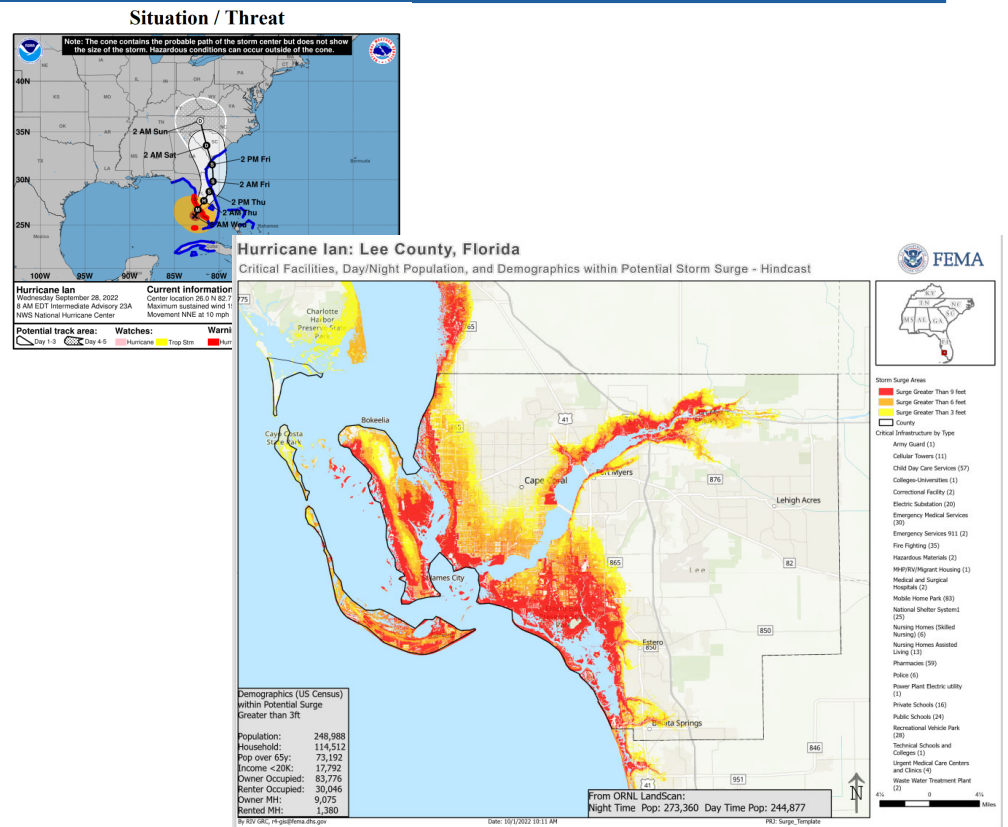
Leveraging the Data

Key Benefits to Emergency Managers:

- ❑ Identify areas where vulnerable populations are most at risk.
- ❑ Assess potential impacts on community lifelines.
- ❑ Prioritize disaster response and recovery operations effectively.

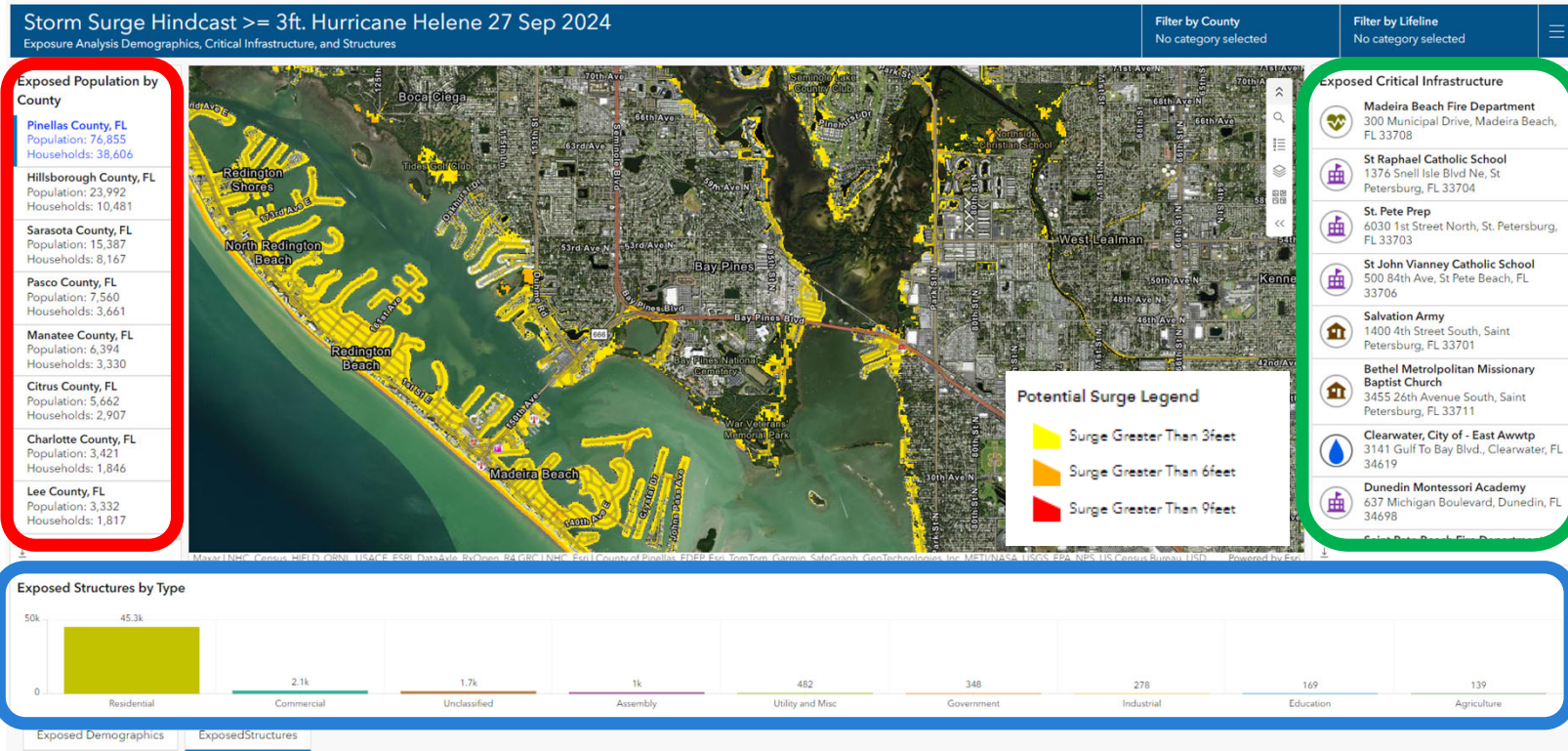
Outcome:

Emergency Managers are equipped to allocate resources promptly and strategically.



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Analysis Example: Hurricane Storm Surge Model (NHC)



Exposed Demographic Information

Exposed Critical Infrastructure

Exposed Structures by Type

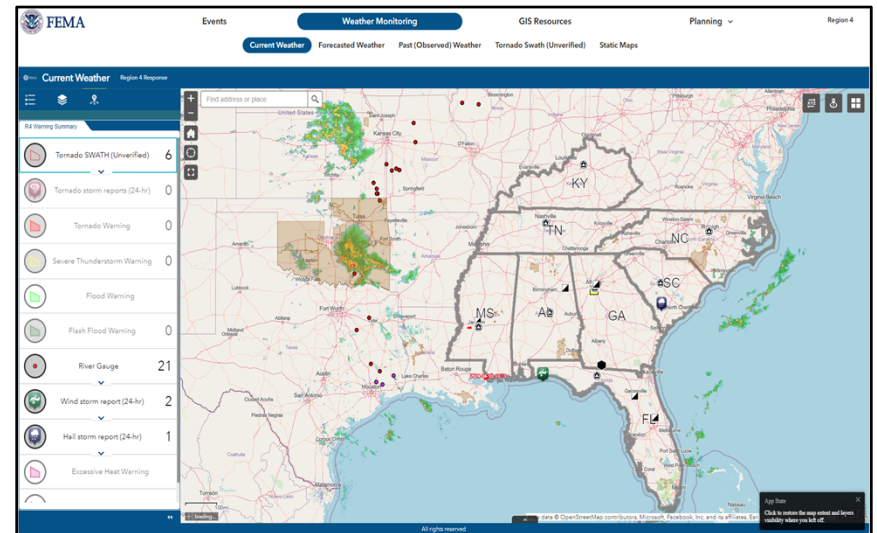


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How We Share Information

Communication and Tools:

- ❑ WebEOC (Official Database of Record)
 - ❑ Static GIS can be found in geospatial library
- ❑ GIS Coordination Calls – SLTT partners
 - ❑ Hosted daily, during RRCC activation
- ❑ State GIS Liaisons and FIT Planners
- ❑ ArcGIS Online Web Application: Region 4 Situational Awareness Journal



Situational Awareness Journal

Incident Data

- ❑ Storm Surge, Inundation, Wind models based on major advisories
- ❑ US&R
- ❑ Damage assessment data (multi-agency)
- ❑ Remote Sensing
- ❑ Recovery (PDAs)
- ❑ Data from States
- ❑ Static products (Force Laydown, Dec Map)

Steady State

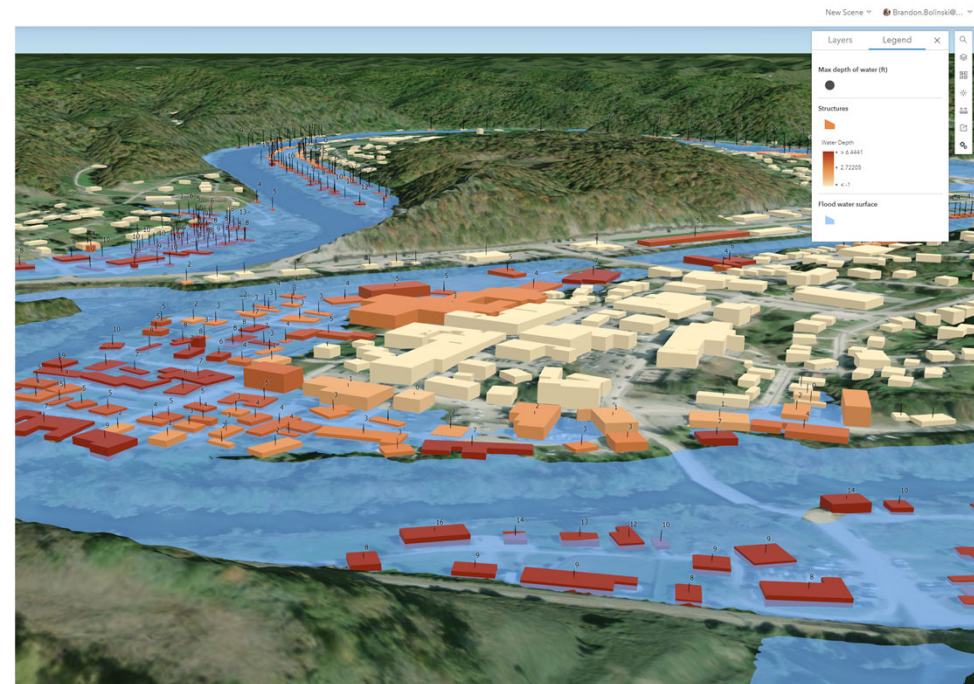
- ❑ RAPT Tool
- ❑ Planning Tools
- ❑ NWS Watches/Warnings
- ❑ Radar



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Areas of Success

- Assisted in informing Field (IMAT), Regional and HQ Leadership on the potential **scope of impacts** in areas that little to no information was coming out of due to disrupted communications and physical damage.
- Provided modeled impact data (**damage, demographic and socioeconomic**) to the Declarations Unit to assist in proceeding State DR request.
- Ability to track the progress of US&R, DSA and Joint PDA efforts
- Provided Logistics with **population estimates** which allowed formulation of commodity requirements in anticipation of request(s) from States
- Informed both the Mass Care and Individual Assistance programs on areas that were projected to have receive the **greatest extent of damage and 'pockets of need'** that may be isolated due to flooding/damaged infrastructure.



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How to Reach Us

Contact Information:

- Email: r4-gis@fema.dhs.gov

Collaborating on ArcGIS Online:

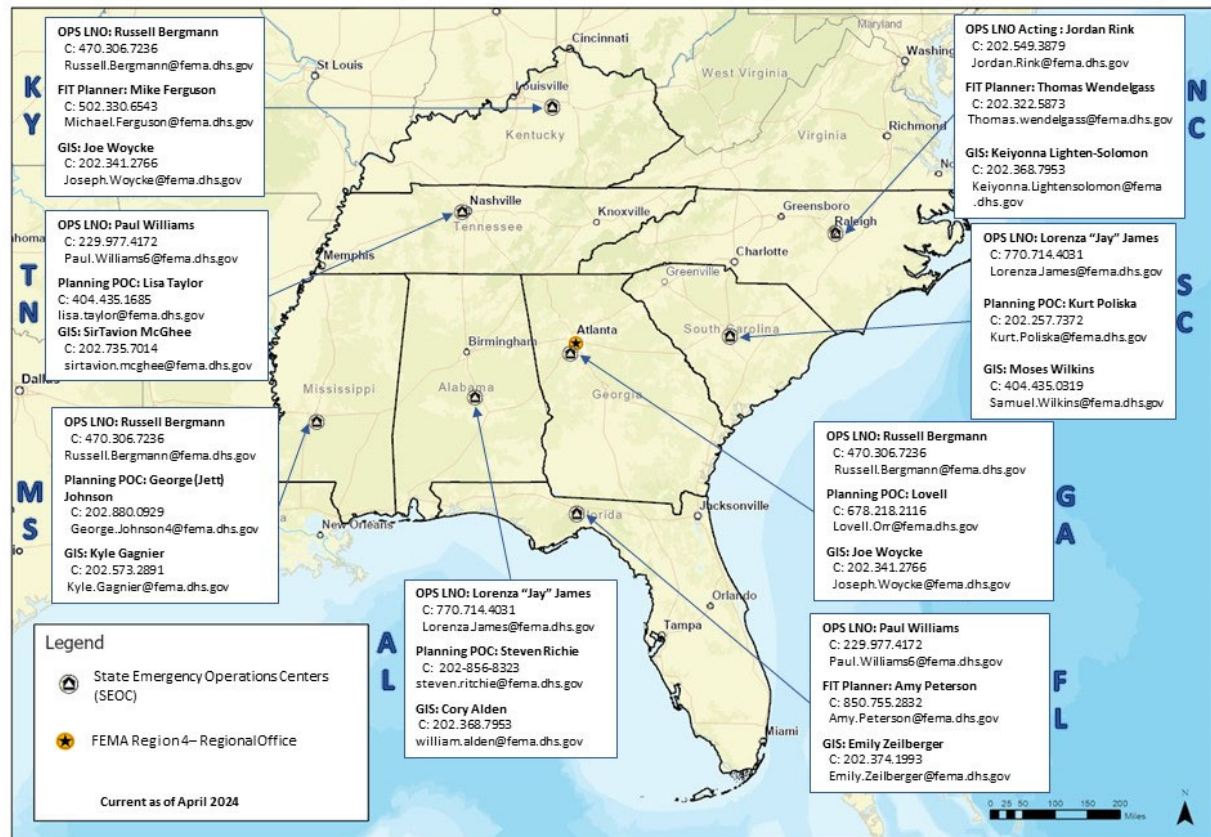
- Join Our Partner Collaboration Group: [FEMA R4 State Partners – Overview](#)

1. Contact us using your official organization email.
2. Work through your State Emergency Management office for coordination.



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OPS, Planning, and GIS State Assignments



Additional FEMA Resources

- Community Resilience Challenges Index
 - Documentation: [CRIA Methodology 2022](#)
 - Data: [FEMA Community Resilience Challenges Index \(CRCI\) Counties - Overview](#) ; [FEMA Community Resilience Challenges Index \(CRCI\) Census Tracts - Overview](#)
- National Risk Index
 - Documentation: [National Risk Index Technical Documentation](#)
 - Data: [National Risk Index | FEMA.gov](#)
- Resilience Analysis Planning Tool
 - Documentation: [RAPT](#)
 - Data: [Future Resilience Analysis and Planning Tool \(RAPT\) - PRODUCTION](#)



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