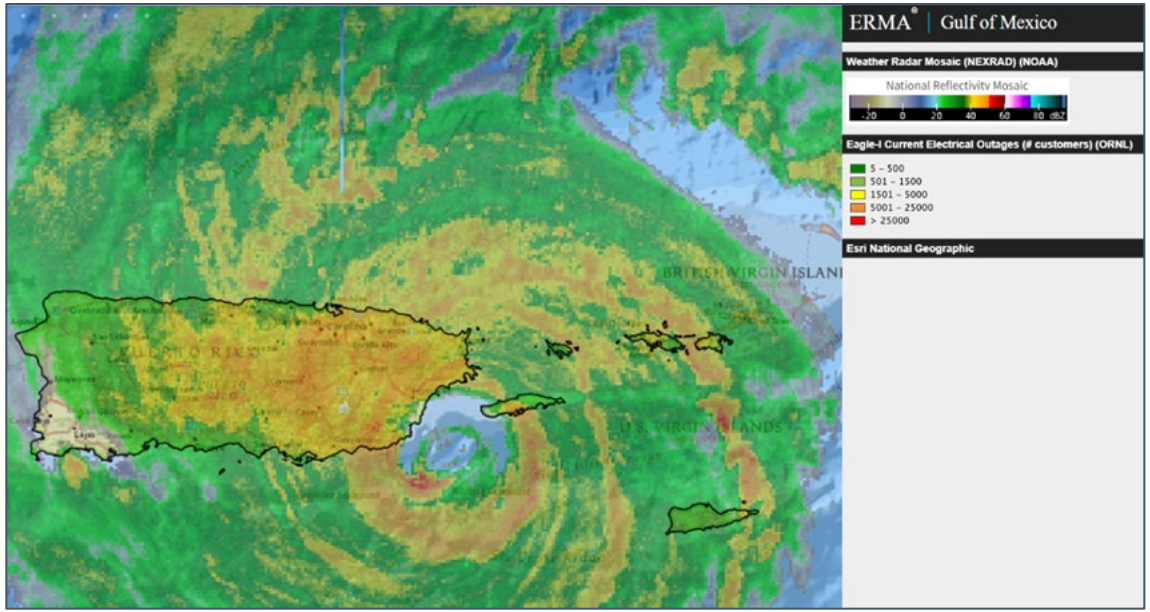
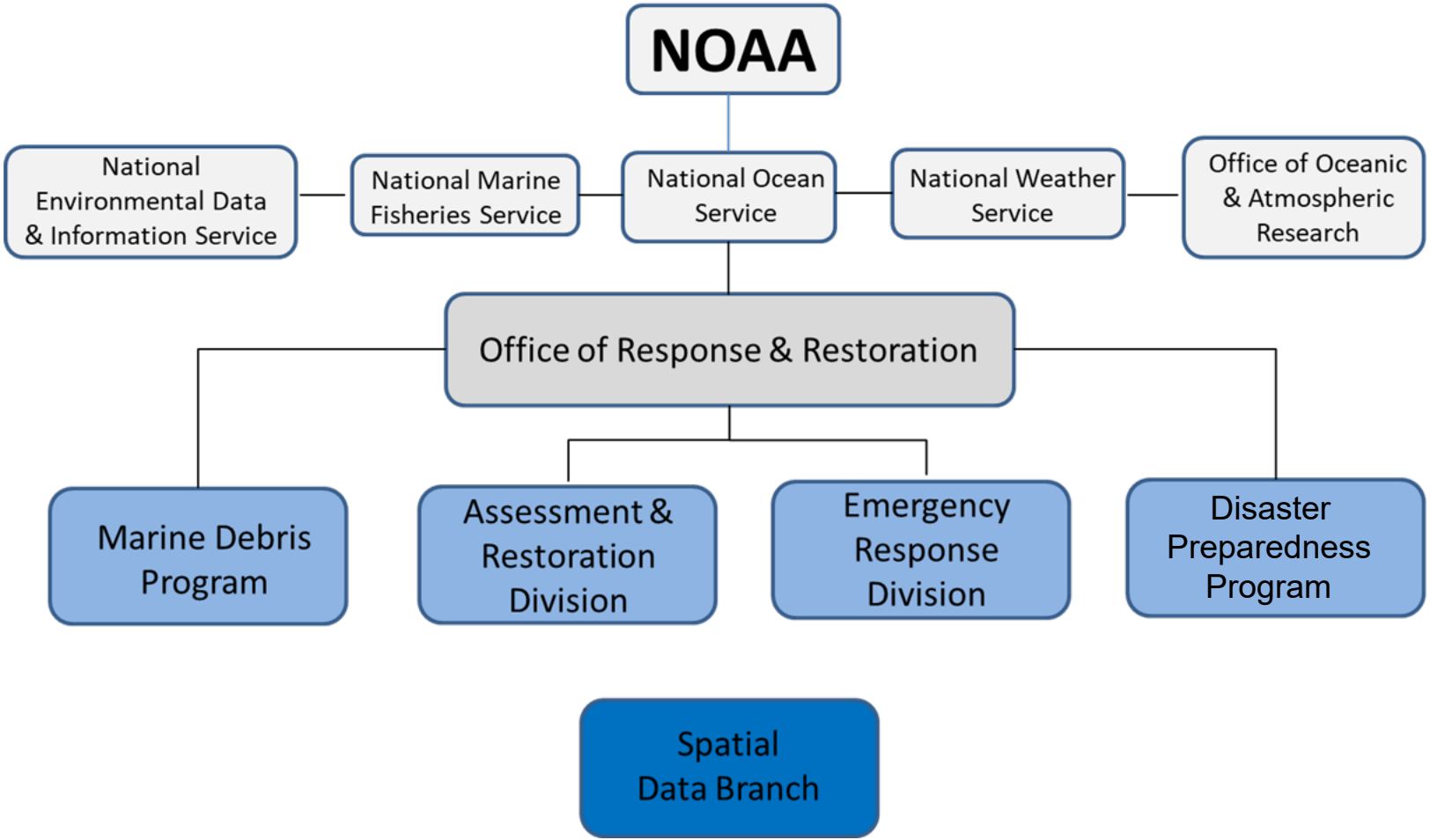
The Environmental Response Management Application ERMA®

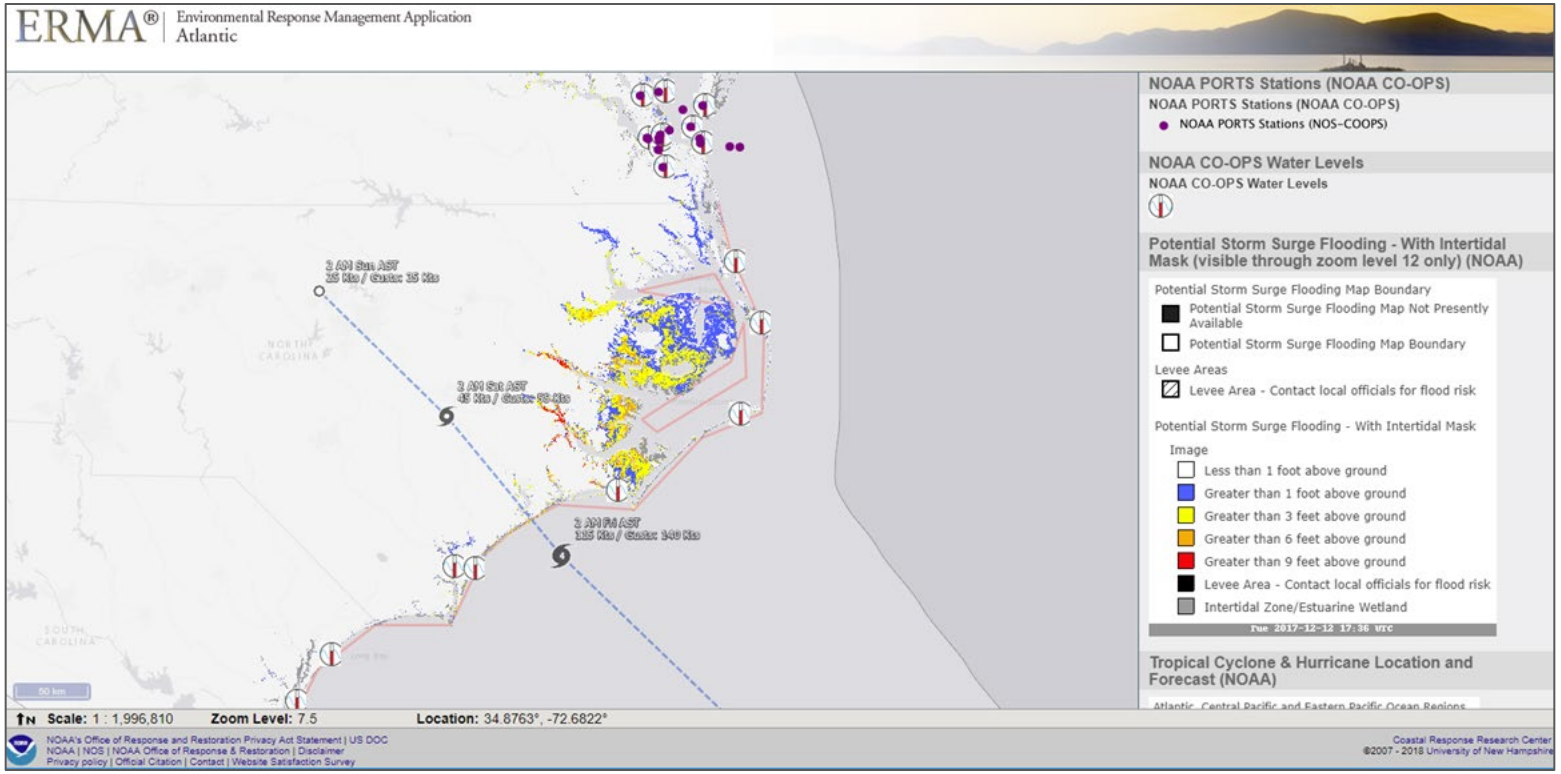


Jay Coady
Office of Response & Restoration
Assessment and Restoration Division
Spatial Data Branch

https://erma.noaa.gov/caribbean
response.restoration.noaa.gov


NOAA
National Environmental Data & Information Service
National Marine Fisheries Service
National Ocean Service
National Weather Service
Office of Oceanic & Atmospheric Research
Office of Response & Restoration
Marine Debris Program
Assessment & Restoration Division
Emergency Response Division
Disaster Preparedness Program
Spatial Data Branch

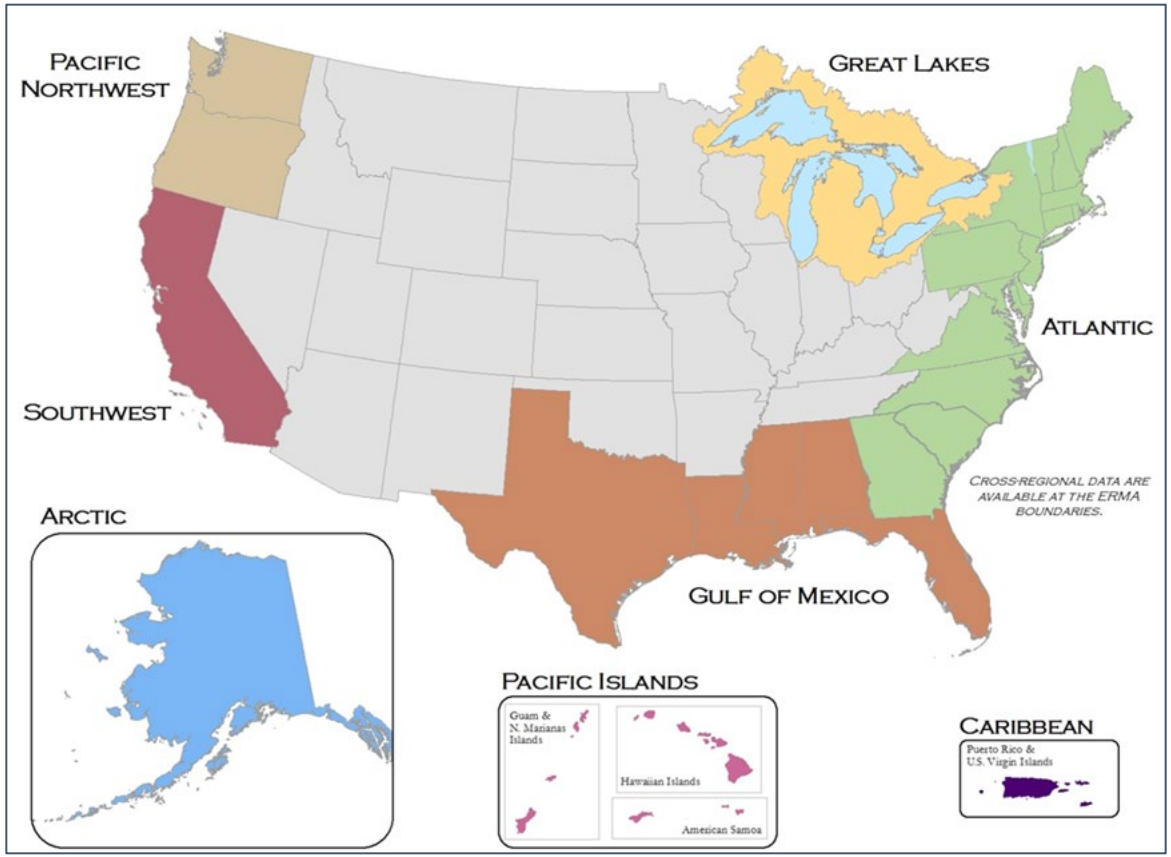
ERMA is an online mapping tool for visualizing environmental information relevant to oil spills and natural disasters.



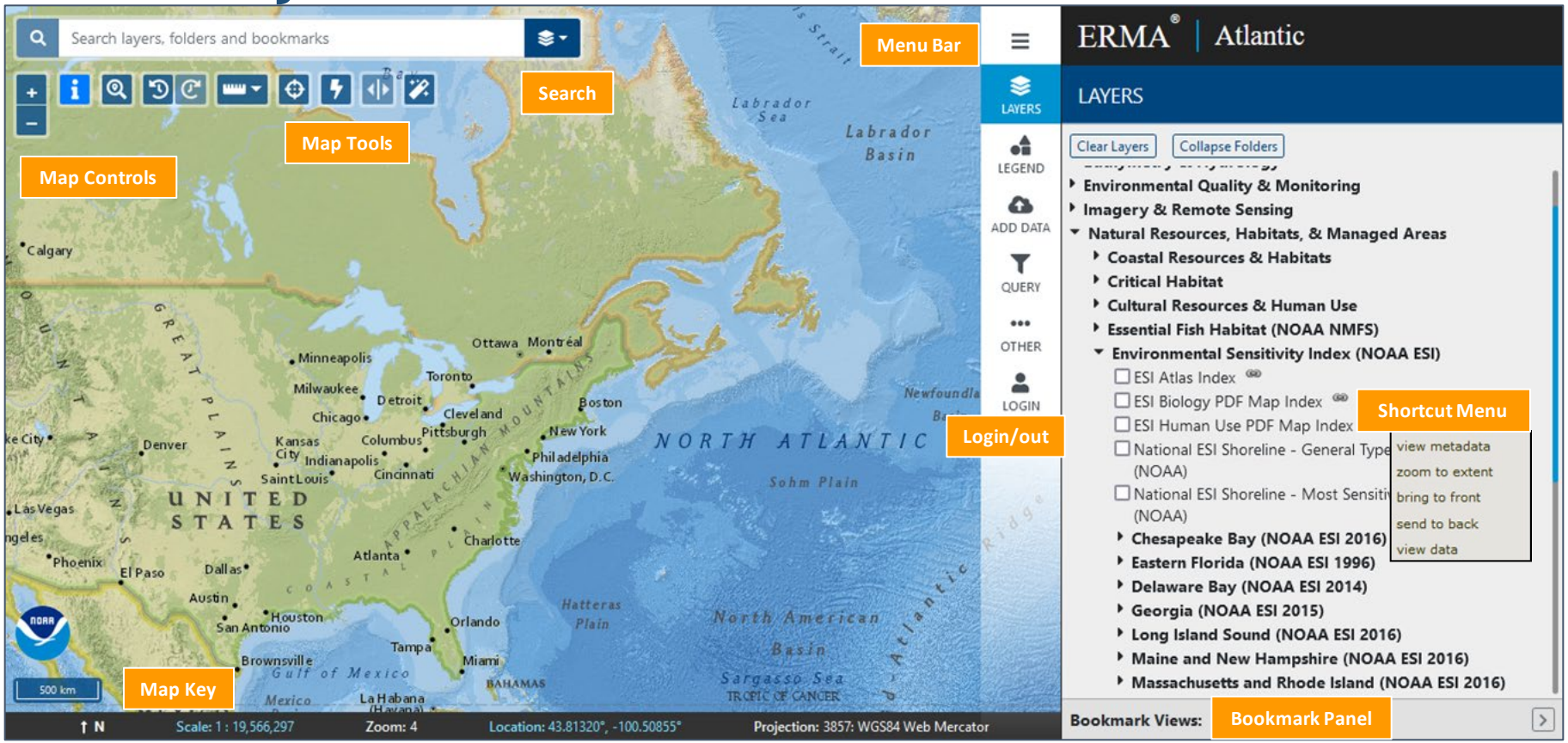
Key Functionality

- Access ERMA via any Web browser. No special software needed.
- Provides centralized access to information
- Tiered system security that protects data.
- Standardized user interface; simplifying data uploading.
- Build customized maps using layers.
- Create and view customized sets of layers quickly with bookmarked views.
- Investigate and compare data quickly with Dashboards an

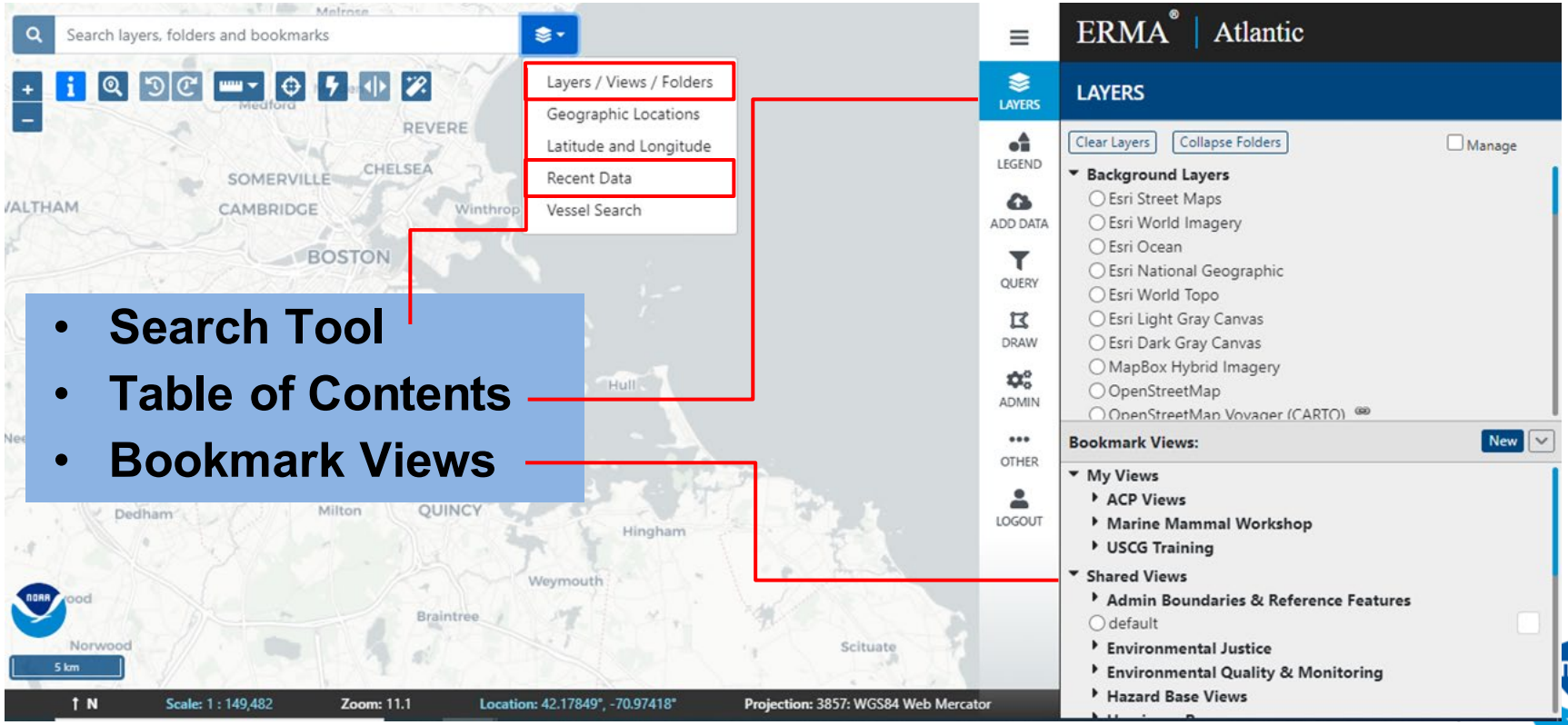
ERMA Regions



ERMA Layout

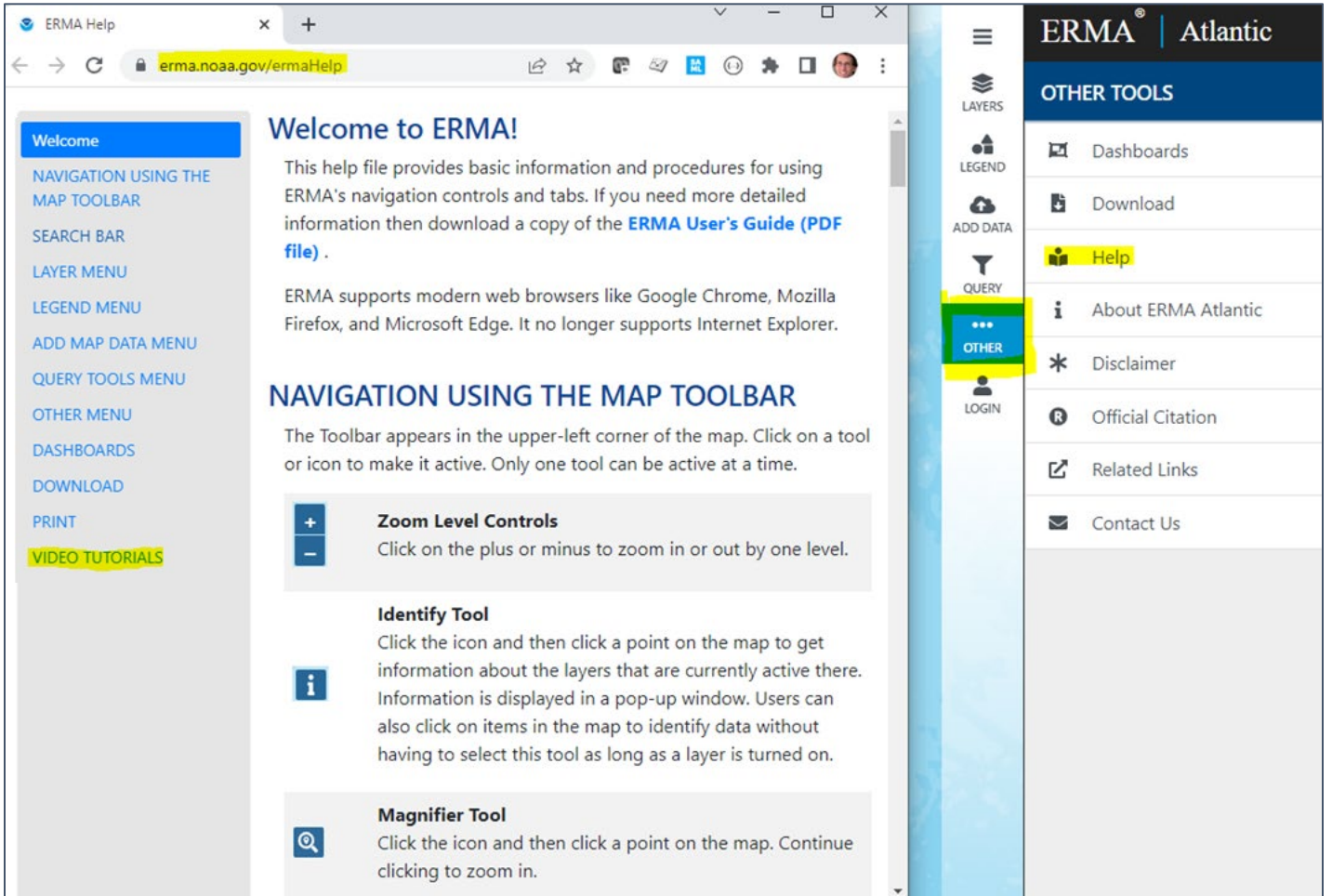

Search layers, folders and bookmarks
Menu Bar
Search
Map Tools
Map Controls
Map Key
Login/out
Shortcut Menu
Bookmark Panel
ERMA® | Atlantic
LAYERS
LEGEND
ADD DATA
QUERY
OTHER
LOGIN
Clear Layers
Collapse Folders
Environmental Quality & Monitoring
Imagery & Remote Sensing
Natural Resources, Habitats, & Managed Areas
Coastal Resources & Habitats
Critical Habitat
Cultural Resources & Human Use
Essential Fish Habitat (NOAA NMFS)
Environmental Sensitivity Index (NOAA ESI)
ESI Atlas Index
ESI Biology PDF Map Index
ESI Human Use PDF Map Index
National ESI Shoreline - General Type (NOAA)
National ESI Shoreline - Most Sensiti (NOAA)
Chesapeake Bay (NOAA ESI 2016)
Eastern Florida (NOAA ESI 1996)
Delaware Bay (NOAA ESI 2014)
Georgia (NOAA ESI 2015)
Long Island Sound (NOAA ESI 2016)
Maine and New Hampshire (NOAA ESI 2016)
Massachusetts and Rhode Island (NOAA ESI 2016)
view metadata
zoom to extent
bring to front
send to back
view data
Bookmark Views:
Labrador Sea
Labrador Basin
NORTH ATLANTIC
Sohm Plain
North American Basin
Sargasso Sea
Hatteras Plain
Gulf of Mexico
UNITED STATES
Calgary
Minneapolis
Milwaukee
Chicago
Detroit
Toronto
Ottawa
Montréal
Cleveland
Pittsburgh
Boston
New York
Philadelphia
Washington, D.C.
Columbus
Kansas City
Indianapolis
Cincinnati
Saint Louis
Denver
Las Vegas
Phoenix
El Paso
Dallas
Austin
Houston
San Antonio
Atlanta
Charlotte
Orlando
Tampa
Miami
Brownsville
La Habana
BAHAMAS
500 km
Scale: 1 : 19,566,297
Zoom: 4
Location: 43.81320°, -100.50855°
Projection: 3857: WGS84 Web Mercator

Finding Data



- **Search Tool**
- **Table of Contents**
- **Bookmark Views**

ERMA Help


ERMA Help
erma.noaa.gov/ermaHelp
Welcome
NAVIGATION USING THE MAP TOOLBAR
SEARCH BAR
LAYER MENU
LEGEND MENU
ADD MAP DATA MENU
QUERY TOOLS MENU
OTHER MENU
DASHBOARDS
DOWNLOAD
PRINT
VIDEO TUTORIALS
Welcome to ERMA!
This help file provides basic information and procedures for using ERMA's navigation controls and tabs. If you need more detailed information then download a copy of the ERMA User's Guide (PDF file) .
ERMA supports modern web browsers like Google Chrome, Mozilla Firefox, and Microsoft Edge. It no longer supports Internet Explorer.
NAVIGATION USING THE MAP TOOLBAR
The Toolbar appears in the upper-left corner of the map. Click on a tool or icon to make it active. Only one tool can be active at a time.
Zoom Level Controls
Click on the plus or minus to zoom in or out by one level.
Identify Tool
Click the icon and then click a point on the map to get information about the layers that are currently active there. Information is displayed in a pop-up window. Users can also click on items in the map to identify data without having to select this tool as long as a layer is turned on.
Magnifier Tool
Click the icon and then click a point on the map. Continue clicking to zoom in.
LAYERS
LEGEND
ADD DATA
QUERY
OTHER
LOGIN
ERMA Atlantic
OTHER TOOLS
Dashboards
Download
Help
About ERMA Atlantic
Disclaimer
Official Citation
Related Links
Contact Us

ERMA Accounts

- Public access - no login required
- Restricted accounts:
  - Verified by NOAA
  - Various levels of access
    - Active incidents
    - Sensitive datasets
    - NRDA/Trustee
    - Drills
  - Password reset 90 days; inactive accounts 6 months
  - Data available only to appropriate users and use

ERMA URL: https://erma.noaa.gov/caribbean

Account Support: orr.ermaaccounts@noaa.gov

Response With ERMA

- Base environmental data
- Live data streams
    - Storm tracking, surge modeling, current water levels, ship locations, and more.
- Critical infrastructure
- Pre/post storm imagery
- Quick turnaround post storm data
- Live tracking of ESF-10 targets
- Tools to explore data

Environmental Sensitivity Index (ESI)

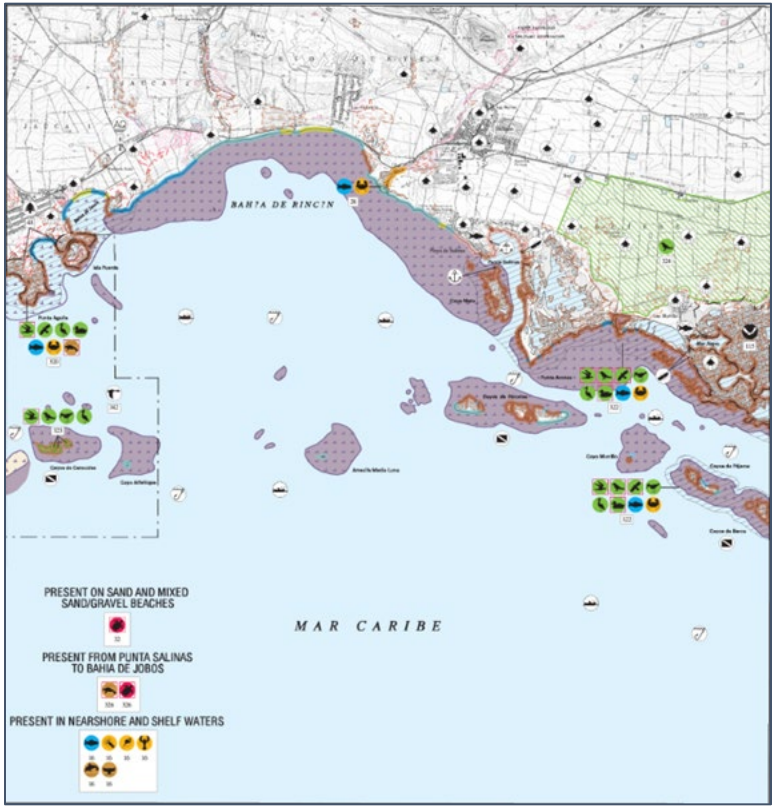
- NOAA maintains the ESIs to provide information about sensitivity to oil spills
- Spill planning, spill response
- Plants, animals, shoreline, habitats and human use data

NOAA Site:

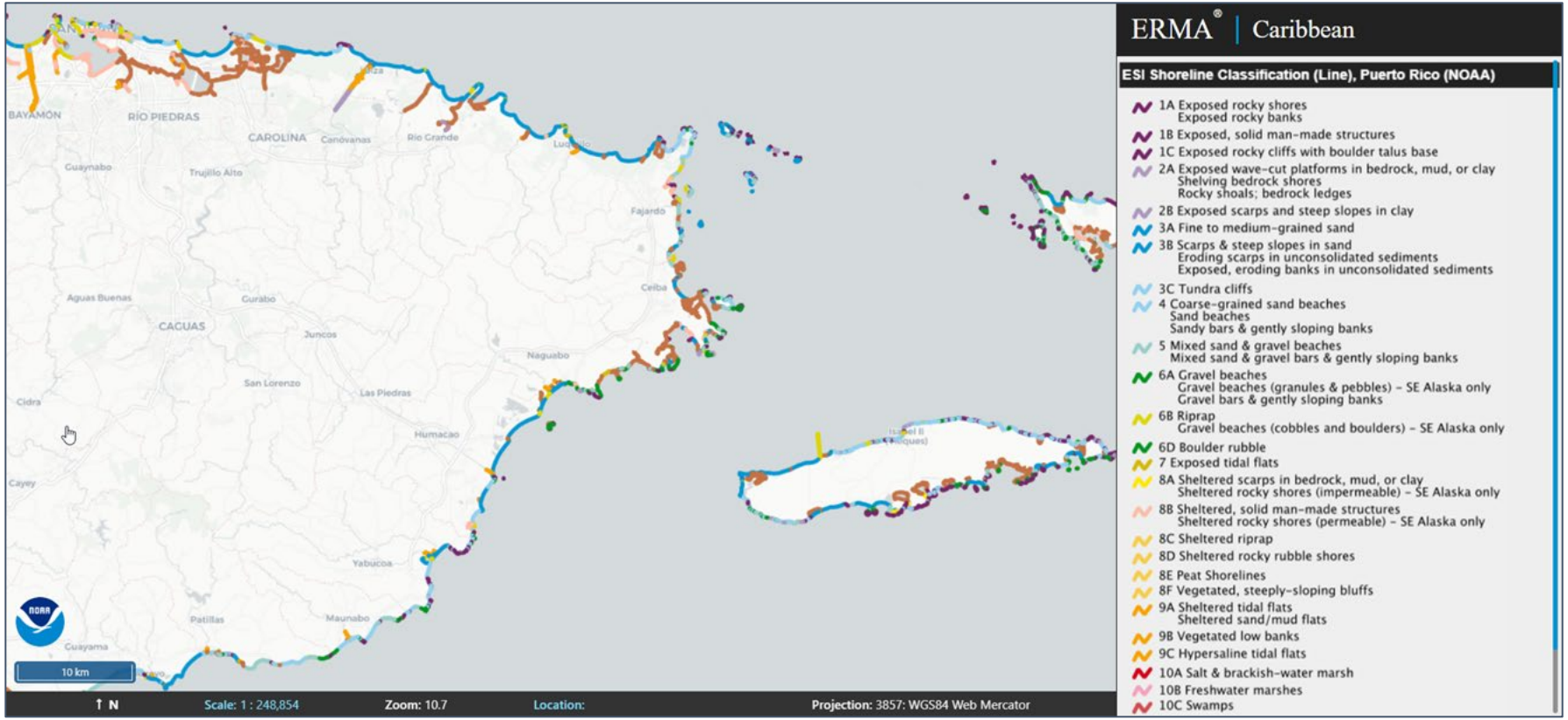
https://response.restoration.noaa.gov/resources/environmental-sensitivity-index-esi-maps

ERMA provides:

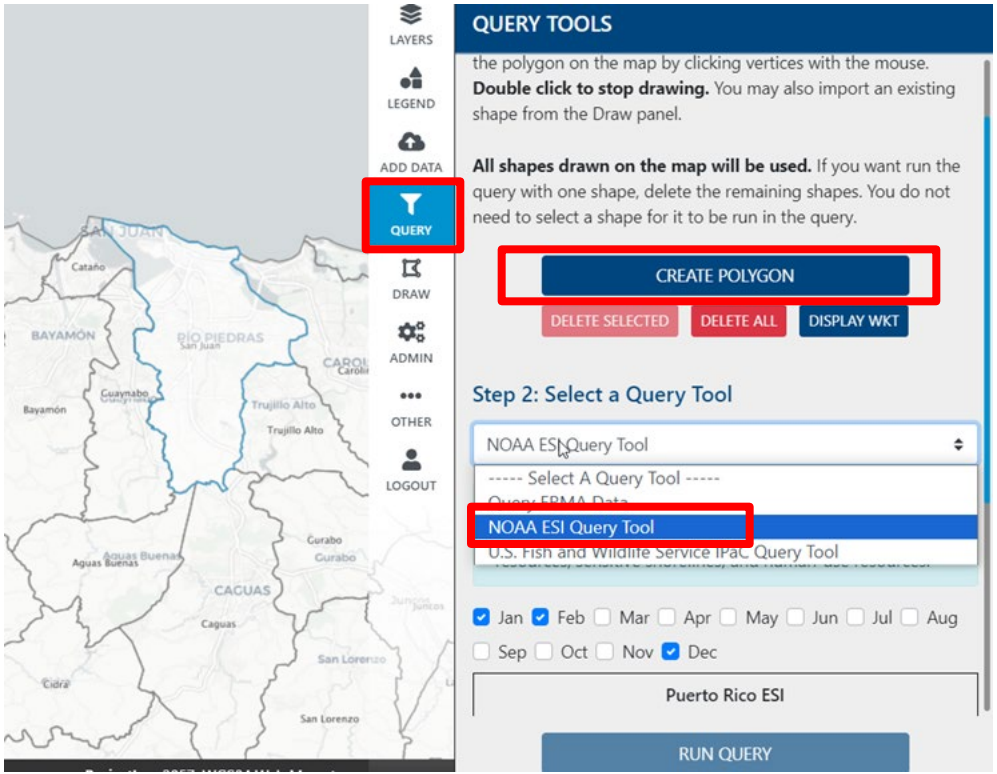
- Links to all pdf maps
- Map display within ERMA
- ESI custom AOI report



Environmental Sensitivity Index (ESI)



Querying ESIs

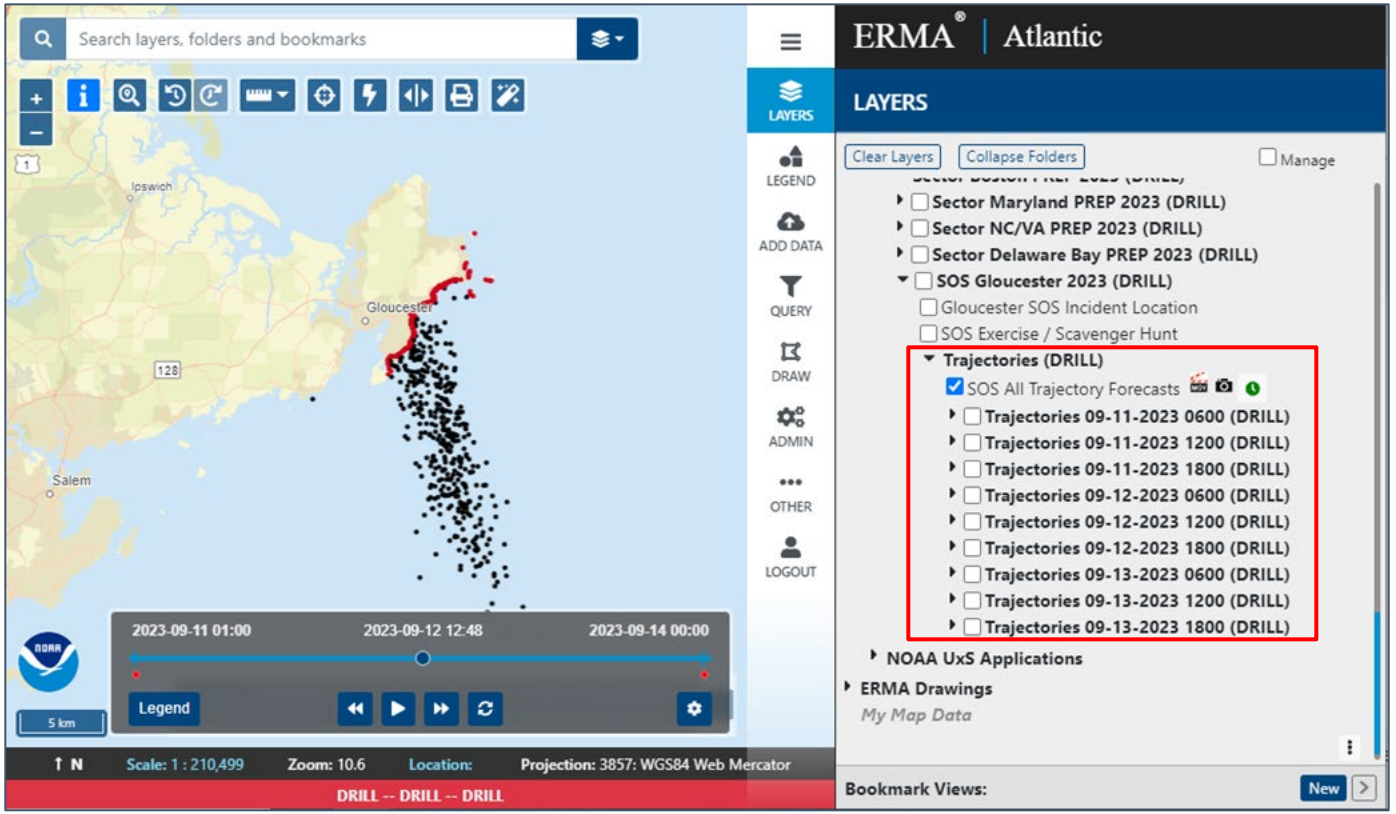


A detailed report of the ESI data can be created using ERMA's Query Tools

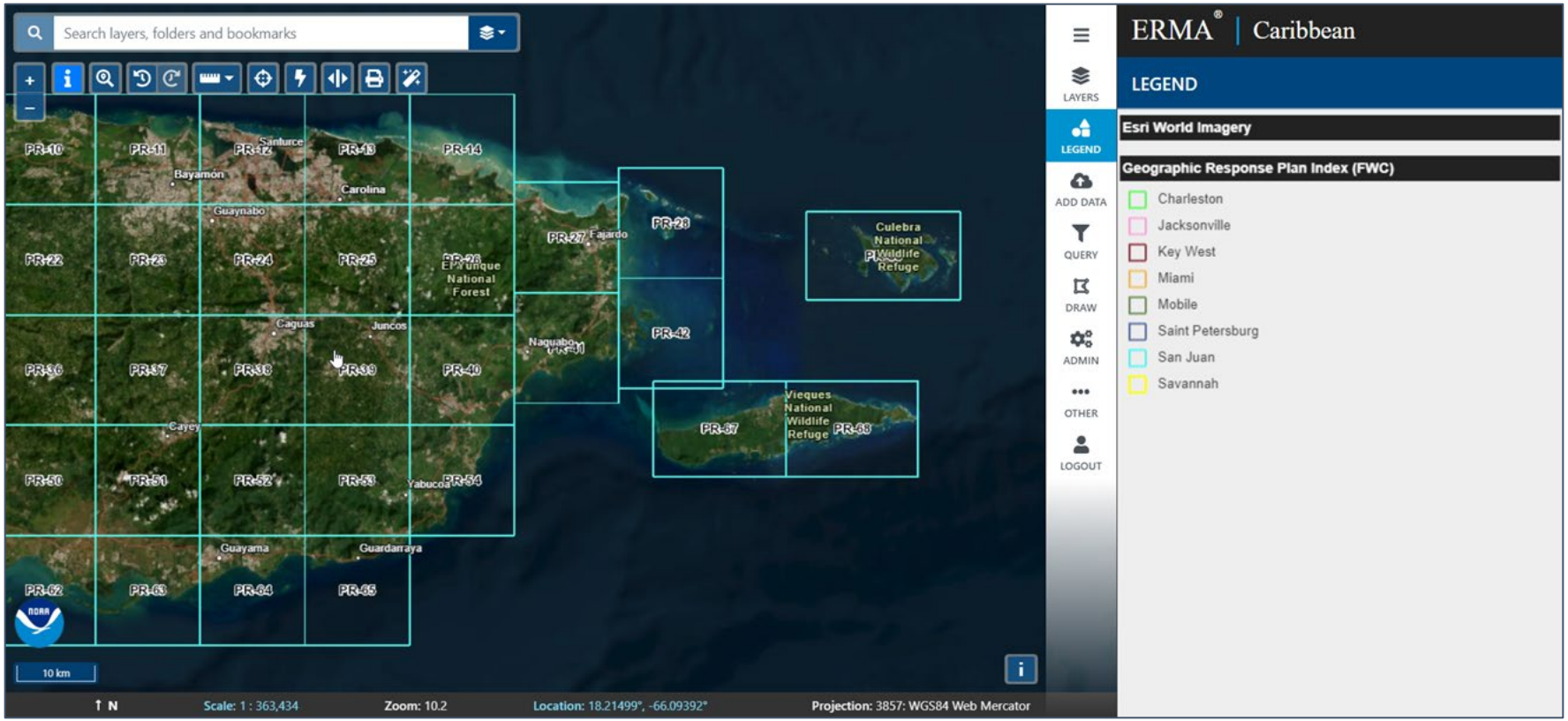
- Click Query
- Click 'create polygon' and draw your AOI
- Choose "NOAA ESI Query Tool"
- Click "Run Query"

response.restoration.noaa.gov

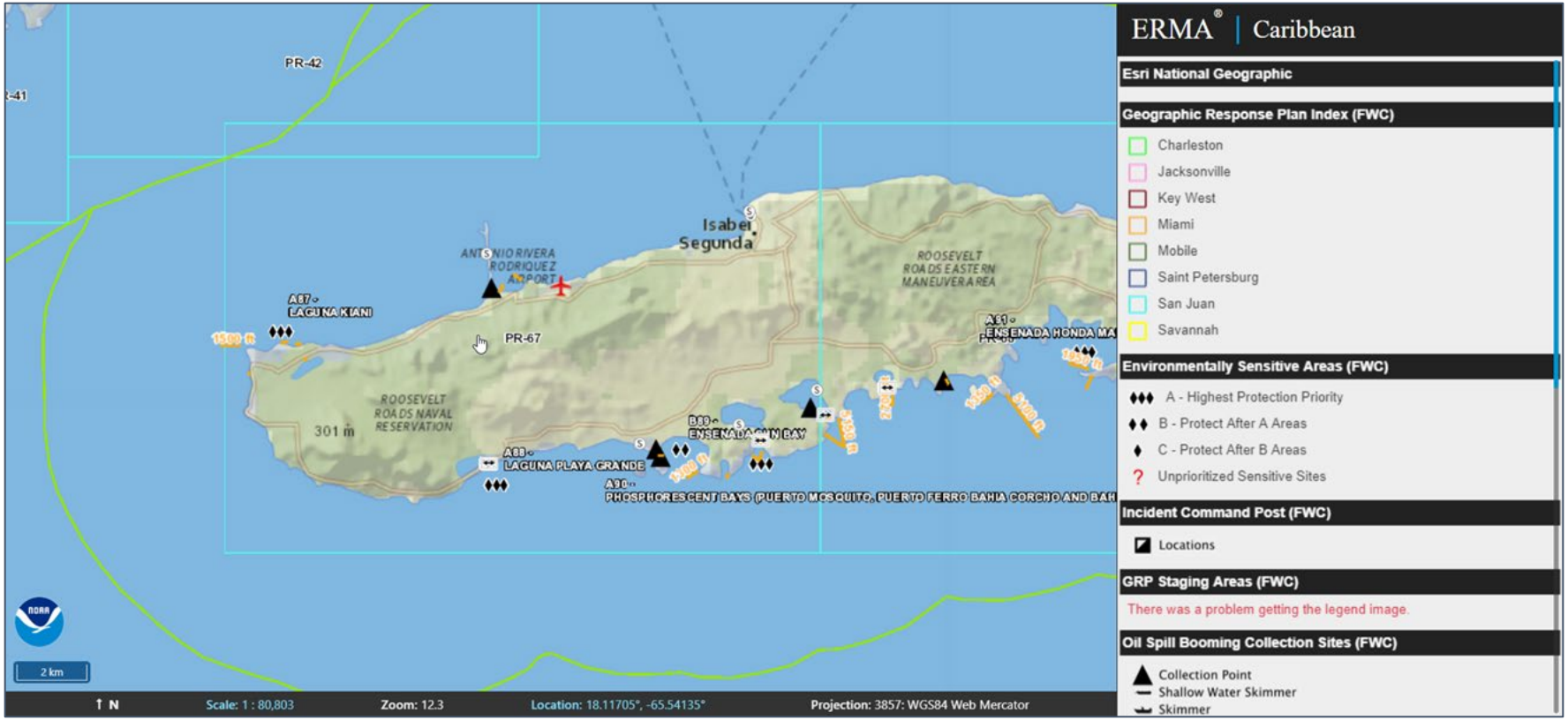
Trajectories



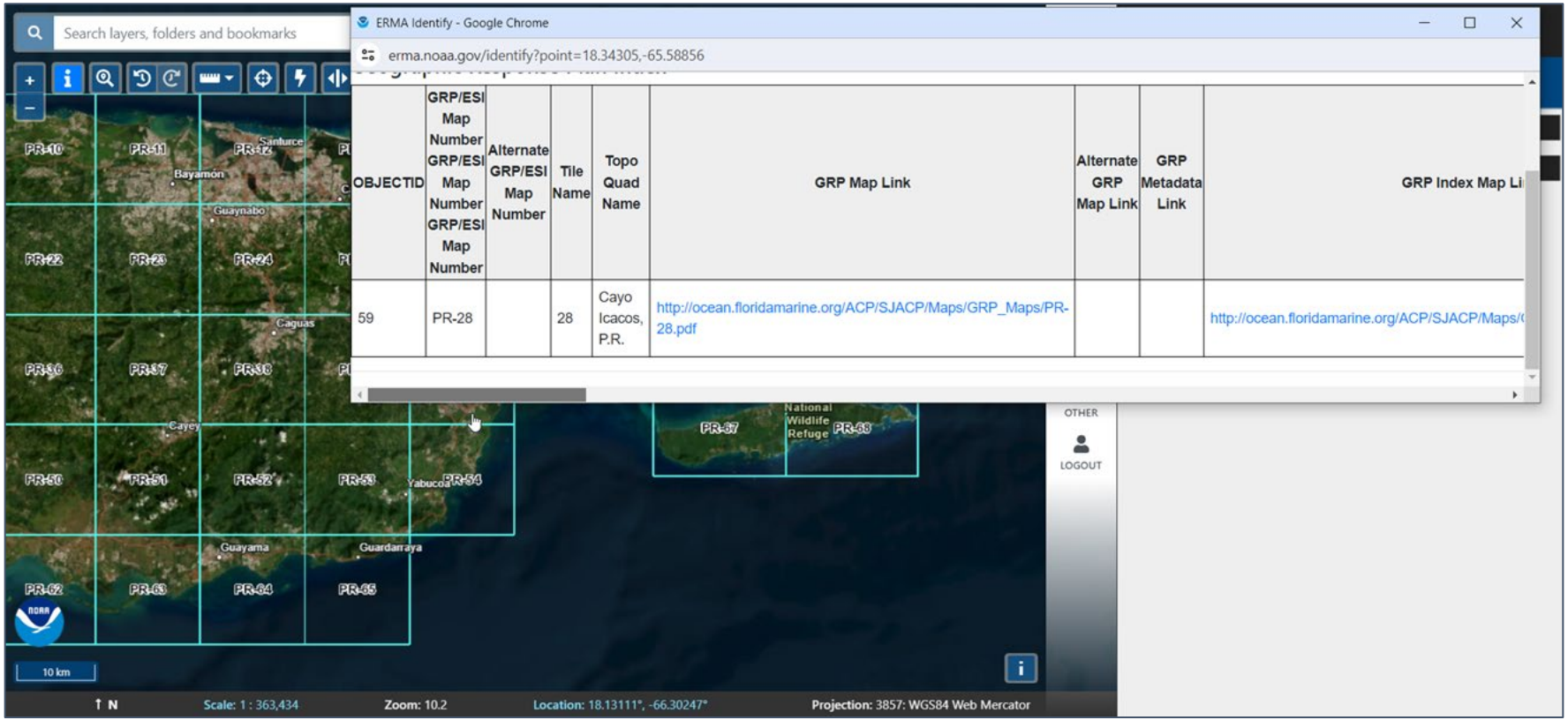
Geographic Response Plan



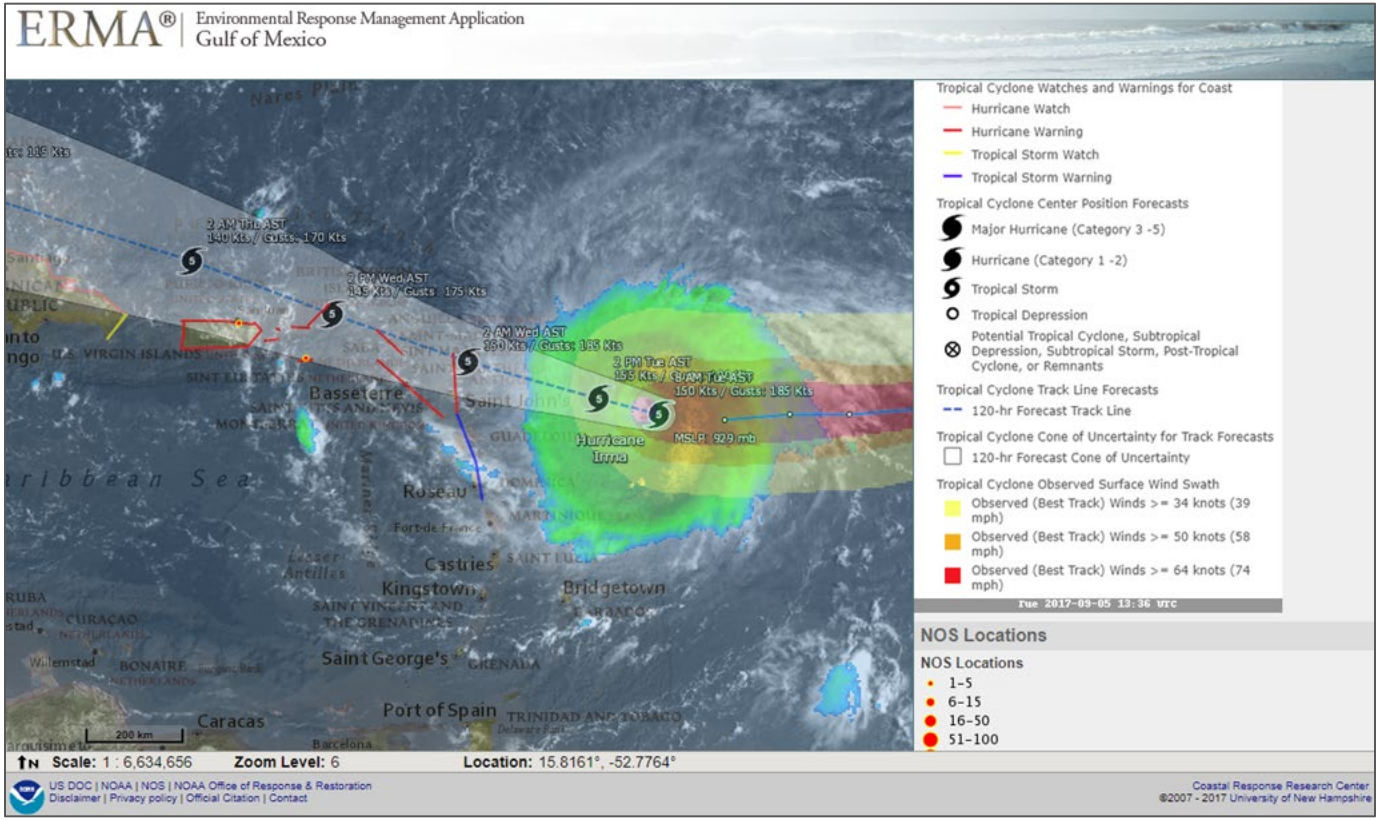
Geographic Response Plan



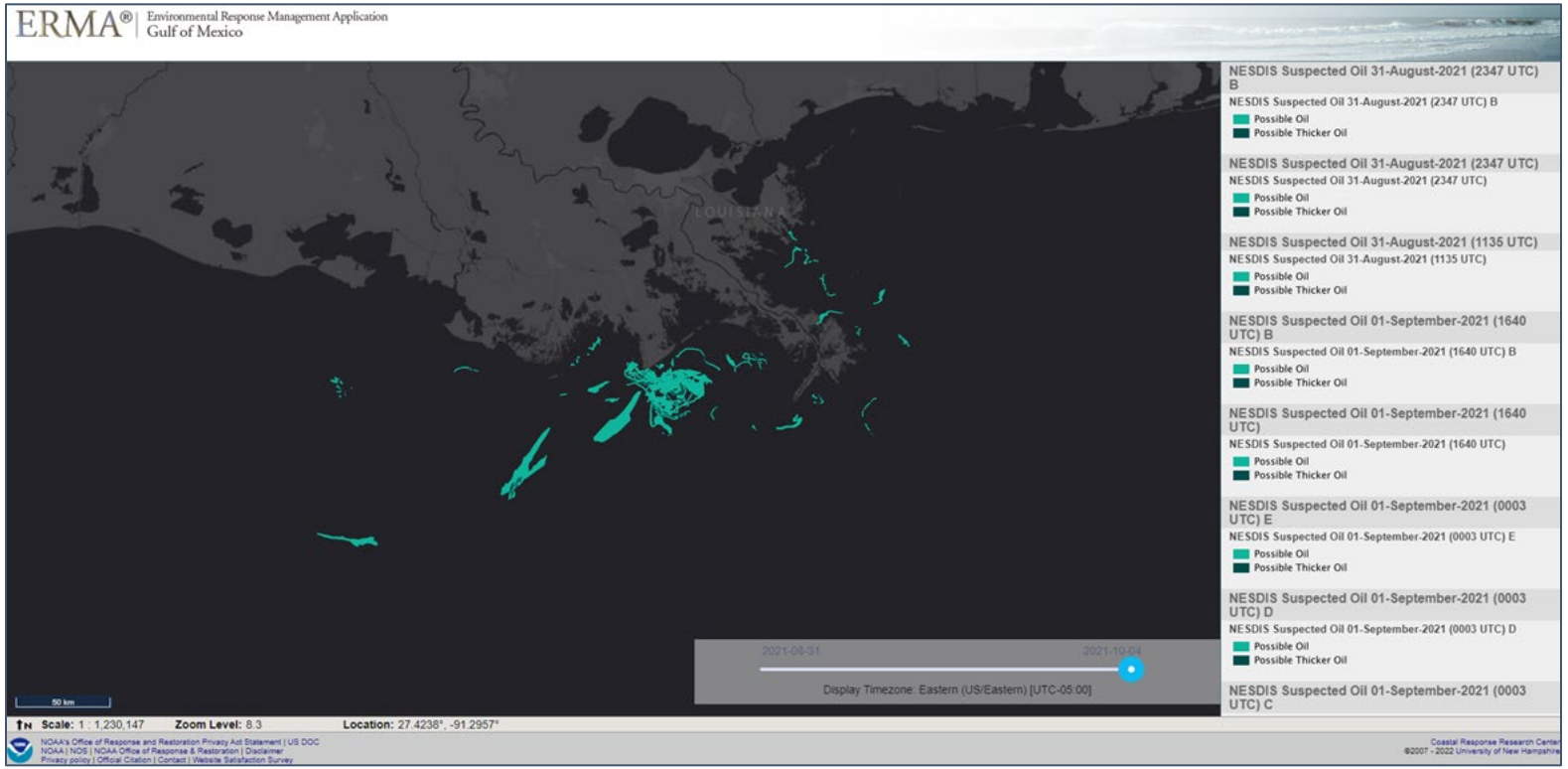
Geographic Response Plan



Storm Tracking

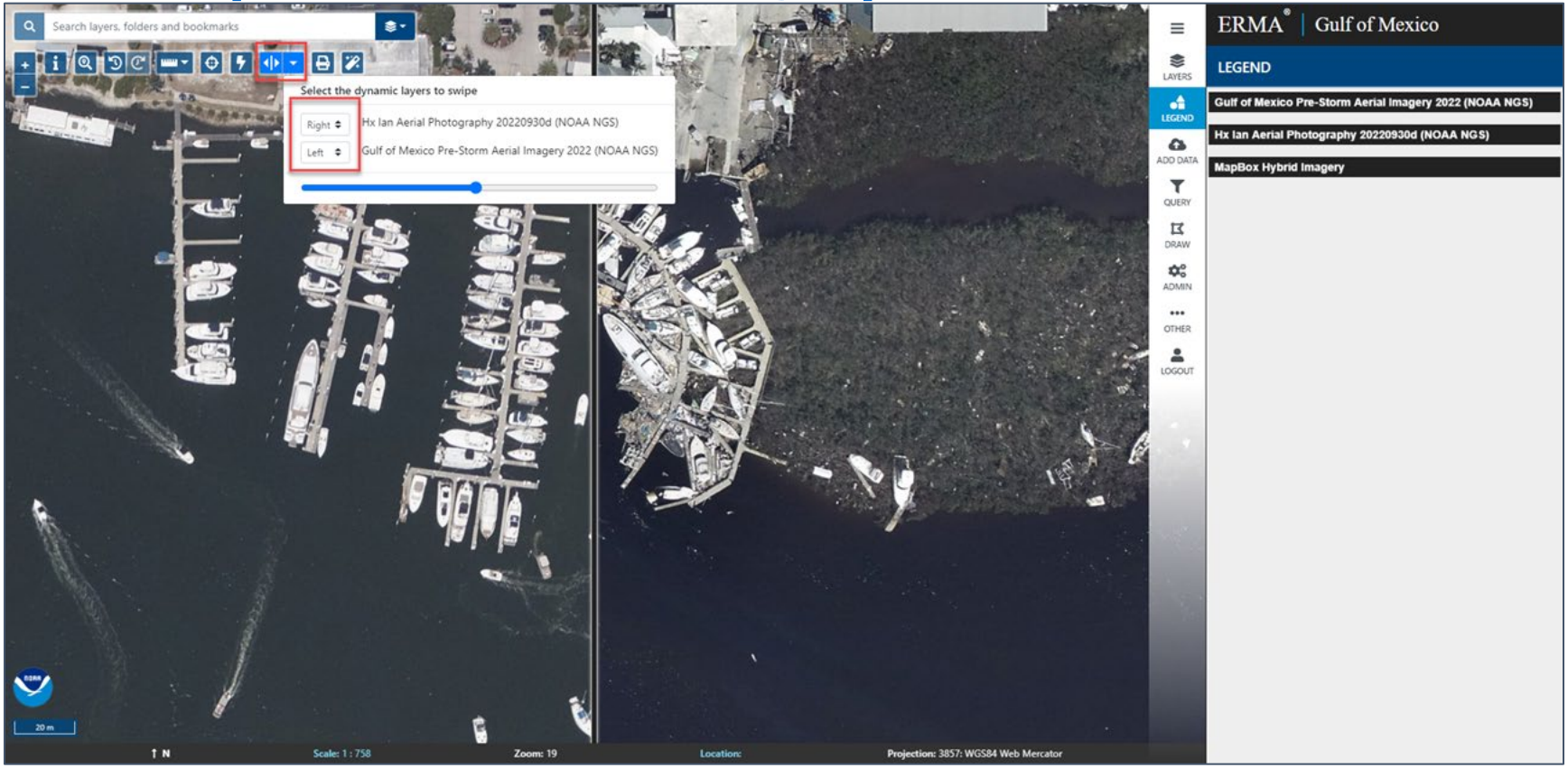


Marine Pollution Surveillance Reports (MPSR)

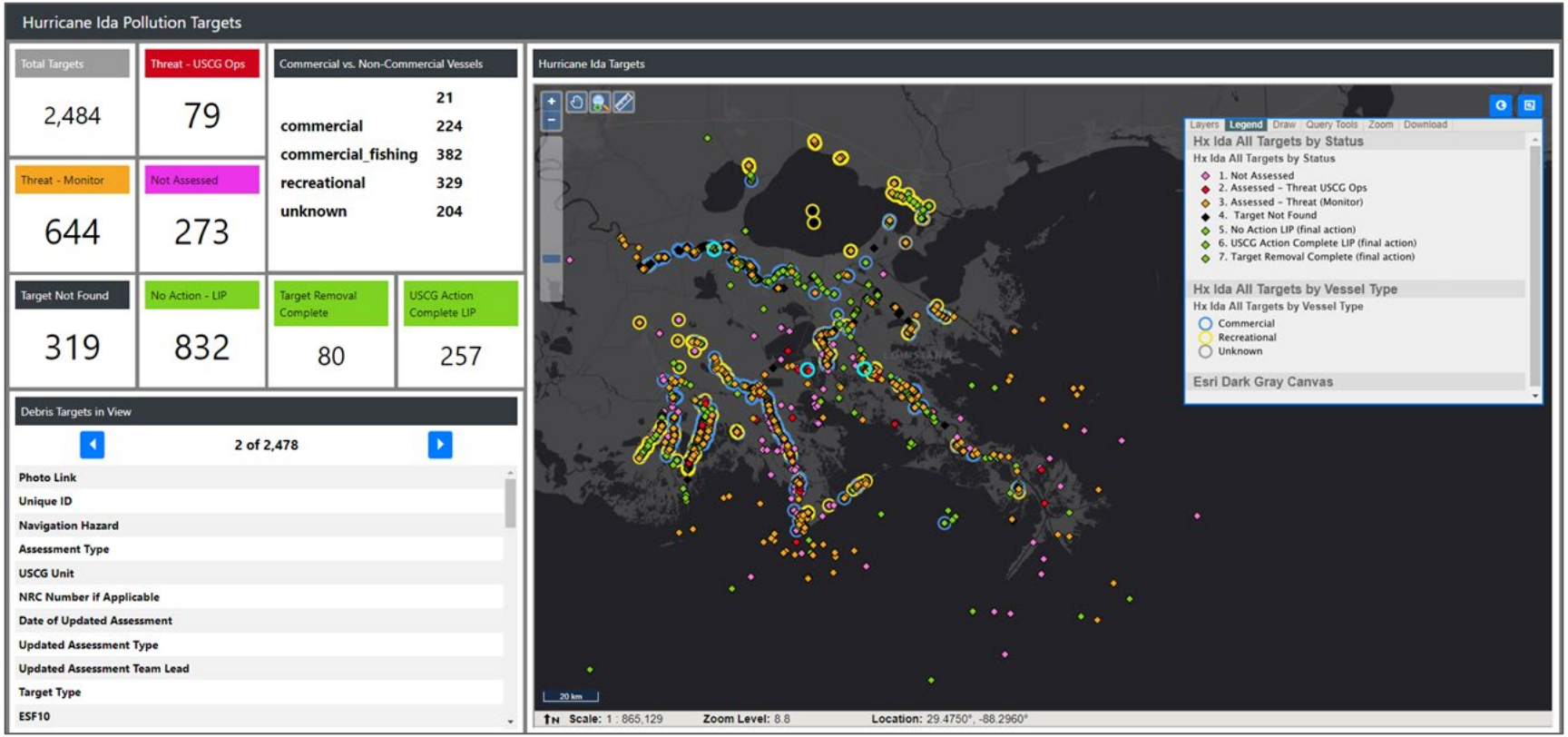


https://www.ospo.noaa.gov/Products/ocean/marinepollution/

NGS Response Aerial Photography



Pollution Target Dashboard



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Questions?