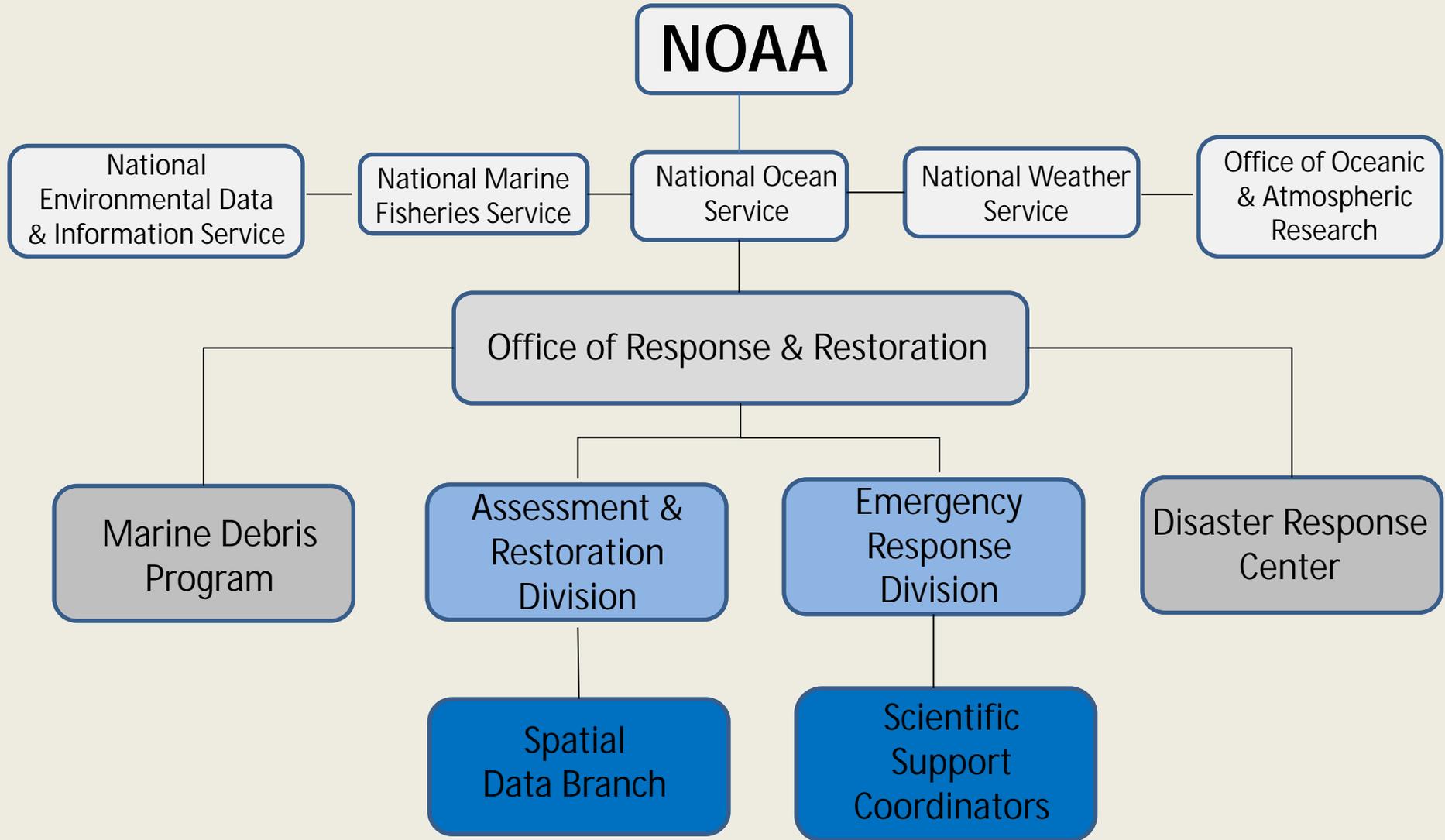


Overview

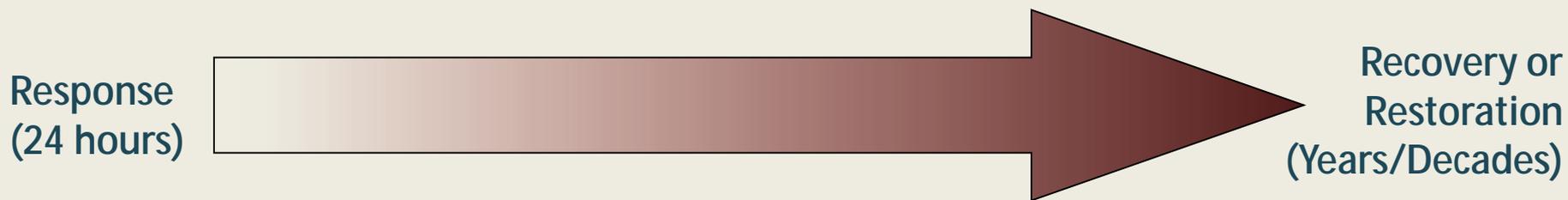
- Quick OR&R/ERMA Overview
- Data in ERMA
 - Data Highlights
 - GRPs
- Interoperability and Data Sharing
- ERMA Tools
- Questions (anytime!)

ERMA Background

- erma.noaa.gov
- erma.noaa.gov/Atlantic
- erma.noaa.gov/Arctic
- erma.noaa.gov/GreatLakes
- erma.noaa.gov/caribbean



Continuum of "Response" Framework for The Office of Response & Restoration

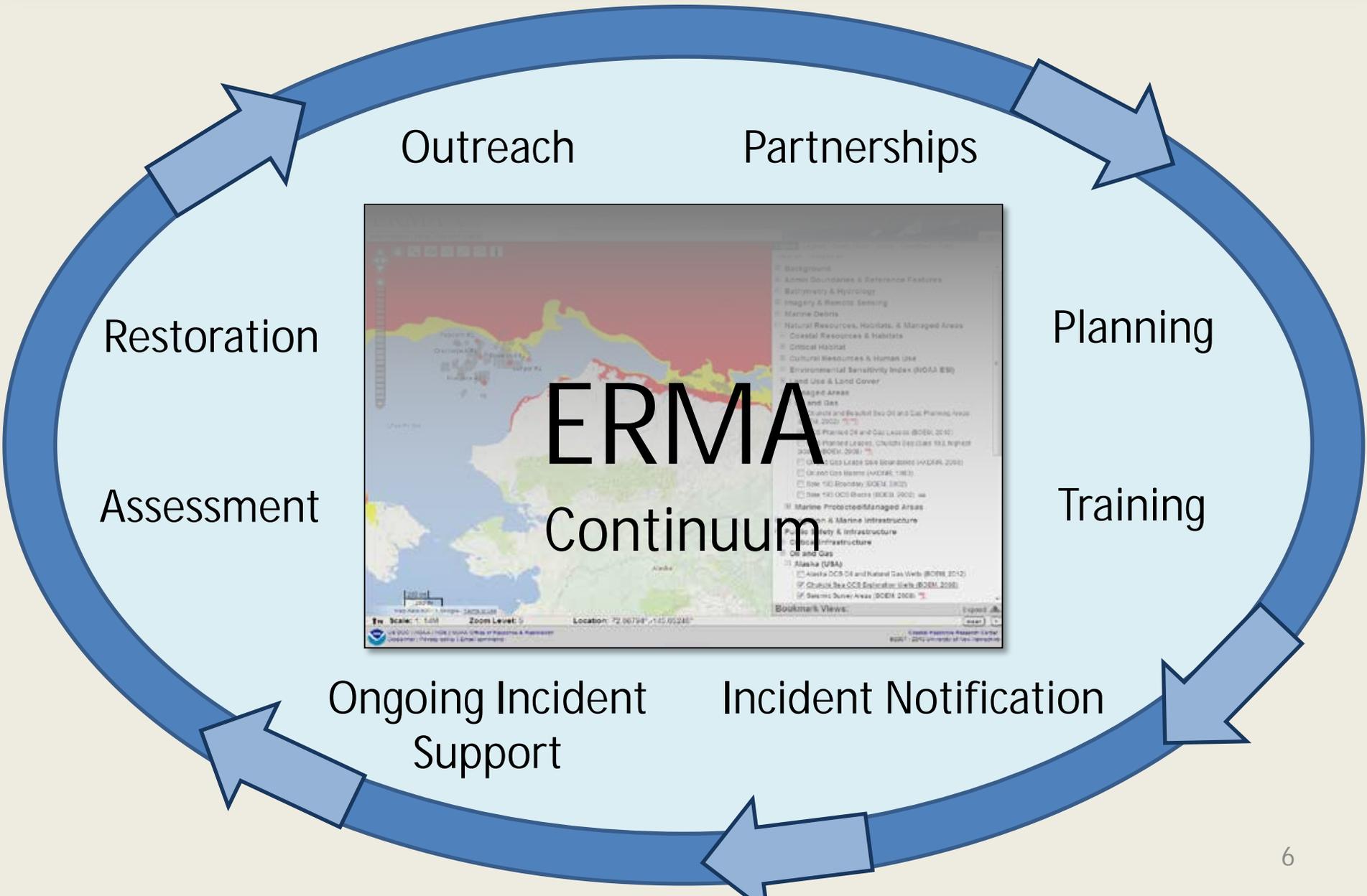


Response

Assessment

Restoration





What is ERMA?

- Customizable web based mapping application that provides centralized access and visualization of integrated data.
 - Creating and building upon relationships, partners, and data standards
 - Tiered system security that protects data.
 - Progressive disclosure
 - Scalability
 - Distributed contributions
 - Standardized user interface
 - Access via any modern web browser.

ERMA as a Federal COP

- ERMA provides secure 24/7 access
- Planning support & tools
- Operational **AND** Environmental data
- Data Interoperability with RP and other agencies
- Maintains data after the Incident ends
- **Internal** and **external** audience
- *Federal COP supports the Public right to know and government transparency*

ERMA is used to...

Visualize the situation status during an oil spill drill/training



Assess damage and plan for restoration



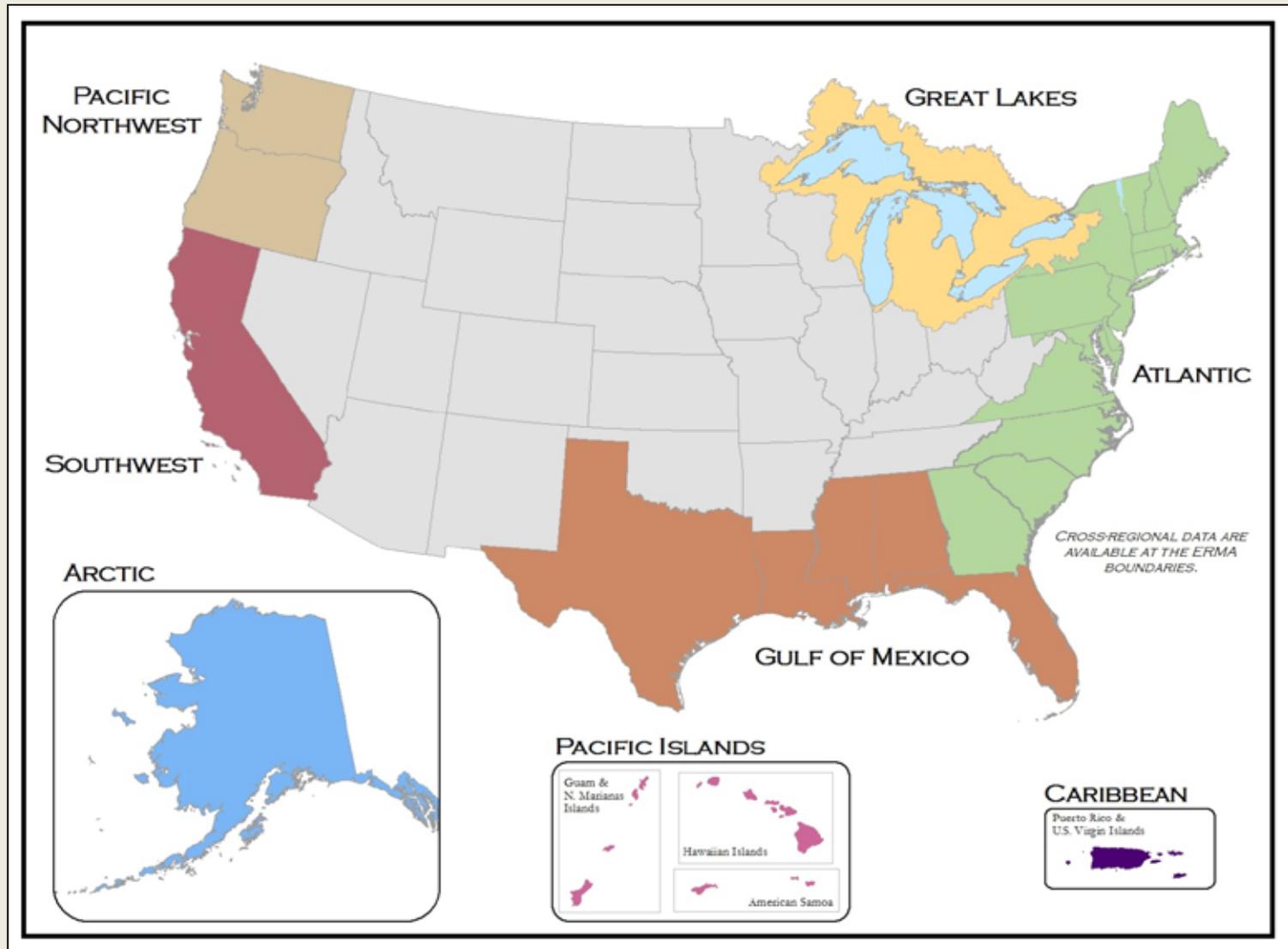
Create a Common Operational Picture in a disaster response



Analyze threats from climate change, drilling, and hurricanes



Where is ERMA?



How is ERMA Data Updated?

- GIS Data (shapefiles, real-time map services)
 - NOAA Spatial Data Branch Regional Data Managers
 - Trained Regional Partners
 - § State (California OSPR)
 - § Universities (University of Washington)
 - § U.S Coast Guard Academy
- Map Drawings
 - Trained Advanced Users
 - § USCG Sector Guam
 - § USCG District 9/Great Lakes



NOAA IM & ERMA Incident Support

Requested through the NOAA SSC or RRC

- Small Case: Remote Support
- Large Event: On-Scene Support à PRFA
 - Immediate Field Data QA/QC & Daylight Data Gaps
 - Ensures Highest Quality Data for Unified Command
 - Situational Awareness to Off-Site Leadership & Partners
 - Ensures Federal Retention of Response Data

ERMA Security

NOAA security assessment and guidelines

- Federal, secured Amazon Cloud environment
 - Full server redundancy
 - Cloud on 24/7
 - Ability to expand as needed
- Data sharing security
 - Account privileges
 - Event Specific
 - Restrict download
 - Token access for map services



ERMA Account Access

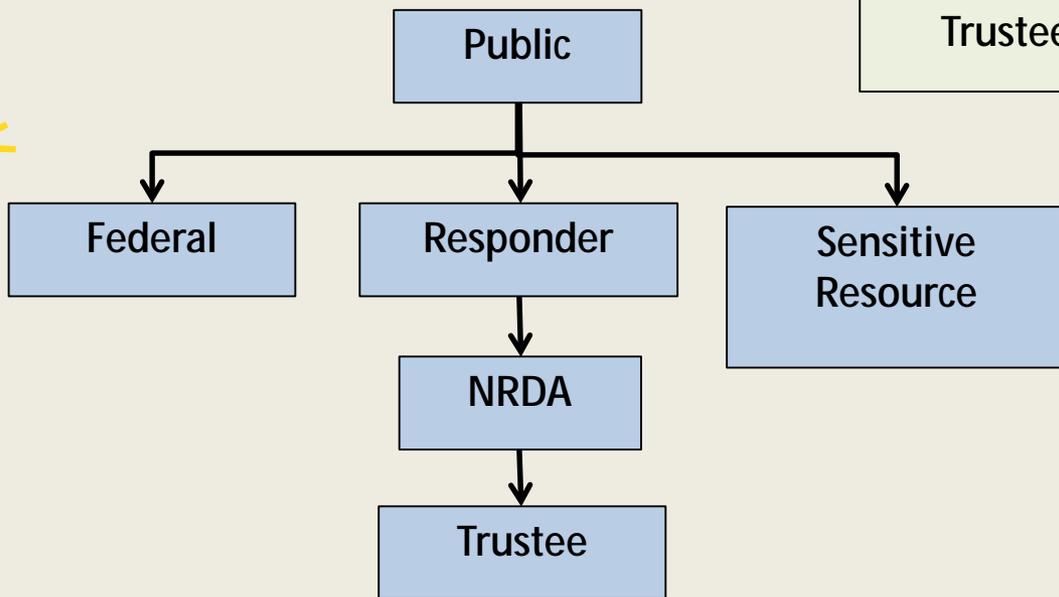
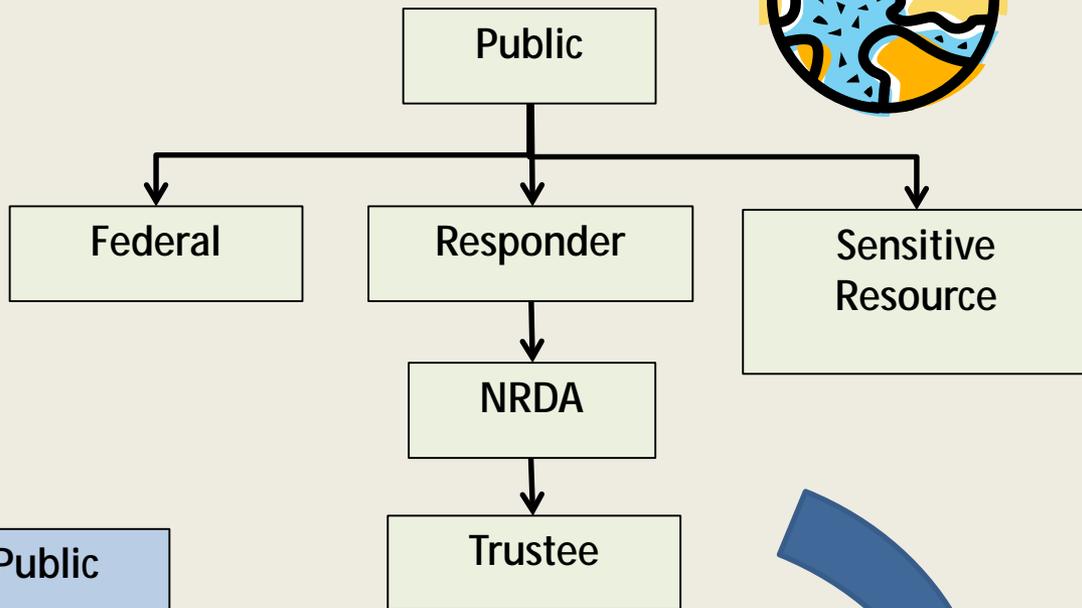
- Public accounts
 - Publically available data (no login required)
- Restricted accounts for planning & response
 - Username/password required
 - Verified by NOAA
 - Various levels of access
 - Active incidents
 - Sensitive datasets
 - NRDA/Trustees
 - Drills
 - Password reset 90 days; Inactive accounts 6 months
- Data available only to appropriate users and use



ERMA Layer Security



- User and Layer security will limit what any given user will see in ERMA
- Only users with the appropriate security level can see “protected” data



Request an ERMA Account

First Name required
Middle Name
Last Name required
Phone required
Email Address required Work email address required (not personal)
Affiliation required
Agency Represented required Major government agency or company represented.

contractor information

Contractor Yes No required

Company (if yes above)

NOAA OR&R Sponsor* required

Incident Command Post (if applicable)

Office Location (City, State) required

Notes

cancel

submit

ERMA® Environmental Atlantic

Information Help Recent Data

Scale: 1 : 5M

US DOC | NOAA | NOS | NOAA Office of R
Disclaimer | Privacy policy | Official Citation

Zoom Download Print **Login**

Reference Features
y
& Monitoring
sing
itats, & Managed Areas
rastructure
ucture
y, & Natural Hazards

Expand
clean

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* NOAA Office of Response & Restoration representative that suggested access to the site.

ERMA Layout and Data

ERMA Layout

The screenshot displays the ERMA web application interface. At the top left, the 'ERMA' logo is followed by 'Info/Admin Tabs' and 'Search' buttons. A search bar is located below these. On the top right, there are 'Login/out' and 'Change Password' buttons. The main map area shows a geographical view of the Northeastern United States and parts of Canada, with various cities and state boundaries labeled. A 'Map Toolbar' is on the left side of the map, and a 'Map Key' is at the bottom left. On the right side, there is a 'Layers' panel with a 'Table of Contents' and a 'Bookmark Panel'. A 'Shortcut Menu' is also visible, listing various map layers and their metadata. At the bottom, there are 'Display Controls' and 'Bookmark Views' sections. The footer contains the NOAA logo and contact information.

ERMA | Info/Admin Tabs | Search | Login/out

Information | Help | Recent Data | Admin | Upload | Incident | Search Layers, Folders, and Bookmarks | Geographic Search | Change Password | Logout

Layers | Legend | Draw | Query Tools | Zoom | Download | Print | clear all | collapse all | manage

Map Toolbar

Map Controls

Table of Contents

- Background Layers
- Admin Boundaries & Refer...
- Bathymetry & Hydrology
- Environmental Quality & Monitoring
- Marine Debris
- Imagery & Remote Sensing
- Natural Resources, Habitats, & Managed Areas
 - Coastal Resources & Habitats
 - Critical Habitat
 - Cultural Resources & Human Use
 - Essential Fish Habitat (NOAA EFH)
 - Environmental Vulnerability Index (Maine DEP)
 - Environmental Sensitivity Index (NOAA ESI)
 - ESI PDF Maps for New York - 2006 (NOAA)
 - Seamless ESI PDF Maps for New York - 2009 (NOAA)
 - Seamless ESI PDF Maps for New York - 2014 (NOAA)
 - Seamless ESI PDF Maps for New York - 2007 (NOAA)
 - Seamless ESI PDF Maps for New York - 2005 (NOAA)
 - Seamless ESI PDF Maps for South Florida - 2007 (NOAA)
 - ESI PDF Overlay, NC
 - ESI PDF Overlay, SC
 - ESI PDF Overlay, GA
- Connecticut, Rhode Island, New York, New Jersey (NOAA ESI 2001)
- Delaware Bay (NOAA ESI 2014)
- Delaware, New Jersey, & Pennsylvania (LEGACY - NOAA ESI 1996)

Shortcut Menu

- view metadata
- zoom to extent
- bring to front
- send to back
- view data

Bookmark Panel

Bookmark Views: new | Expand | clean | >

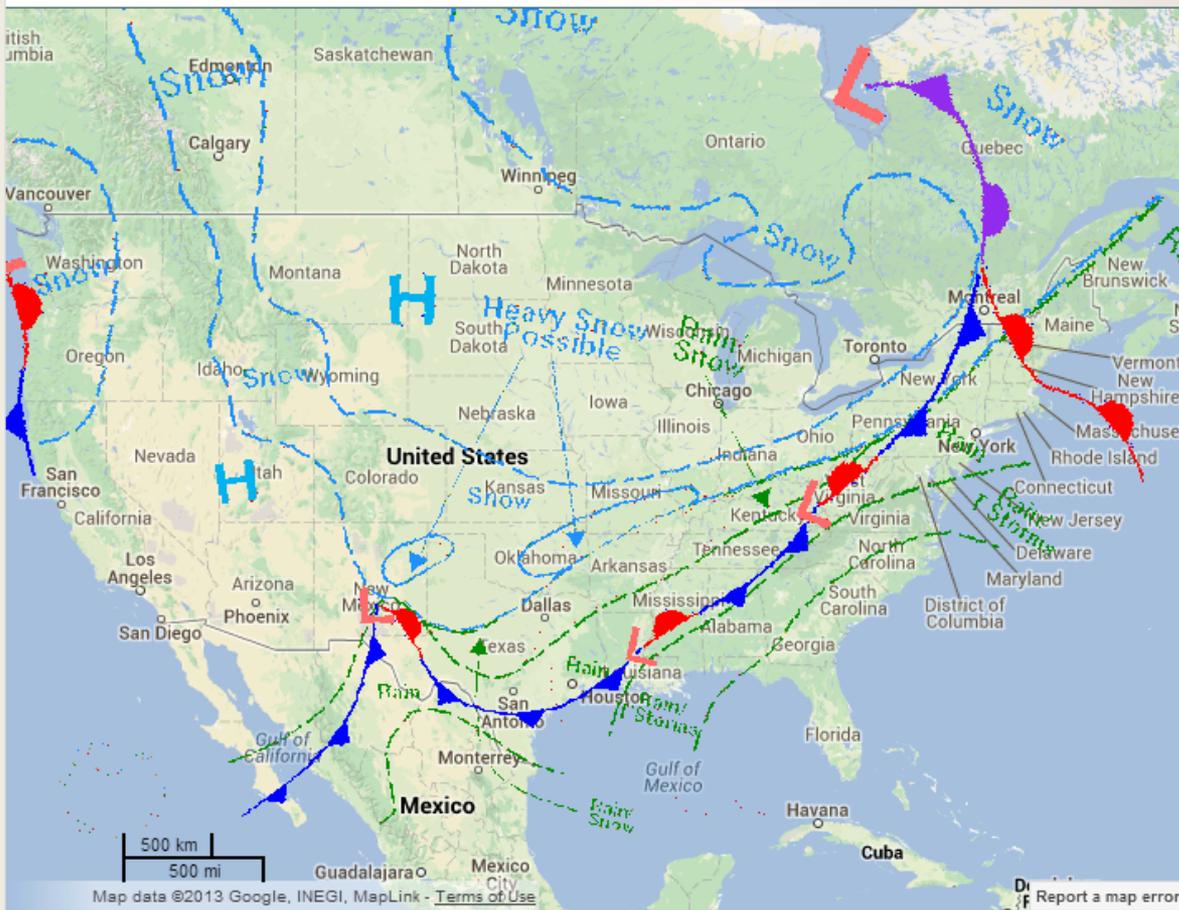
Scale: 1:5M | Zoom Level: 6 | Location: 45.44249°, -83.63681°

US DOC | NOAA | NOS | NOAA Office of Response & Restoration | Disclaimer | Privacy policy | Official Citation | Email comments

Research Center of New Hampshire

Current Weather Conditions

ERMA | Environmental Response Management Application
Atlantic



Weather, Oceanography, & Natural Hazards

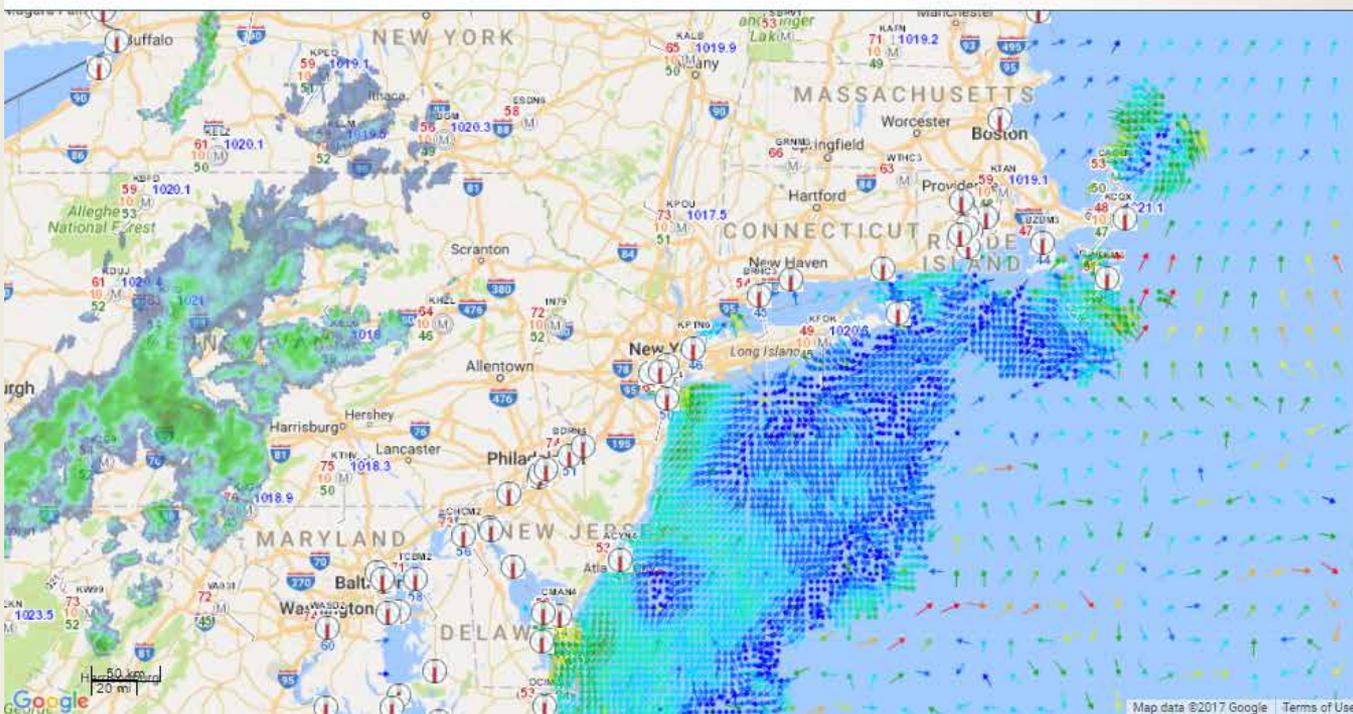
NWS National Weather Forecast Chart

	Cold Front - a zone separating two air masses, of which the cooler, denser mass is advancing and replacing the warmer.
	Warm Front - a transition zone between a mass of warm air and the cold air it is replacing.
	Stationary Front - a front between warm and cold air masses that is moving very slowly or not at all.
	Occluded Front - a composite of two fronts, formed as a cold front overtakes a warm or quasi-stationary front. Two types of occlusions can form depending on the relative coolness of the air behind the cold front to the air ahead of the warm or stationary front. A cold occlusion results when the coldest air is behind the cold front and a warm occlusion results when the coldest air is ahead of the warm front.
	Trough - an elongated area of relatively low atmospheric pressure, the opposite of a ridge. On HPC's surface analyses, this feature is also used to depict outflow boundaries.
	Squall Line - a line of active thunderstorms, either continuous or with breaks, including contiguous precipitation areas resulting from the existence of the thunderstorms.
	Dry Line - a boundary separating moist and dry air masses. It typically lies north-south across the central and southern high Plains states during the spring and early summer, where it separates moist air from the Gulf of Mexico (to the east) and dry desert air from the southwestern states (to the west).

Scale: 1: 28M Zoom Level: 4 Location: 30.62020°, -85.83852°

Current Near Real Time Weather

ERMA® Environmental Response Management Application
Atlantic



Near Real-Time Weather Observations (NOAA)

Station Model



Wed 2017-04-12 01:48 UTC

Currents

East Coast Currents (HYCOM 3D Region 1) (IOOS)



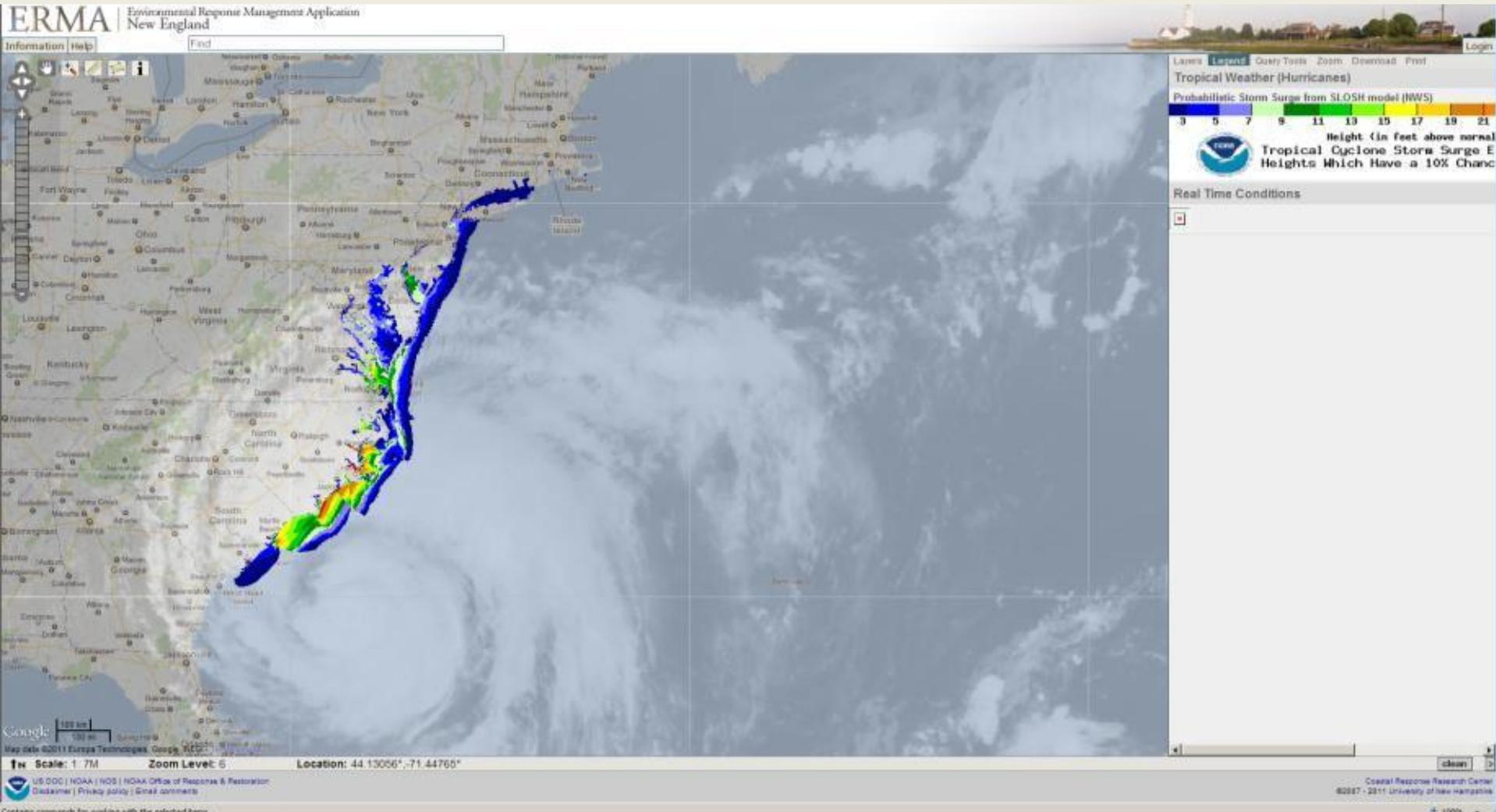
HF Radar

East Coast HF Radar (USEGC) (IOOS)



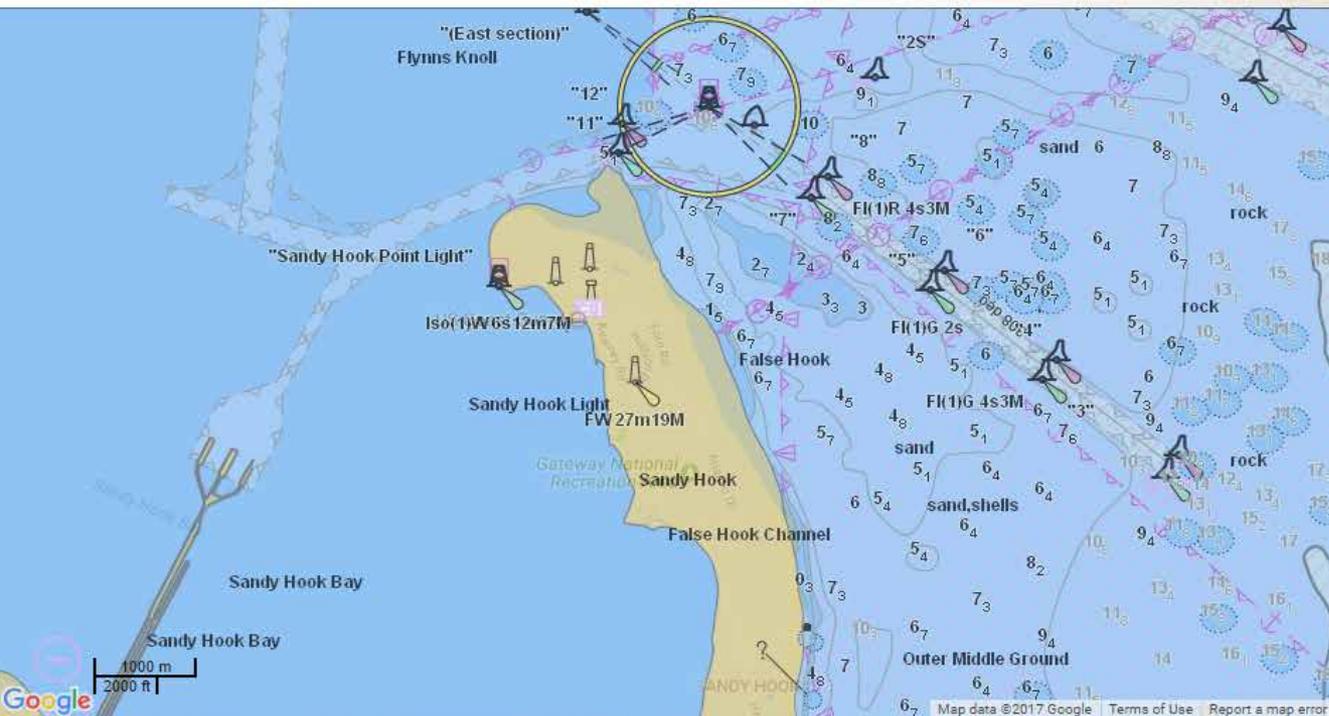
Scale: 1 : 3M Zoom Level: 7 Location: 38.3865°,-71.3644°

Model Output & Satellite Tracking



Navigational Charts (ENCs)

ERMA® | Environmental Response Management Application
Atlantic

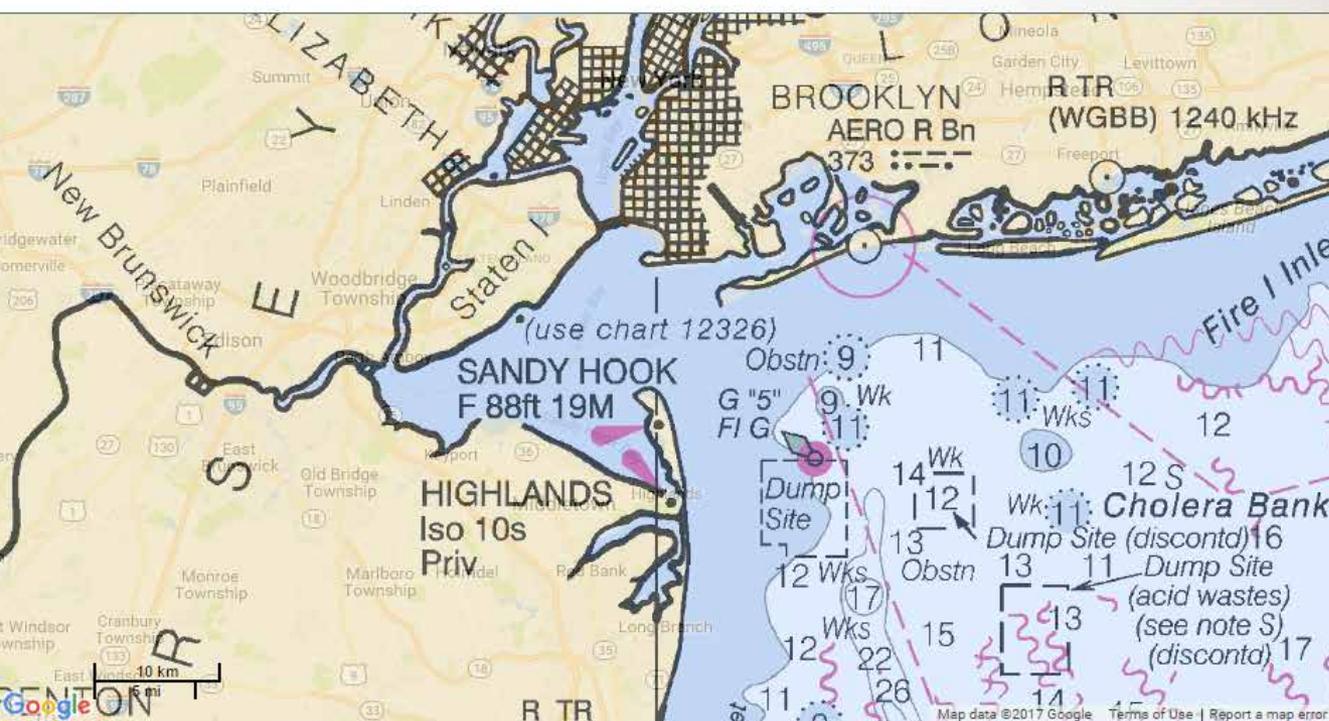


NOAA Navigation Charts
Electronic Navigational Charts (ENC) (NOAA)

Scale: 1 : 41K Zoom Level: 13 Location: 40.48081°, -73.91769°

Navigational Charts (RNCs)

ERMA® | Environmental Response Management Application
Atlantic



NOAA Navigation Charts

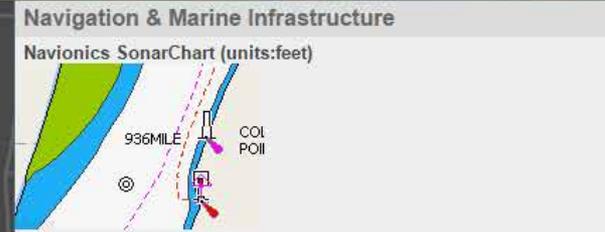
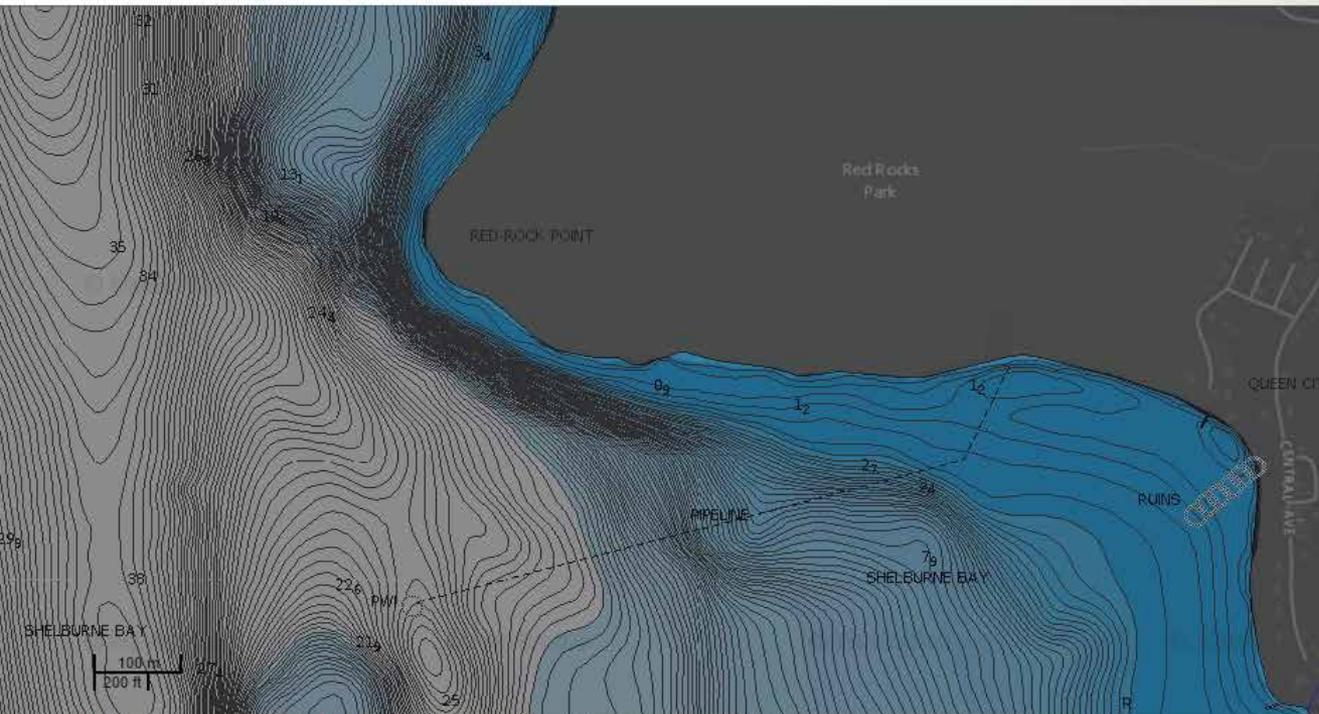
Raster Navigational Charts (RNC) (NOAA)



Scale: 1 : 330K Zoom Level: 10 Location: 40.61060°, -73.34417°

Other Navigational Charts (Navionics)

ERMA® | Environmental Response Management Application
Atlantic

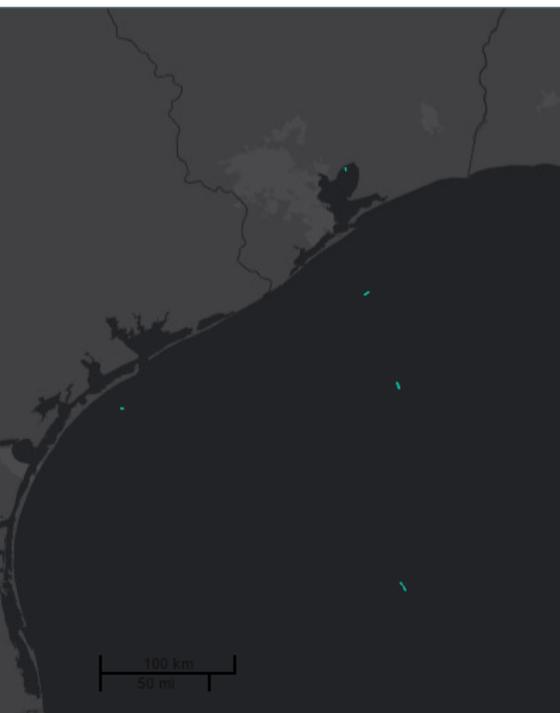


↑N Scale: 1 : 4842 Zoom Level: 16 Location: 44.43942°,-73.21980°

Satell

toring

ERMA® Environmental Response Management
Gulf of Mexico



☐ **NESDIS Marine Pollution Surveillance Reports**

- ☑ April 2017
- ☑ March 2017
- ☑ February 2017
- ☑ January 2017
- ☑ December 2016
- ☑ November 2016
- ☑ October 2016
- ☑ September 2016
- ☑ August 2016
- ☑ July 2016
- ☑ June 2016
- ☑ May 2016
- ☑ April 2016
- ☑ March 2016
- ☑ February 2016
- ☑ January 2016
- ☑ December 2015
- ☑ November 2015
- ☑ October 2015
- ☑ September 2015
- ☑ August 2015
- ☑ July 2015
- ☑ June 2015
- ☑ May 2015
- ☑ April 2015
- ☑ March 2015
- ☑ January 2015
- ☑ 2014
- ☑ 2013



April 2017

☑ SDIS Suspected Oil 10-April-2017 (0742 CDT)

- ☑ Possible Oil
- ☑ Possible Thicker Oil

☑ SDIS Suspected Oil 09-April-2017 (1134 CDT)

- ☑ Possible Oil
- ☑ Possible Thicker Oil

☑ SDIS Suspected Oil 08-April-2017 (1138 CDT)

- ☑ Possible Oil
- ☑ Possible Thicker Oil

☑ SDIS Suspected Oil 08-April-2017 (1138 CDT) B

- ☑ Possible Oil
- ☑ Possible Thicker Oil

☑ SDIS Suspected Oil 08-April-2017 (1138 CDT) C

- ☑ Possible Oil
- ☑ Possible Thicker Oil

☑ SDIS Suspected Oil 08-April-2017 (1138 CDT) D

- ☑ Possible Oil
- ☑ Possible Thicker Oil

☑ SDIS Suspected Oil 04-April-2017 (1901 CDT)

- ☑ Possible Oil
- ☑ Possible Thicker Oil

February 2017

↑N Scale: 1 : 3M Zoom Level: 7

MARINE POLLUTION SURVEILLANCE REPORT



Analysis Provided by: The National Oceanic and Atmospheric Administration/National Environmental Satellite, Data and Information Service (NOAA/NESDIS)

REPORT DATE: APRIL 10, 2017
 REPORT TIME: 1345Z (0945 EDT)
 ANALYST: BOLL

DATA SOURCE: RADARSAT-2
 MODE: ScanSAR Wide VV
 RESOLUTION: 100 meter (wide)
 IMAGE DATE/TIME: 4/10/2017 1053Z (0653 EDT)

Legend

- Possible Oil
- Possible Thicker Oil
- Coimbra Tanker Shipwreck: [40°24'4" N / 72°22'14" W]
- False-Positive (not oil)
- 2.7 km² Area of Possible Oil

CONFIDENCE: High

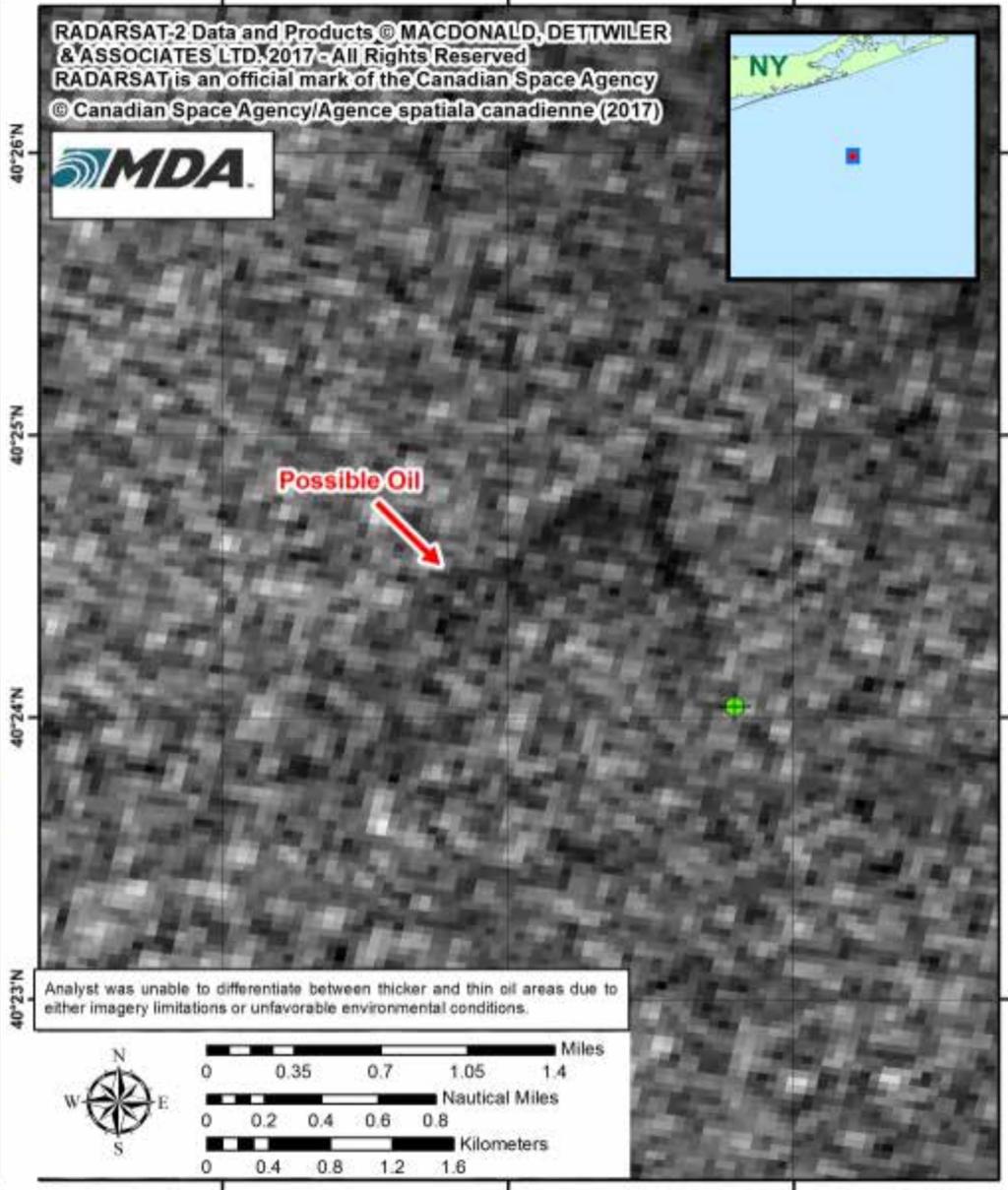
REMARKS:

Satellite analysis indicated a possible oil anomaly emanating from the known repeat leak source the sunken Coimbra Tanker off the coast of Long Island, NY. The anomaly was 1.7 NM in length and 0.5 NM in width.

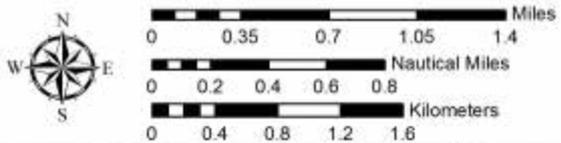
Measured winds in the area were 10 knots and from the South. Modeled ocean currents were under 0.75 knots with variable directionality.

Confidence was High given the anomaly was connected to a point source, displayed a contrast to its surroundings, and appeared out of place.

RADARSAT-2 Data and Products © MACDONALD, DETTWILER & ASSOCIATES LTD. 2017. All Rights Reserved
 RADARSAT is an official mark of the Canadian Space Agency
 © Canadian Space Agency/Agence spatiale canadienne (2017)



Analyst was unable to differentiate between thicker and thin oil areas due to either imagery limitations or unfavorable environmental conditions.



ERM



Threats

Scale: 1



Research Center of New Hampshire

Satellite Tracking & Monitoring

ERMA® Environmental Response Management Application
Gulf of Mexico



September 2016

NESDIS Suspected Oil 22-September-2016 (1629 CDT)

- Possible Oil
- Possible Thicker Oil

NESDIS Suspected Oil 29-September-2016 (1650 CDT)

- Possible Oil
- Possible Thick Oil

Platforms & Wells

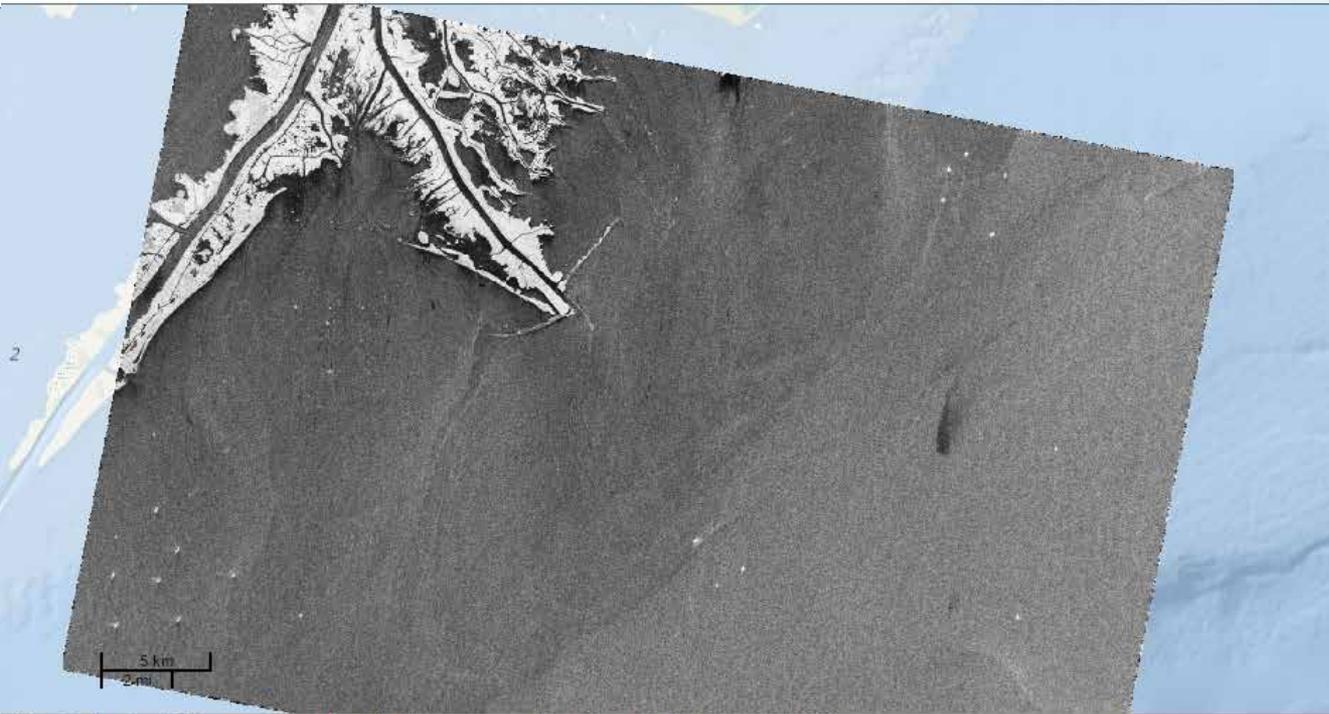
Platform Saratoga (Taylor Energy)

- Taylor Energy

Scale: 1 : 379K Zoom Level: 10 Location: 29.08343°, -88.35850°

Remote Sensing Advances

ERMA® | Environmental Response Management Application
Gulf of Mexico

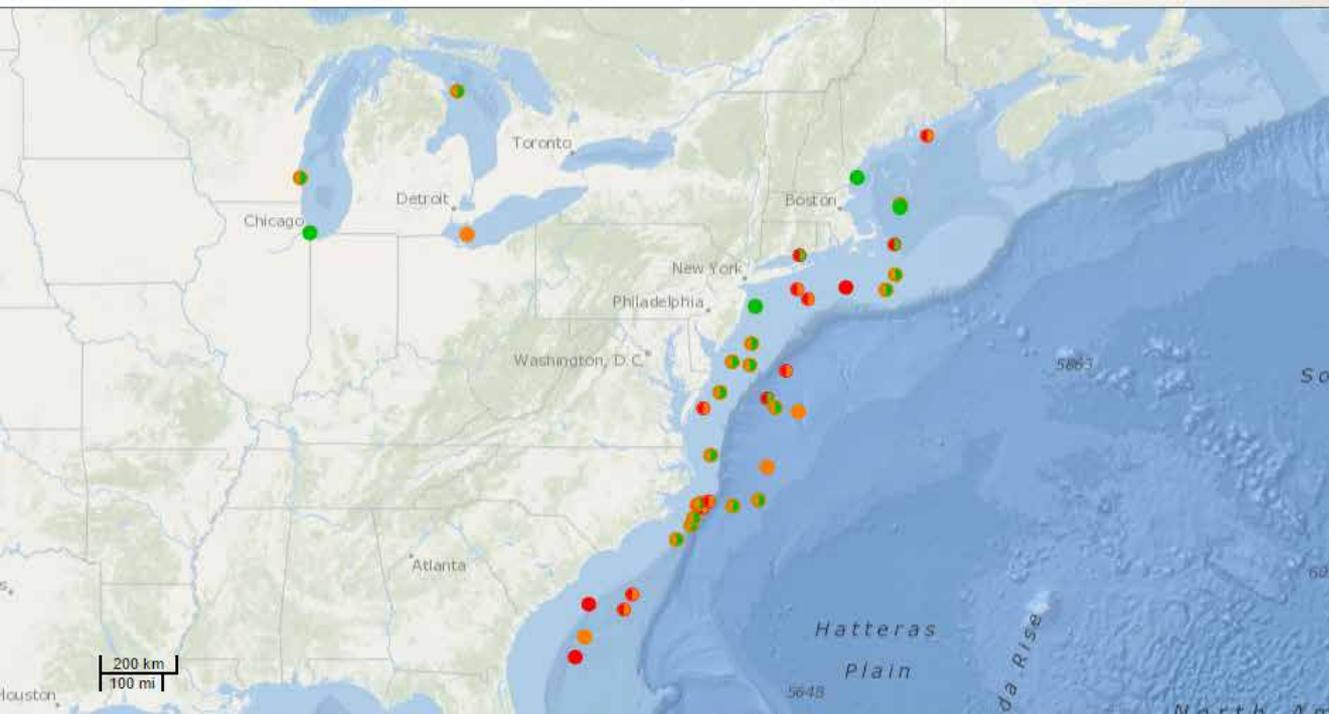


2016 NESDIS/MDA
RS2 Greyscale 2016-11-15

↑N Scale: 1 : 190K Zoom Level: 11 Location: 28.96285°, -88.77836°

NOAA RULET

ERMA® Environmental Response Management Application
Atlantic



Wrecks and Obstructions

Remediation of Underwater Legacy Environmental Threats (RULET) (NOAA)

RULET July 2012 Final Scores

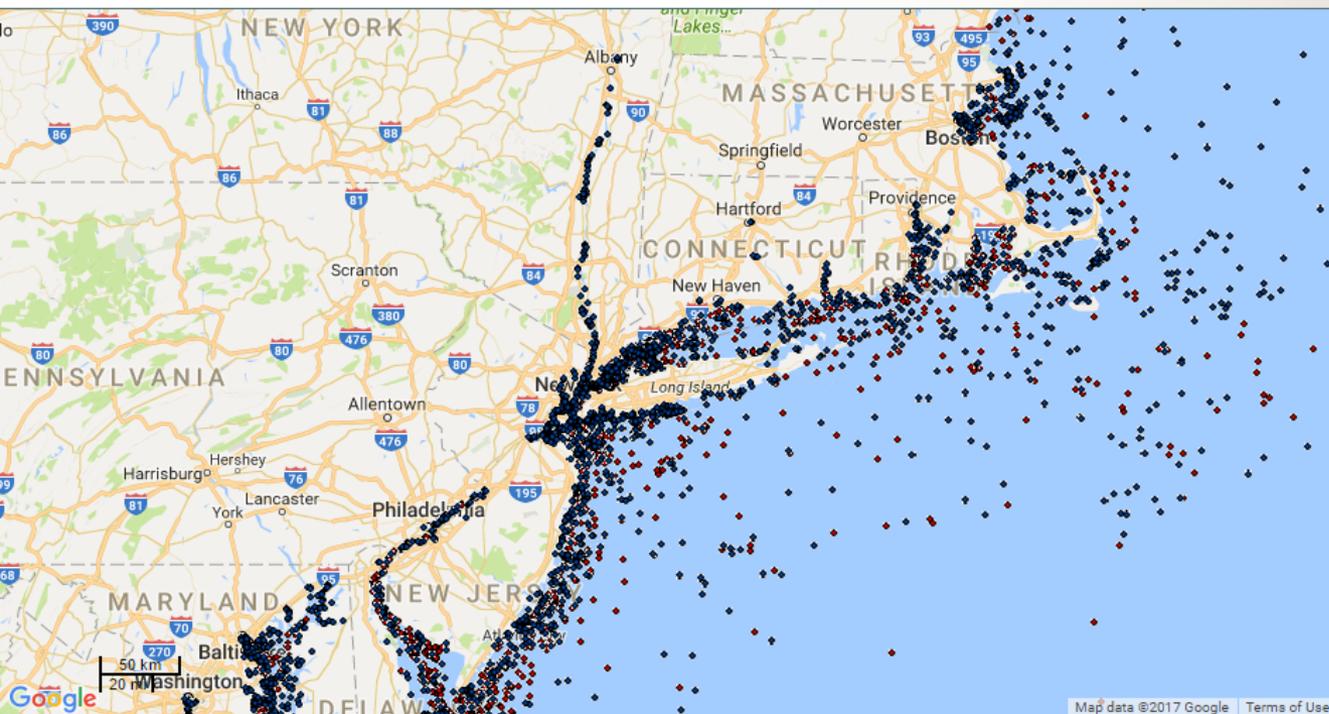
Worst case discharge / most probable discharge score

- High / High
- High / Medium
- High / Low
- Medium / Medium
- Medium / Low
- Low / Low

Scale: 1 : 11M Zoom Level: 5 Location: 40.67081°,-69.51627°

Abandoned & Derelict vessels (ADVs)

ERMA® Environmental Response Management Application
Atlantic



Wrecks and Obstructions

AWOIS Obstructions

- Obstruction
- Obstruction - Covers/uncovers (awash)
- Obstruction - Submerged
- Obstruction - Visible at high water
- ★ Rock - Awash
- ★ Rock - Covered at low water
- ▲ Not Charted
- × Unknown

AWOIS Wrecks

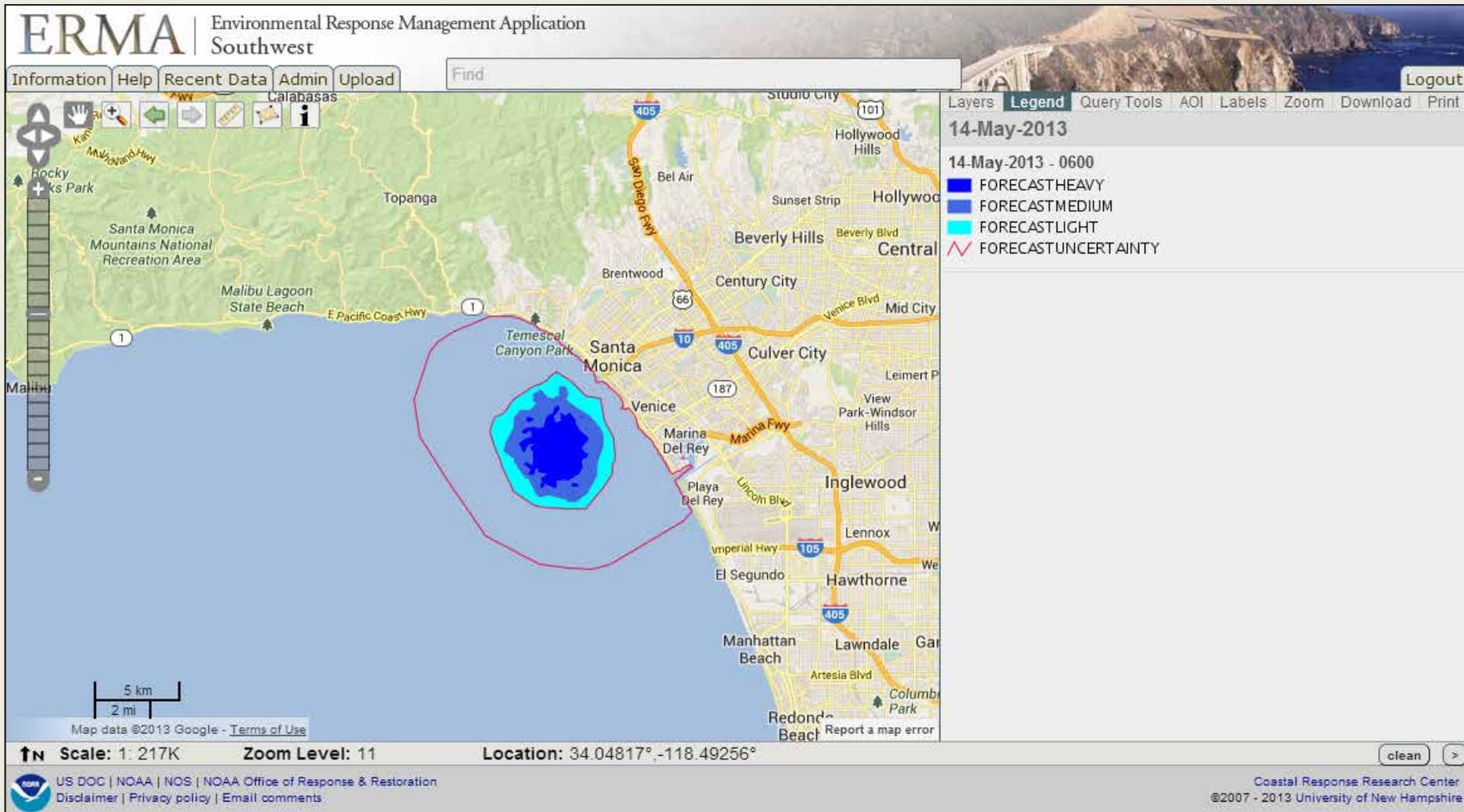
- Wreck
- ⊕ Wreck - Submerged, nondangerous
- ⊕ Wreck - Submerged, dangerous to surface navigation
- ⚓ Wreck - Visible
- ▲ Not Charted
- × Unknown

ENC Wrecks (NOAA)

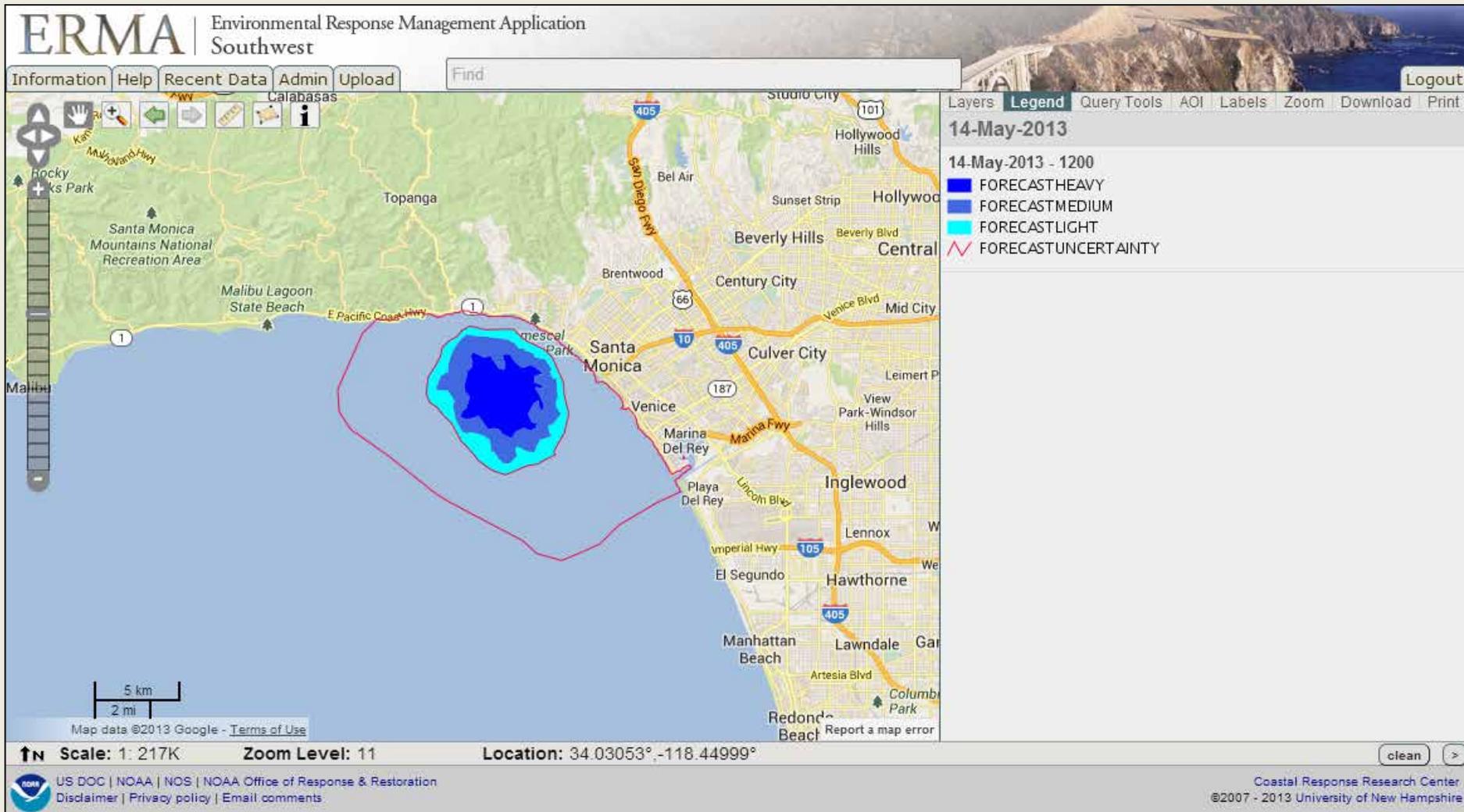
-

Scale: 1 : 3M Zoom Level: 7 Location: 42.75891°,-68.24752°

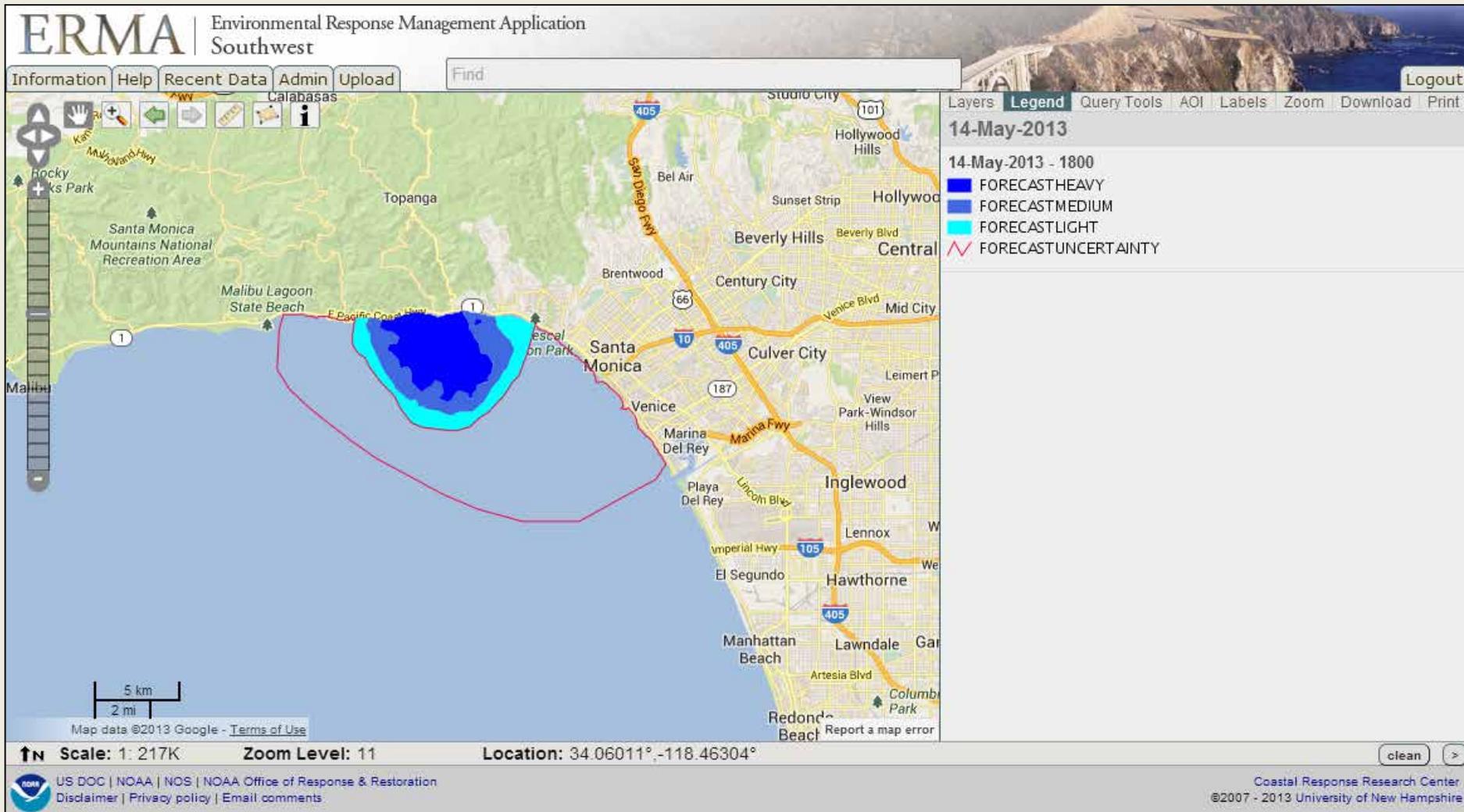
Trajectory Models



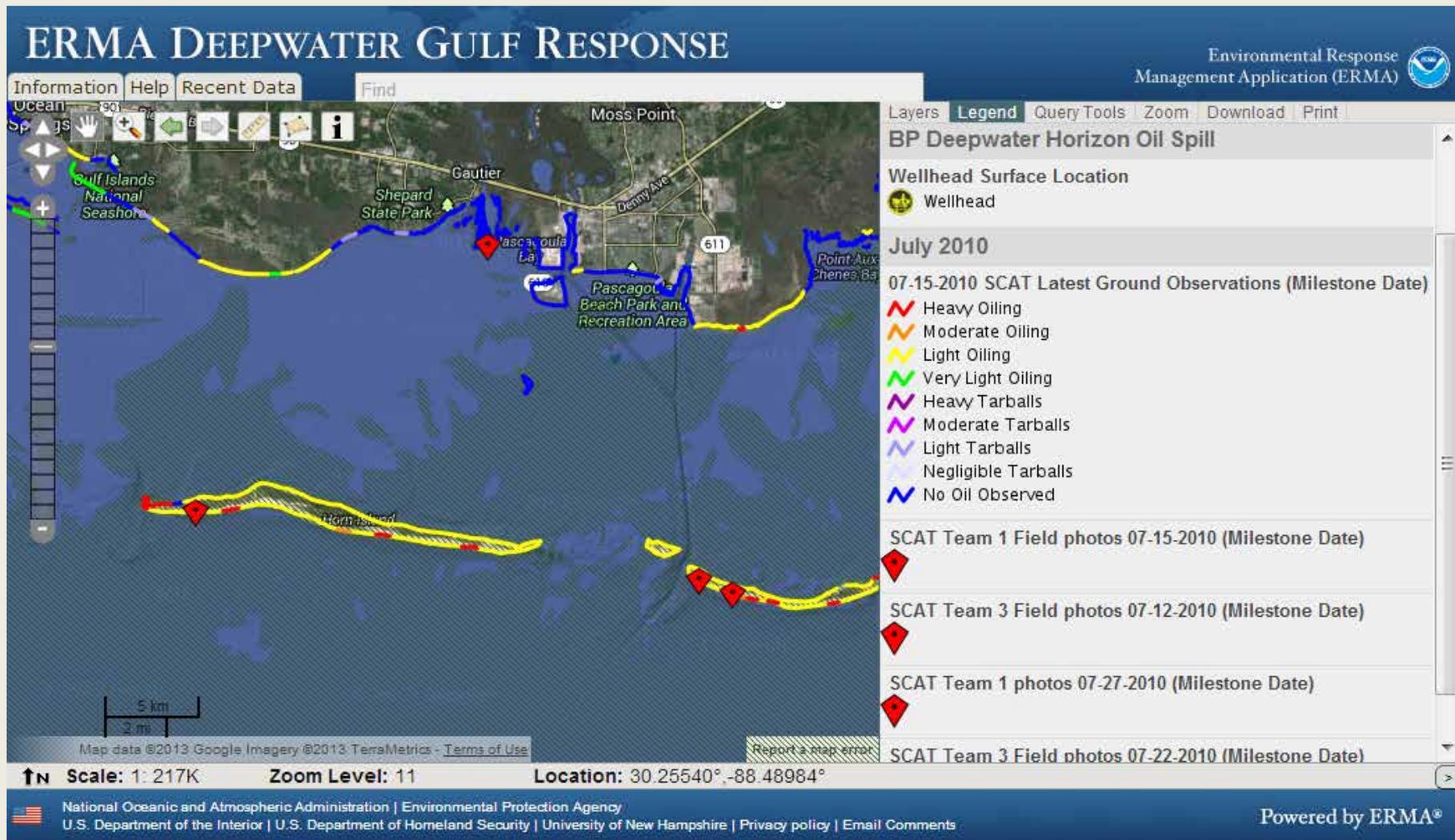
Trajectory Models



Trajectory Models



Shoreline Assessment & Photo Documentation



Shoreline Assessment & Photo Documentation

ERMA DEEPWATER GULF RESPONSE
Environmental Response Management Application (ERMA)

Information Help Recent Data Find
Layers Legend Query Tools Zoom Download Print

BP Deepwater Horizon Oil Spill

Wellhead Surface Location

- Wellhead

July 2010

- 15-2010 SCAT Latest Ground Observations (Milestone Date)
- Heavy Oiling
- Moderate Oiling
- Light Oiling
- Very Light Oiling
- Heavy Tarballs
- Moderate Tarballs
- Light Tarballs
- Negligible Tarballs
- No Oil Observed

SCAT Team 1 Field photos 07-15-2010 (Milestone Date)

SCAT Team 3 Field photos 07-12-2010 (Milestone Date)

SCAT Team 1 photos 07-27-2010 (Milestone Date)

SCAT Team 3 Field photos 07-22-2010 (Milestone Date)

SCAT Team 1 photos 07-27-2010 at 30.2038...

Petitbois Island, MS: Buried layer of oil. Left image shows burial further inland by wind action; right image shows burial by wave action (Gulf is below image).

Map data ©2013 Google Imagery ©2013 TerraMetrics - Terms of Use
Report a map error

↑N Scale: 1: 217K
Zoom Level: 11
Location: 30.39232°, -88.48641°

National Oceanic and Atmospheric Administration | Environmental Protection Agency
U.S. Department of the Interior | U.S. Department of Homeland Security | University of New Hampshire | Privacy policy | Email Comments
Powered by ERMA®

Shoreline Assessment & Photo Documentation

The screenshot displays the ERMA (Environmental Response Application) interface. On the left, a map shows the Gulf Islands National Seashore area with a red location marker. The main area contains two side-by-side photographs of a shoreline assessment. The left photo shows a concrete block partially buried in sand, with a shovel nearby. The right photo shows a similar concrete block, also partially buried. Text overlays on the photos include "SCAT Team 1 Mobile Sector", "Petitbois Island, MS", and coordinates "N 30°12'14\" W 088°29'09\"". A date "07/27/2010" is visible in the bottom right of the right photo. The interface includes a navigation toolbar, a scale bar (1:217K), and a data entry form on the right with fields for "Milestone Date".

ERMA D...
Information Help Rec...
Ocean
Sp...
Gulf Islands National Seashore
5 km
2 mi
Map data ©2013 Go...
↑N Scale: 1: 217K
N 30°12'14"
W 088°29'09"
07/27/2010
Environmental Response Application (ERMA)
Load Print
ons (Milestone Date)
ilestone Date)
ilestone Date)
e Date)
ilestone Date)
Powered by ERMA®

Response and Research Ship Tracking

ERMA® Environmental Response Management Application
Atlantic



NAIS Equipped Vessels

- NAIS - All Vessels (last 8 hours)
- General
- Response
- Research
- Skimmer
- Government
- Source Operations

Scale: 1 : 3M Zoom Level: 7 Location: 41.18515°, -69.32585°

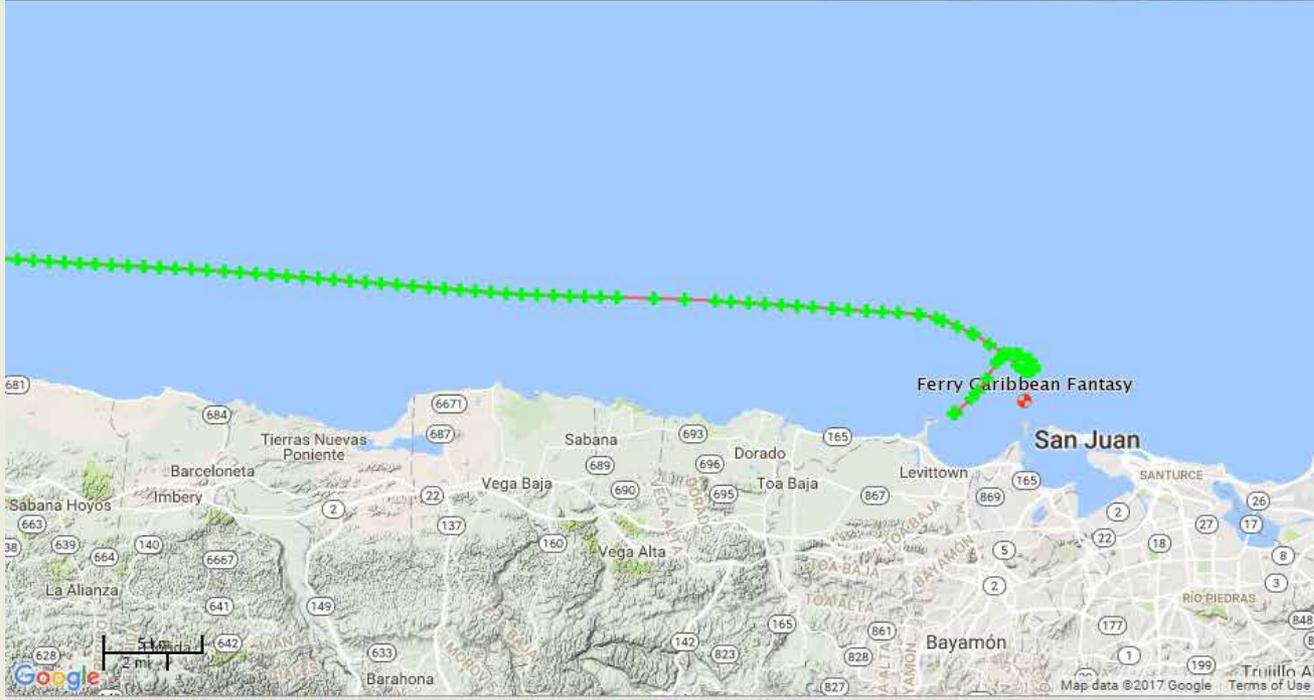
Response and Research Ship Tracking

ERMA® Environmental Response Management Application
Caribbean



Ferry Caribbean Fantasy

- Ferry Caribbean Fantasy, San Juan, PR (2016-0817)
- Ferry Caribbean Fantasy, San Juan, PR (2016-0817)
- Caribbean Fantasy AIS Track Location For 8-17-16
- Caribbean Fantasy AIS Track Location For 8-17-16
- Caribbean Fantasy AIS Point Locations For 8-17-16
- Vessel AIS Point Locations For 8-17-16



Scale: 1 : 206K Zoom Level: 11 Location: 18.52484°, -66.09434°

Field Personnel Tracking

ERMA | Environmental Response Management Application
Gulf of Mexico

Information Help Admin Upload Find Logout

Layers Legend Query Tools AOI Labels Zoom Download Print

Deepwater Horizon MC 252 Incident

- Points + Labels + Tracks
● All SPOT Teams
- Points + Labels + Tracks
● Bird SPOT Teams
- Points + Labels + Tracks
● Marsh SPOT Teams
- Points + Labels + Tracks
● Rapid_Marsh SPOT Teams
- Points + Labels + Tracks
● Submerged SPOT Teams
- Points + Labels + Tracks
● Mussel Watch SPOT Teams
- Points + Labels + Tracks
● Oyster SPOT Teams
- Points + Labels + Tracks
● WQS SPOT Teams
- Points + Labels + Tracks
● Fish SPOT Teams

Scale: 1: 867K Zoom Level: 9 Location: 29.29359°,-87.71210°

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Area Contingency Plan Data

ERMA

Environmental Response Management Application
Gulf of Mexico

Information Help Recent Data Admin Upload

Find

Logout

Layers Legend Query Tools AOI Labels Zoom Download Print

Sectors Corpus Christi | Houston/Galveston (TGLO)

Texas GRP Site Strategies (TGLO) (Zoom Dependent)
Geographic Response Plan

Texas (NOAA ESI 1995)

Shoreline Classification Detailed (line), TX (TGLO) (Zoom Dependent)

- ~ 1A Exposed rocky shores
Exposed rocky banks
- ~ 1B Exposed, solid man-made structures
- ~ 1C Exposed rocky cliffs with boulder talus base
- ~ 2A Exposed wave-cut platforms in bedrock, mud, or clay
Shelving bedrock shores
Rocky shoals; bedrock ledges
- ~ 2B Exposed scarps and steep slopes in clay
- ~ 3A Fine to medium-grained sand
- ~ 3B Scarps & steep slopes in sand
Eroding scarps in unconsolidated sediments
Exposed, eroding banks in unconsolidated sediments
- ~ 3C Tundra cliffs
- ~ 4 Coarse-grained sand beaches
Sand beaches
Sandy bars & gently sloping banks
- ~ 5 Mixed sand & gravel beaches
Mixed sand & gravel bars & gently sloping banks
- ~ 6A Gravel beaches
Gravel beaches (granules & pebbles) - SE Alaska only

↑N Scale: 1: 14K Zoom Level: 15

Location: 27.85940°,-97.05410°

clean >

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Area Contingency Plan Data

ERMA

Environmental Response Management Application
Gulf of Mexico

Information Help Recent Data Admin Upload

Find

Logout

Layers Legend Query Tools AOI Labels Zoom Download Print

i **Identify**
- □ X

Shoreline Classification Detailed (line), TX (TGLO) (Zoom Dependent)

ESI_ylr

OBJECTID	Shape	LENGTH	ESI	ESI2	ESICRIT	FNODE_	TNODE_	LPOLY_	RPOLY_	ESI_BEG_	ESI_BEG_ID	Shape.len
11492	Polyline	7099.264335	10A	10A	10A	0	0	0	0	11506	11507	2452.960191

Texas GRP Site Strategies (TGLO) (Zoom Dependent)

Geographic Response Plan

OBJECTID	Name	link	URL	X_COORD	Y_COORD	SHA
508	48.15	portaran_48.15.pdf	http://gisweb.glo.texas.gov/atlas/atlas/siteplans/corpus/portaran_48.15.pdf	0	0	Polycr clay

Scale: 1: 14K Zoom Level: 15 Location: 27.85940°,-97.05410°
clean >

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ERMA

Information Help Rec

Identify
Shoreline
ESI_lyr
OBJECTID: 11492
Texas
Geographic
OBJECTID: 508
Scale: 1:14K

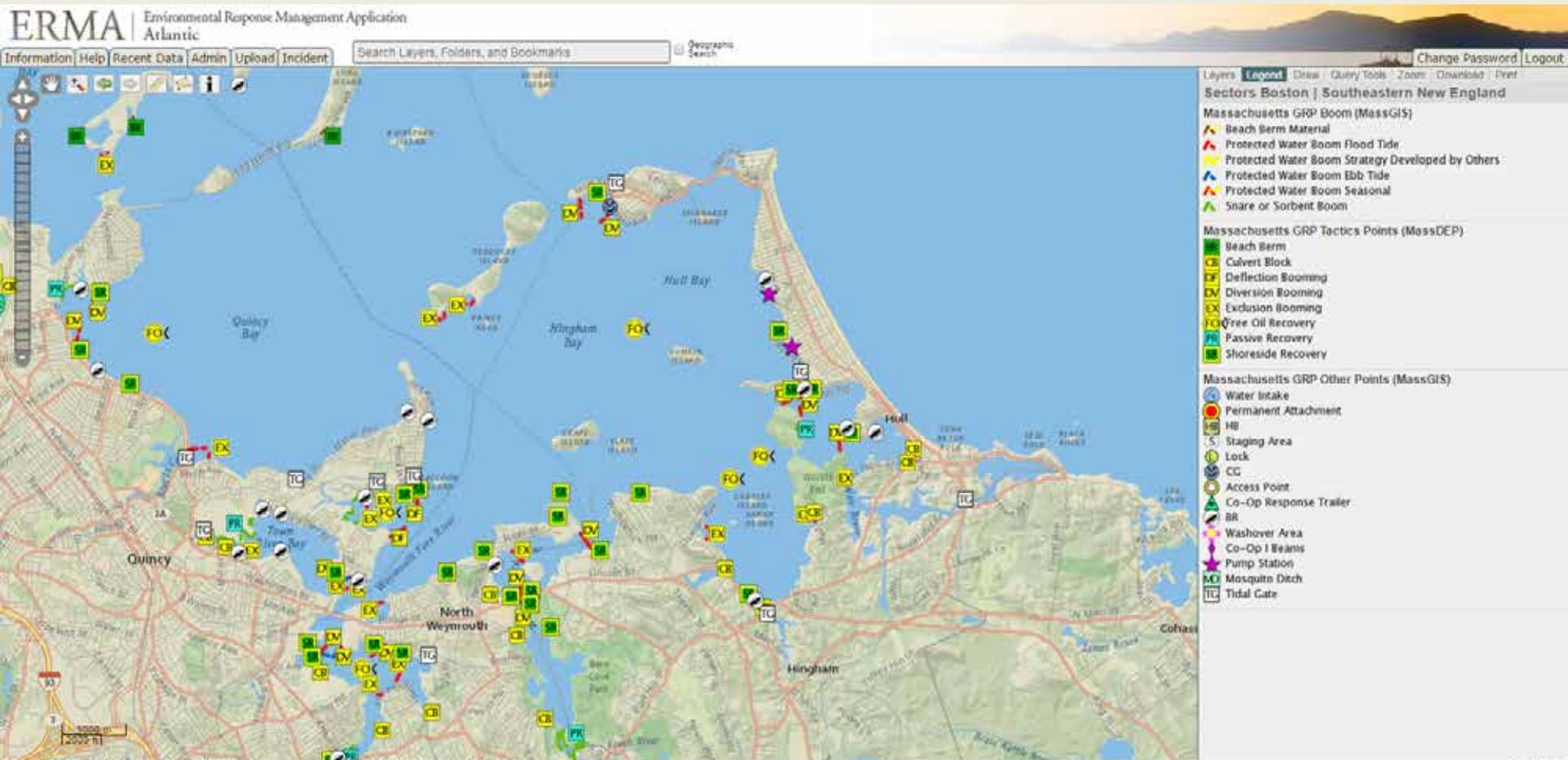
1. Incident Name		2. Operational Period (Date/Time)		Assignment List ICS 204-OS	
3. Branch			4. Division/Group		
5. Operations Personnel		Name	Affiliation	Contact #(s)	
Operations Section Chief					
Branch Director					
Division/Group Supervisor					
6. Resources Assigned This Period *"X" indicates 204a attachment with special instructions					
Resource Identifier	Leader	Contact Info #	# or Persons	Reporting Info/Notes/Remarks	
7. Assignments					
Boom natural pass to prevent migration of oil from Lydia Ann Channel to the interior of Harbor Island Northeast. Provide daily boom maintenance during tide, wind and other climatological changes.					
Safety Note: Responders should note the adjacent Lydia Ann channel is highly trafficked. Often large shrimp boats, barges and other vessels throw high energy wakes in this area.					
8. Site #	9. Quad Name	10. NOAA Chart #	11. TGLO Atlas Page #	12. County	
48.15	Port Aransas	11312-11314	48, Port Aransas	Aransas	
13. Site Information			14. Latitude		
Location is on Harbor Island Northeast, on the west bank along Lydia Ann Channel. This is a natural pass/slough along and between Lydia Ann Channel and the interior of Harbor Island Northeast. Site encompasses fringe marsh including Smooth Cordgrass and Black Mangrove.			27°51'34.73"		
15. Longitude			16. Closest Boat Ramp		
97°03'24.74"			Port Aransas City Marina		
17. Distance From Ramp			18. Boat Type		
0.9 NM			Shallow Draft work boats		
19. Directions From Sector Corpus Christi			20. Closest Airport		
Take Hwy 35 north through Gregory-south on Hwy 361 to Aransas Pass, east on 361 approx. 5 miles to Port Aransas, TX. Boat access only.			Mustang Beach Airport, Port A.		
21. Closest Helispot			24. Width of Inlet		
			360 ft.		
22. Trustee/Contact Numbers			25. Water depth		
USCG	361-888-3162	23. Resources at Risk		1-2 ft.	
USCG Duty	361-533-7166	Atlas Priority:		26. Current	
TGLO	361-825-3300	High - high quality seagrass, birds		27. # of Personnel	
TCEQ	361-825-3100	Environmental:		2-4	
RCC	361-242-3113	High - salt and brackish marshes			
TPWD	281-842-8100 (24 hr)	Economic:			
NRDA	512-426-7291	High			
USFWS	361-994-9005				
28. Booming Strategy Recommendation					
Exclusion booming of natural pass/slough are along and between the Lydia Ann Channel and the interior of Harbor Island Northeast. Pass/slough is approx. 360' in width.					
29. Prepared By:		30. Reviewed by (PSC):		31. Reviewed by (OSC):	
Assignment List		ICS 204 OS (Geographic Response Plan)		Project Updated:	

Response strategies may need to be modified to account for changes due to seasonality, weather conditions, spill characteristics, tides and any other pertinent considerations.

ata

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Massachusetts GRP



Massachusetts GRP



ID location (lat,lon): 42.28838,-70.94441 - Google Chrome

<https://erma.noaa.gov/js/ermaplugins/identify/ident.html>

ID location (lat,lon): 42.28838,-70.94441

Massachusetts GRP Tactics Points (MassDEP)

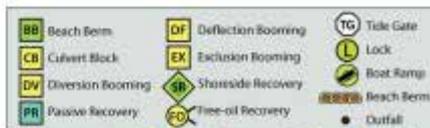
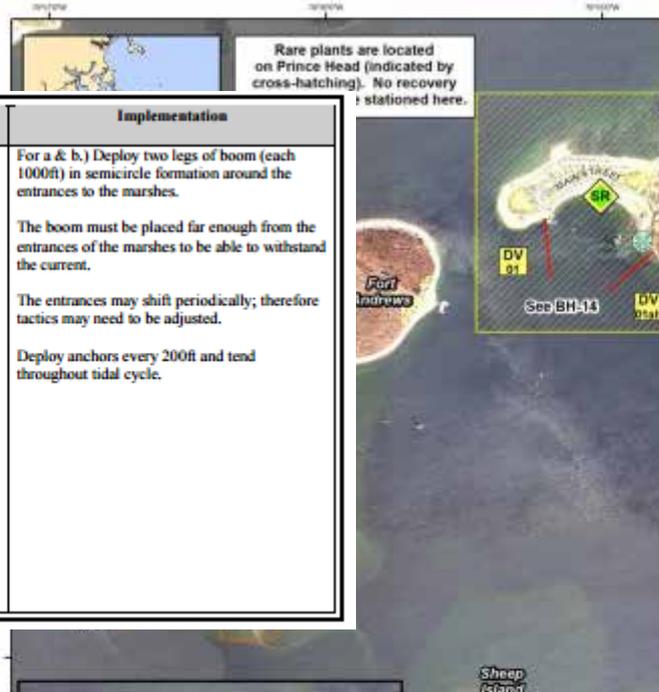
gid	tactic_typ	tactic_num	grp_area_c	site_num	site_name	grp_link	usid
845	EX	01b	BH	15	PeddocksIsland	http://grp.nukaresearch.com/documents/101207BH15PeddocksIsland.pdf	BH15

Massachusetts GRP Boom (MassGIS)

gid	boom_type	grp_area_c	site_num	site_name	grp_link	length_ft
660	PWB	BH	15	Peddocks Island	http://grp.nukaresearch.com/documents/101207BH15PeddocksIsland.pdf	1000



Boston Harbor Geographic Response Plan
Peddocks Island BH-15



A total of 2 State Response Trailers are required to respond to a spill. Responders should always consider on-scene conditions before deployment under certain conditions. Responder safety should always be the first concern. If responders are unable to reach the spill site, other types of spills these tactics will likely require significant modifications.

ID	Location and Description	Response Strategy	Implementation
BH-15-01 EX	<p>Two Locations on the Southern shore of Peddocks Island near:</p> <p>a.) Lat. 42°17'14.03"N Lon. 70°56'51.07"W</p> <p>b.) Lat. 42°17'22.22"N Lon. 70°56'30.72"W</p>	<p>Exclusion Booming</p> <p>Prevent oil from entering the interior marshes on the Southern shore of Peddocks Island.</p>	<p>For a & b.) Deploy two legs of boom (each 1000ft) in semicircle formation around the entrances to the marshes.</p> <p>The boom must be placed far enough from the entrances of the marshes to be able to withstand the current.</p> <p>The entrances may shift periodically; therefore tactics may need to be adjusted.</p> <p>Deploy anchors every 200ft and tend throughout tidal cycle.</p>

gid	tactic	typ	tactic_num
845	EX		01b

Massachusetts GRP Booms			
gid	boom_type	grp_area	
660	PWB	BH	

ID	Response Resources	Staging Area Site Access	Resources Protected	Special Considerations
BH-15-01 EX	<p>Deployment Equipment (Both sites)</p> <p>2000 ft 18" boom</p> <p>8 anchor systems</p> <p>4 anchor stakes</p> <p>Vessels</p> <p>2 skiffs</p> <p>Personnel/Shift</p> <p>6-8 total (1 vessel operator + 1 responder per vessel, 4 shoreside responders)</p> <p>Tending Vessels</p> <p>1 skiff</p> <p>Personnel/Shift</p> <p>3-4 total (1 vessel operator + 1 responder per vessel, 2 shoreside responders)</p>	<p>There possible site access from the dock at the Northeastern tip of the island. Recovery materials will need to be brought to the site by boat.</p> <p>NOAA Chart 13270</p>	<p>Marine Mammals – Atlantic White Sided Dolphin, Harbor Porpoise, Harbor Seals</p> <p>Fish – Finfish</p> <p>Birds – Shorebirds, Seabirds, Nesting Sites</p> <p>Invertebrates – Lobster, crab, shrimp, shellfish</p> <p>Threatened Species – Rare Plants</p> <p>Human Use – Beach</p> <p>Habitat – Beach, Marsh/Swamp, Rocky, Riprap, Tidal Flats</p>	<p>Vessel master should have local knowledge.</p> <p>Rare plants are located on Prince Head (indicated by cross-hatching). No recovery tactics should be stationed here.</p> <p>Tested: not yet</p> <p>Consider the time of year and relative presence of recreational boats when preparing to implement these strategies. Consult with the local harbormaster to develop a plan to address the presence of recreational boaters. Consider encouraging the immediate removal of recreational boats from target areas in the event of a spill if time allows.</p>

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Massachusetts GRP Boom (MassGIS)

Beach Berm Material

Protected Water Boom Flood Tide

Protected Water Boom Strategy Developed by Others

Protected Water Boom Ebb Tide

Protected Water Boom Seasonal

Snare or Sorbent Boom

Massachusetts GRP Tactics Points (MassDEP)

usid
BH15

ER

Information

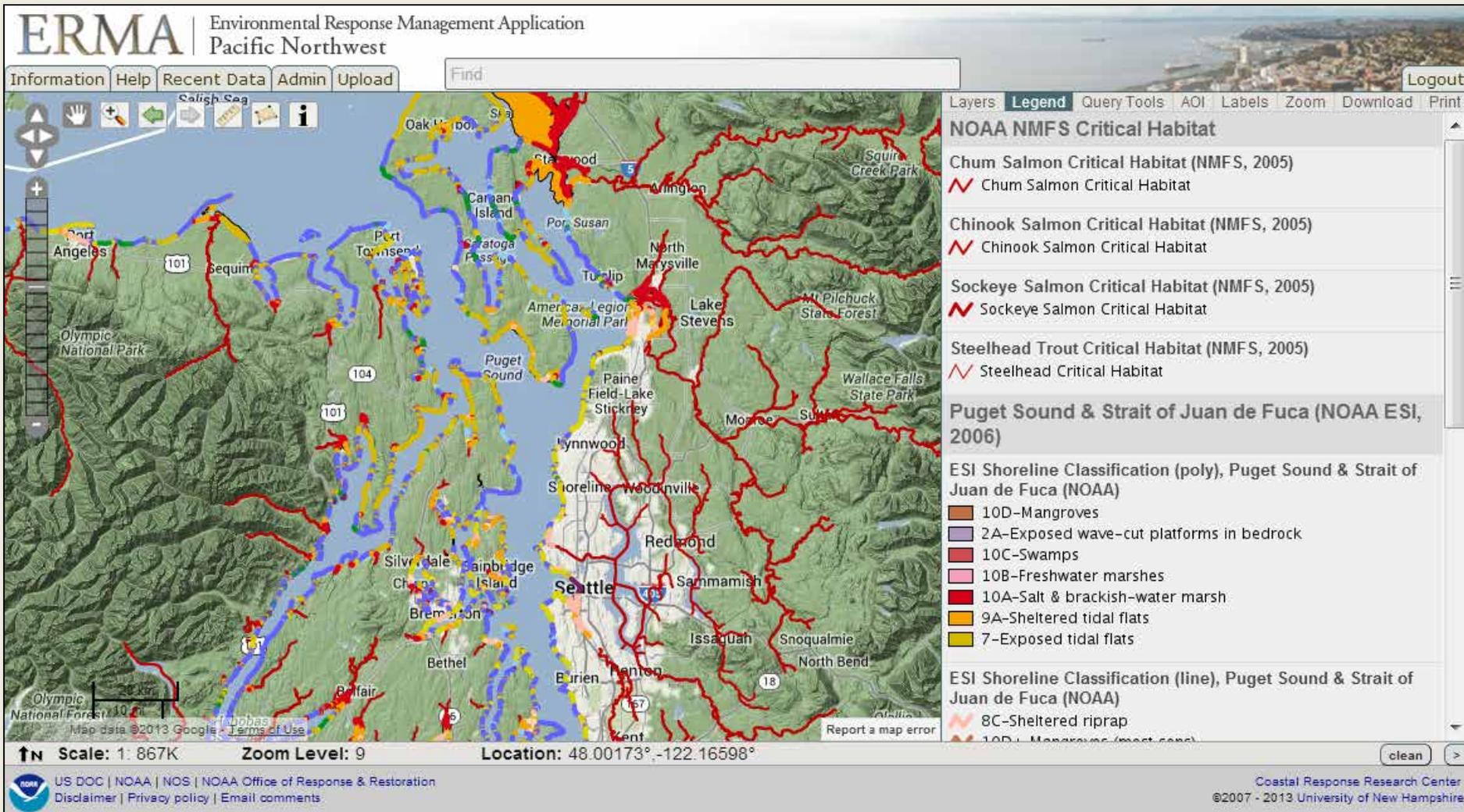
Scale: 1 : 40K

Zoom Level: 13

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Resources at Risk



Response Imagery

The screenshot displays the ERMA Atlantic web application interface. At the top left, the logo reads "ERMA | Environmental Response Management Application Atlantic". Below this is a navigation bar with tabs for "Information", "Help", "Recent Data", "Admin", and "Upload", along with a "Find" search box. The main map area shows an aerial view of a coastal region with buildings and a shoreline. On the right side, a "Layers" panel is open, listing various data layers. The "Imagery & Remote Sensing" category is expanded, showing a list of NOAA NGS Aerial Imagery from 10/31/2012 to 11/06/2012, with the 10/31/2012 image selected. Other categories include "Public Safety & Infrastructure", "Response Planning", "Restoration", "Weather, Oceanography, & Natural Hazards", "Hurricane and Post Tropical Storm Sandy", "Weather Predictions & Coastal Monitoring", "Historic Incidents & Drills", and "ERMA Tools". At the bottom of the map, a status bar shows "Scale: 1: 846", "Zoom Level: 19", and "Location: 39.95969°,-74.06726°". The footer contains the NOAA logo, "US DOC | NOAA | NOS | NOAA Office of Response & Restoration", and "Coastal Response Research Center ©2007 - 2013 University of New Hampshire".

ERMA | Environmental Response Management Application
Atlantic

Information Help Recent Data Admin Upload Find Logout

Layers Legend Query Tools AOI Labels Zoom Download Print

clear all collapse all manage

- Public Safety & Infrastructure
- Response Planning
- Restoration
- Weather, Oceanography, & Natural Hazards
- Hurricane and Post Tropical Storm Sandy
 - Imagery & Remote Sensing
 - NOAA NGS Aerial Imagery
 - NOAA Aerial Imagery 11/06/2012
 - NOAA Aerial Imagery 11/05/2012
 - NOAA Aerial Imagery 11/04/2012
 - NOAA Aerial Imagery 11/03/2012
 - NOAA Aerial Imagery 11/02/2012
 - NOAA Aerial Imagery 11/01/2012
 - NOAA Aerial Imagery 10/31/2012
 - NCDOT Aerial Images 10/31/12
 - Collected Civil Air Patrol (CAP) Images (Zoom Dependent)
 - Google Aerial Imagery 11/04/2012 (Flight 1)
 - Imagery Observed Point Damages (Zoom Dependent)
 - Weather Predictions & Coastal Monitoring
 - Historic Incidents & Drills
 - ERMA Tools

Bookmark Views: new Expand

Scale: 1: 846 Zoom Level: 19 Location: 39.95969°,-74.06726°

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Response Imagery

ERMA | Environmental Response Management Application
Atlantic

Information | Help | Recent Data | Admin | Upload | Find | Logout

Layers | Legend | Query Tools | AOI | Labels | Zoom | Download | Print

clear all collapse all manage

- Public Safety & Infrastructure
- Response Planning
- Restoration
- Weather, Oceanography, & Natural Hazards
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 - Imagery & Remote Sensing
 - NOAA NGS Aerial Imagery
 - NOAA Aerial Imagery 11/06/2012
 - NOAA Aerial Imagery 11/05/2012
 - NOAA Aerial Imagery 11/04/2012
 - NOAA Aerial Imagery 11/03/2012
 - NOAA Aerial Imagery 11/02/2012
 - NOAA Aerial Imagery 11/01/2012
 - NOAA Aerial Imagery 10/31/2012
 - NCDOT Aerial Images 10/31/12
 - Collected Civil Air Patrol (CAP) Images (Zoom Dependent)
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 - Imagery Observed Point Damages (Zoom Dependent)
 - Weather Predictions & Coastal Monitoring
 - Historic Incidents & Drills
 - ERMA Tools

Bookmark Views: new Expand

Scale: 1: 846 | Zoom Level: 19 | Location: 39.95981°,-74.06725°

Imagery ©2013, DigitalGlobe - Terms of Use | Report a map error

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RMP Facilities

ERMA® Environmental Response Management Application
Atlantic

ID location (lat,lon): 41.06577,-74.66496

[Add Selected Features To Query Tab \(Polygons Only\)](#)

Risk Management Plan Facilities (EPA) (RMP as of 01-01-2017)

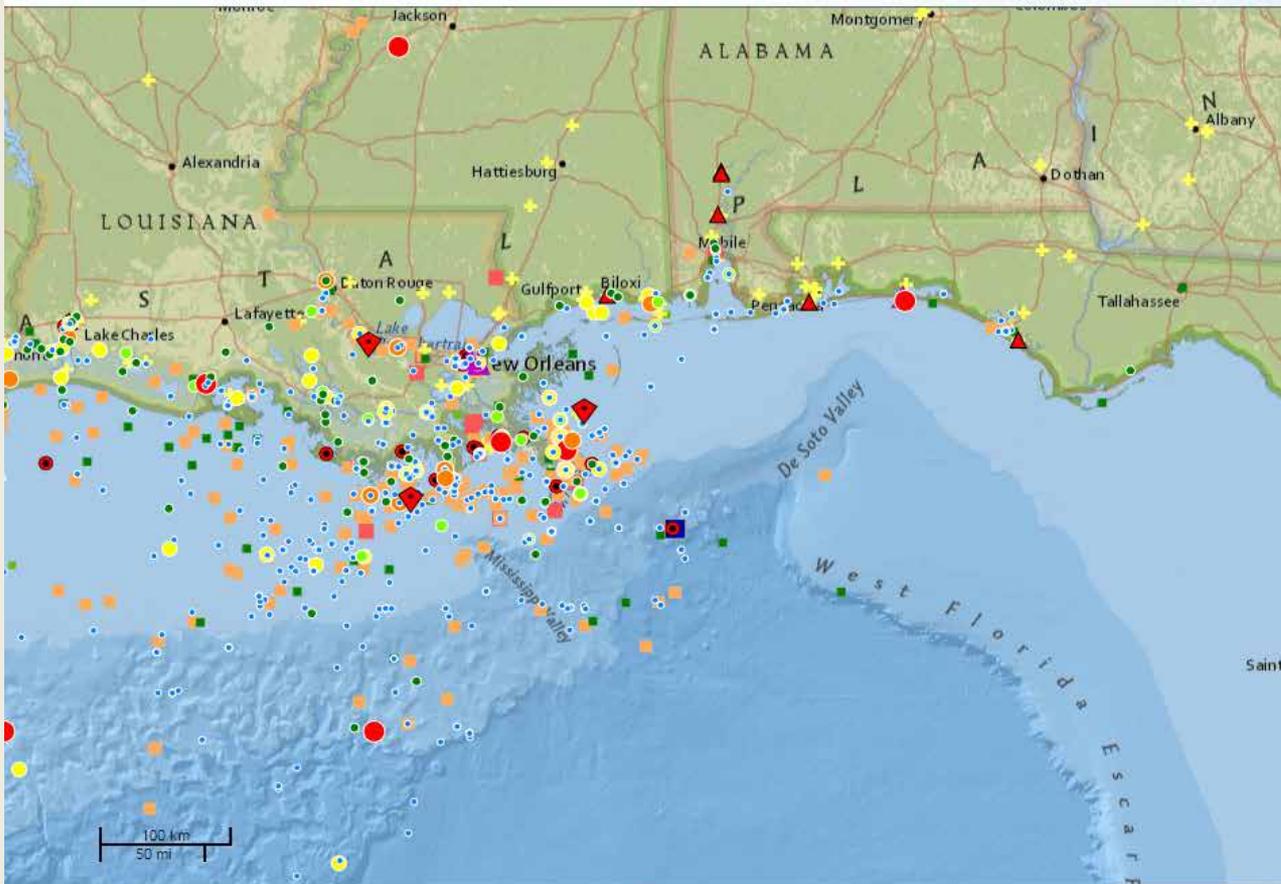
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558	100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871	41.0633330000	-74.6655560000		0.000000000000	9733837869.00		9733837869.00	Case Schipper	Isobutane [Propane, 2-methyl]	469900.000000
559	100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871	41.0633330000	-74.6655560000		0.000000000000	9733837869.00		9733837869.00	Case Schipper	Methyl ether [Methane, oxybis-]	90000.000000
560	100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871	41.0633330000	-74.6655560000		0.000000000000	9733837869.00		9733837869.00	Case Schipper	Diffluoroethane [Ethane, 1,1-difluoro-]	600000.000000
561	100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871	41.0633330000	-74.6655560000		0.000000000000	9733837869.00		9733837869.00	Case Schipper	Propane	423400.000000
562	100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871	41.0633330000	-74.6655560000		0.000000000000	9733837869.00		9733837869.00	Case Schipper	Butane	340480.000000



Scale: 1 : 3M Zoom Level: 7 Location: 43.06549°,-69.02784°

Regional Spill Response History

ERMA | Environmental Response Management Application
Gulf of Mexico



NOAA OR&R Activities
OR&R Activities in the Southeast Region by ERD Activity, Jan. 1, 2009 - Apr. 25, 2013

- Notification
- Phone Support
- Products Generated
- On Scene Support
- No ERD Activity (ARD, Marine Debris, Special Project)

DARRP Case Locations

- Hazardous Waste Site
- Oil Spill Case
- Hazardous Materials Release
- Special Project
- Ship Grounding

USCG Sectors Galveston, New Orleans, & Mobile MISLE Pollution Reports

MISLE Pollution Substances Spilled in 2013 (USCG)

- Units in Pounds (Solids Only) or Cubic Meters (Gases Only)
- > 0-10 Gallons (Liquids Only)
- > 10-50 Gallons (Liquids Only)
- > 50-100 gallons (Liquids Only)
- > 100-1000 Gallons (Liquids Only)
- > 1000-5000 Gallons (Liquids Only)
- > 5000 Gallons (Liquids Only)

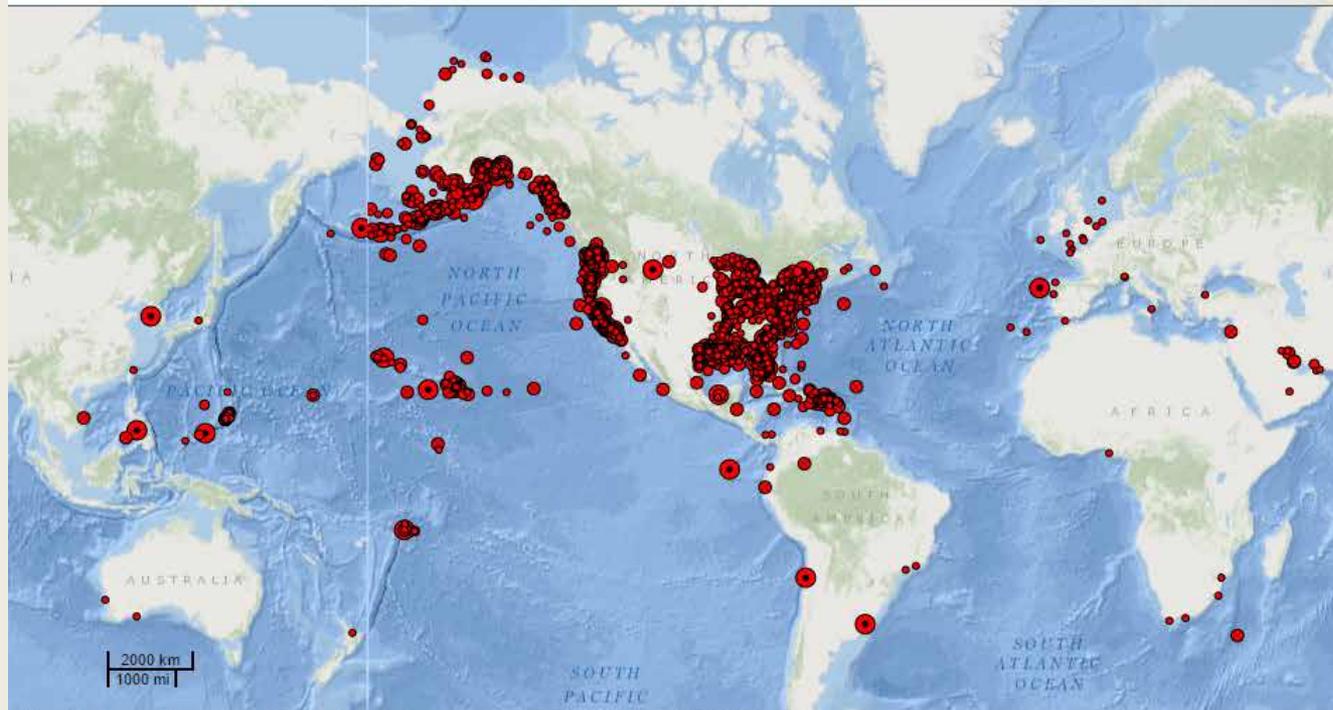
ResponseLink Hotlines

NOAA ORR Incident News

Scale: 1 : 3M Zoom Level: 7 Location: 29.88015°,-88.56207°

Regional Spill Response History

ERMA® Environmental Response Management Application
Atlantic



ResponseLink Hotlines

All Response Link Incidents (Historical & Active)

- Notification
- Phone Support
- Products Generated
- On-Scene Support

Scale: 1 : 98M Zoom Level: 2 Location: 71.55019°, 62.44061°

NOAA ESI Updates

ERMA® Environmental Response Management Application
Atlantic



ESI Area of Interest, Maine and New Hampshire (NOAA)
ESI AOI

New York and New Jersey (NOAA ESI 2016)

ESI Area of Interest, New York and New Jersey (NOAA)
ESI AOI

Long Island Sound (NOAA ESI 2016)

ESI Area of Interest, Long Island Sound (NOAA)
ESI AOI

Georgia (NOAA ESI 2015)

ESI Area of Interest, Georgia (NOAA)
ESI AOI

Chesapeake Bay (NOAA ESI 2016)

ESI Area of Interest, Chesapeake Bay (NOAA)
ESI AOI

North Carolina (NOAA ESI 2016)

ESI Area of Interest, North Carolina (NOAA)
ESI AOI

South Carolina (NOAA ESI 2015)

ESI Area of Interest, South Carolina (NOAA)
ESI AOI

Scale: 1 : 11M Zoom Level: 5 Location: 39.79217°, -67.42024°

ESI Imagery

ERMA® | Environmental Response Management Application
Atlantic



Background Layers

Google

- Google Street
- Google Satellite
- Google Terrain
- Google Hybrid

Esri

Open Street Maps

Blank

Admin Boundaries & Reference Features

Bathymetry & Hydrology

Environmental Quality & Monitoring

Marine Debris

Imagery & Remote Sensing

GOES Imagery

NESDIS Marine Pollution Surveillance Reports

New York Harbor Web Cams

ESI Imagery - Northeast States (NOAA) ©

RGB Aerial Imagery (NOAA)

CIR Aerial Imagery (NOAA)

RGBN Aerial Imagery (NOAA)

USGS Orthoimagery 1 Foot Scale

NADP 2000 Vermont Imagery (VCGI) ©

Bookmark Views:

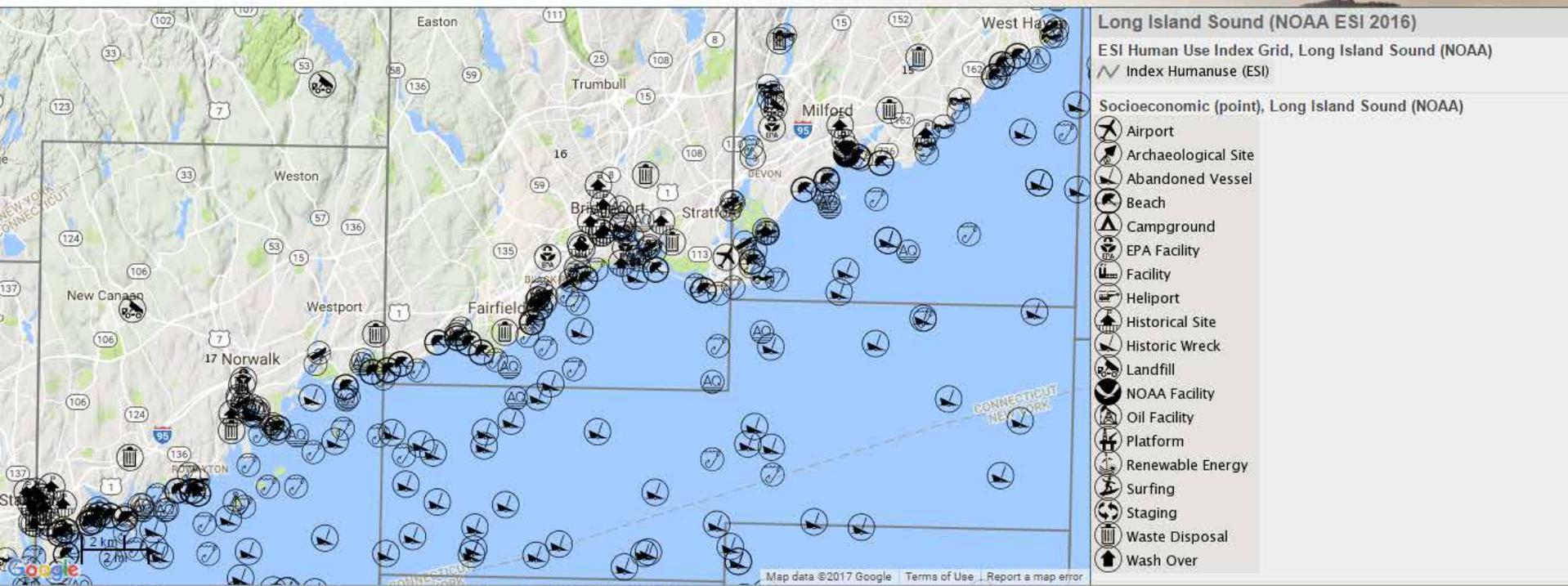


Map data ©2017 Google | Terms of Use | Report a map error

↑N Scale: 1 : 10K Zoom Level: 15 Location: 40.71280°,-73.99818°

ESI Human Use

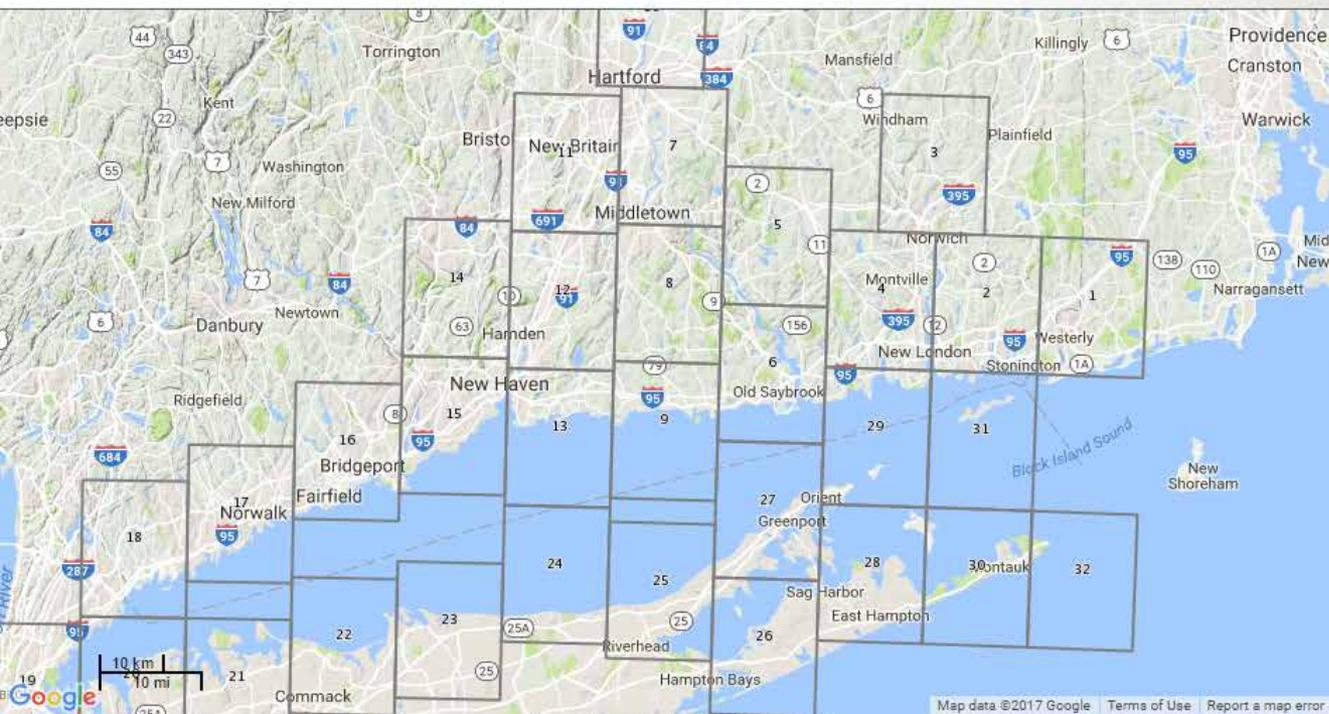
ERMA® Environmental Response Management Application
Atlantic



Scale: 1 : 163K Zoom Level: 11 Location: 41.06096°,-72.93194°

ESI Human Use Index

ERMA® Environmental Response Management Application
Atlantic



Active View: ESI

[show all layers](#)

Background Layers

Google

- Google Terrain

Natural Resources, Habitats, & Managed Areas

Environmental Sensitivity Index (NOAA ESI)

Long Island Sound (NOAA ESI 2016)

- ESI Bio Index Grid, Long Island Sound (NOAA)
- ESI Human Use Index Grid, Long Island Sound (NOAA)

Bookmark Views:

My Views

- DARRP Case Locations
- ESI
- NESDIS
- New York Inland Booming Strategies
- NY Layers
- Protection and observed oil
- Sandy Example
- Stellwagen, Charts, AIS
- weather

Shared Views

default

Scale: 1 : 652K Zoom Level: 9 Location: 41.40203°, -72.38881°

ERMA® | Environmental Res
Atlantic



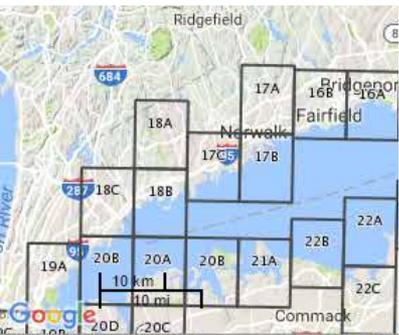
Secure | <https://erma.noaa.g>

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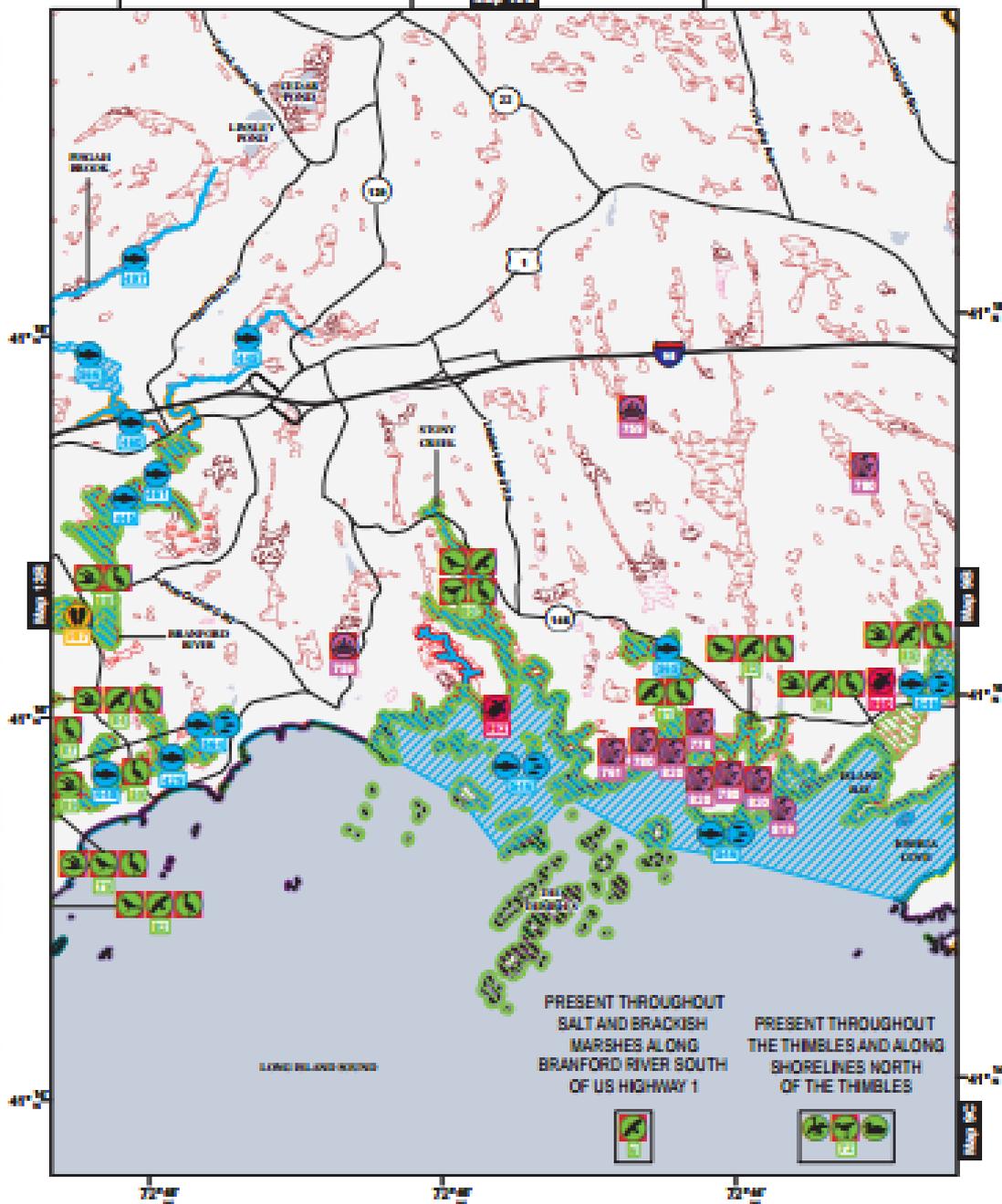
Add Selected Features To Query

ESI Bio Index Grid, Long I

TILE_NAME	NAME
13A	Long Island Sou



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PRESENT THROUGHOUT
SALT AND BRACKISH
MARSHES ALONG
BRANFORD RIVER SOUTH
OF US HIGHWAY 1

PRESENT THROUGHOUT
THE THIMBLES AND ALONG
SHORELINES NORTH
OF THE THIMBLES

Map 13A
Long Island Sound



SEE BACK OF MAP
for details about mapped species and
other species that occur in mapped area.
Data Published: September 2016

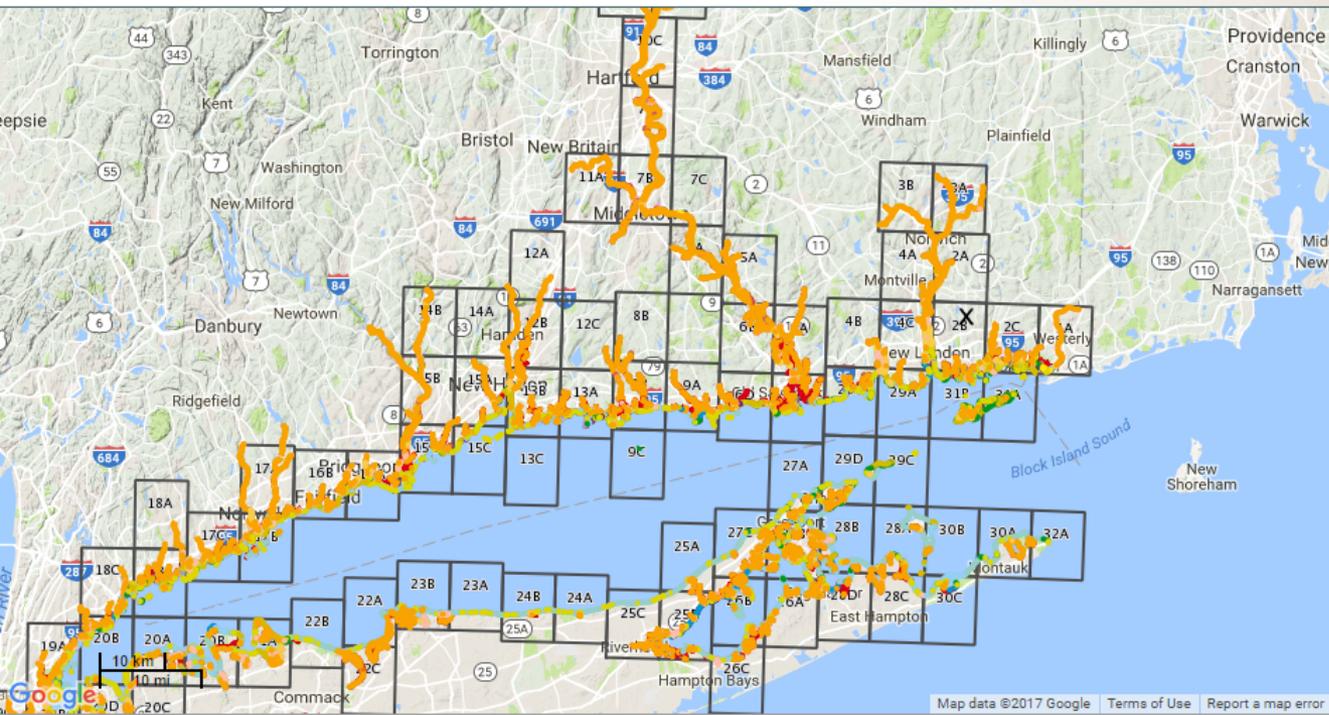


nd (NOAA ESI 2016)
ong Island Sound (NOAA)

3A.pdf

ESI Updates Long Island

ERMA® Environmental Response Management Application
Atlantic



- 4 Coarse-grained sand beaches
Sand beaches
Sandy bars & gently sloping banks
- 5 Mixed sand & gravel beaches
Mixed sand & gravel bars & gently sloping banks
- 6A Gravel beaches
Gravel beaches (granules & pebbles) - SE Alaska only
Gravel bars & gently sloping banks
- 6B Riprap
Gravel beaches (cobbles and boulders) - SE Alaska only
- 6D Boulder rubble
- 7 Exposed tidal flats
- 8A Sheltered scarps in bedrock, mud, or clay
Sheltered rocky shores (impermeable) - SE Alaska only
- 8B Sheltered, solid man-made structures
Sheltered rocky shores (permeable) - SE Alaska only
- 8C Sheltered riprap
- 8D Sheltered rocky rubble shores
- 8E Peat Shorelines
- 8F Vegetated, steeply-sloping bluffs
- 9A Sheltered tidal flats
Sheltered sand/mud flats
- 9B Vegetated low banks
- 9C Hypersaline tidal flats
- 10A Salt & brackish-water marsh
- 10B Freshwater marshes
- 10C Swamps
- 10D Scrub-shrub wetlands
Mangroves - tropical climates only
- 10E Inundated low-lying tundra

ESI Bio Index Grid, Long Island Sound (NOAA)
Index Bio (ESI)

Scale: 1 : 652K Zoom Level: 9 Location: 41.85983°, -71.31215°

Inland & Coastal GRP Efforts

- EPA & NYSDEC: Inland rail GRP data ingest and distribution through ERMA.
 - Update base data to support GRP strategies.
- BSEE: Inventory, ingest, and deliver current GRP data via ERMA.

ERMA provides centralized access to GRPs for viewing and consumption by download, map services, or directing to authoritative source.

Inland Rail GRPs in ERMA

ERMA® Environmental Response Management Application
Atlantic



Albany County, NY GRPs

0.5 Mile ERG Distance (Fires)

0.5 Mile Fire Buffer

1000' ERG Distance (Spills)

1000' Spill Buffer

Booming Strategies

Boom Strategies

Cayuga County, NY GRPs

Booming Strategies

Booming Strategies

Chautauqua County, NY GRPs

Booming Strategies

Booming Strategies

Clinton County, NY GRPs

Booming Strategies

Booming Strategies

Essex County, NY GRPs

Booming Strategies

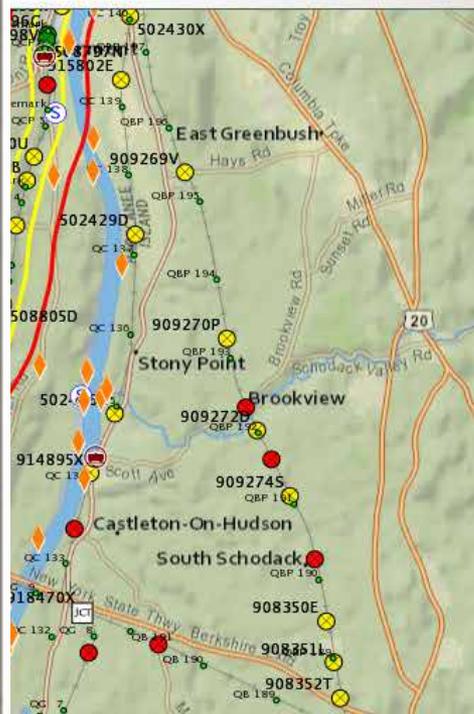
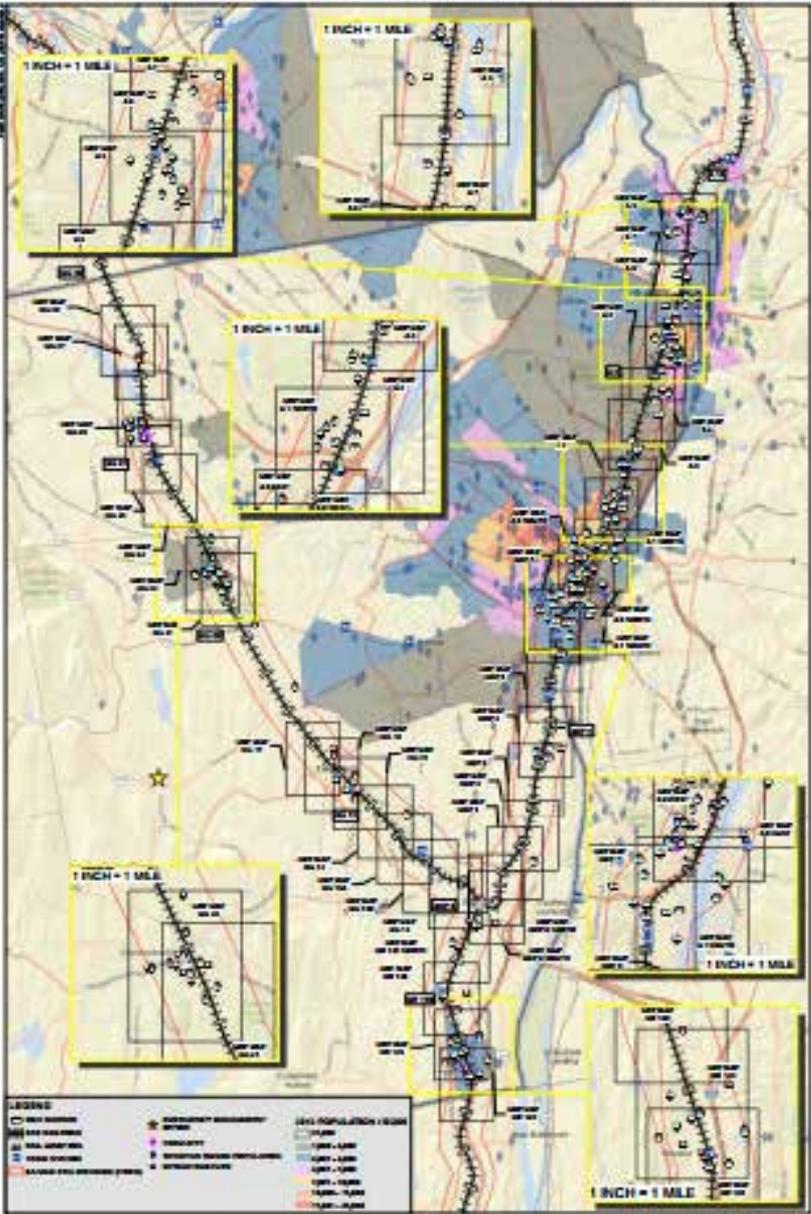
Boom Strategies

Erie County, NY GRPs

Booming Strategies

Scale: 1 : 5M Zoom Level: 6 Location: 42.72552°,-75.05707°

Picture & Booming Strategies

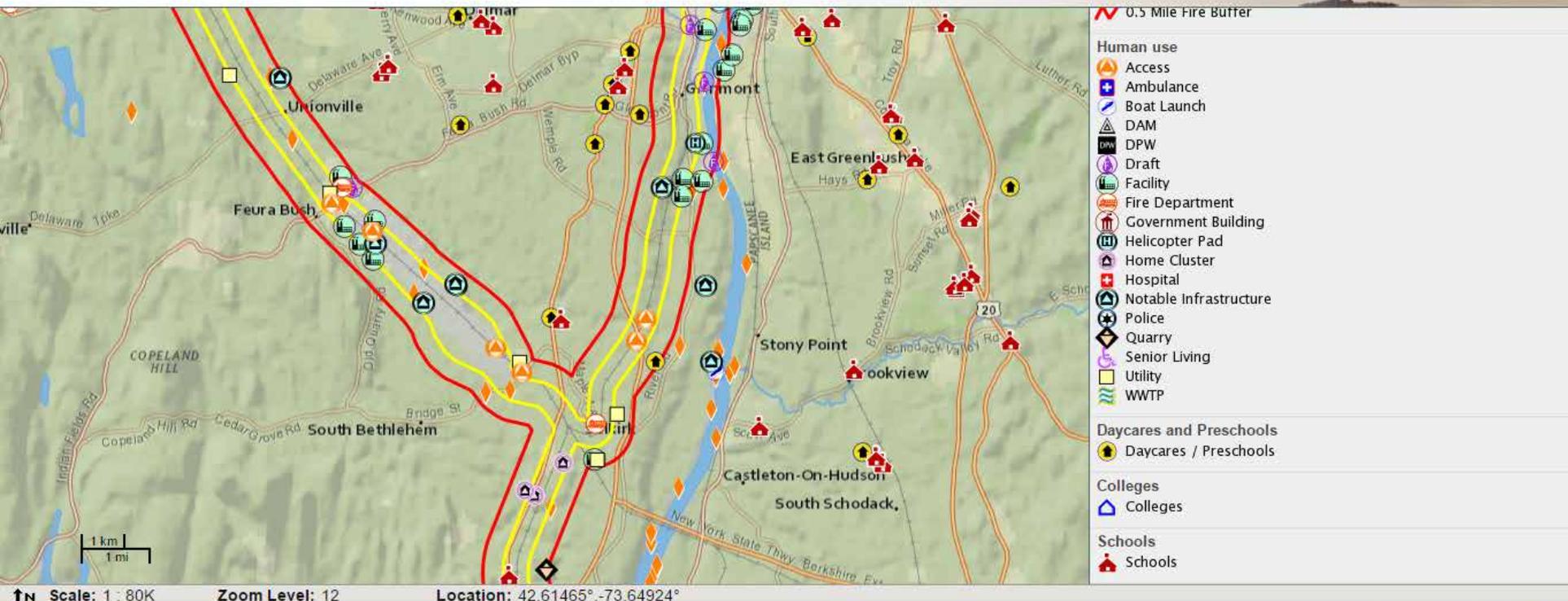


Albany County, NY GRPs	
1000' ERG Distance (Spills)	Yellow shaded area
1000' Spill Buffer	Yellow line
0.5 Mile ERG Distance (Fires)	Red shaded area
0.5 Mile Fire Buffer	Red line
Railroad Crossings	
RAILROAD / STREET CROSSING - RR ABOVE GRADE	Green circle
RAILROAD / STREET CROSSING - RR AT GRADE	Yellow circle
RAILROAD / STREET CROSSING - RR BELOW GRADE	Red circle
Staging Areas	
Staging Area	Blue circle with 'S'
Rail Mile Marker	
Rail Mile Marker	Black dot
Rail Junction	
Rail Junction	Square
Freight/ Train Station/ Siding	
Freight/ Train Station/ Siding	Red circle
Booming Strategies	
Boom Strategies	Orange diamond



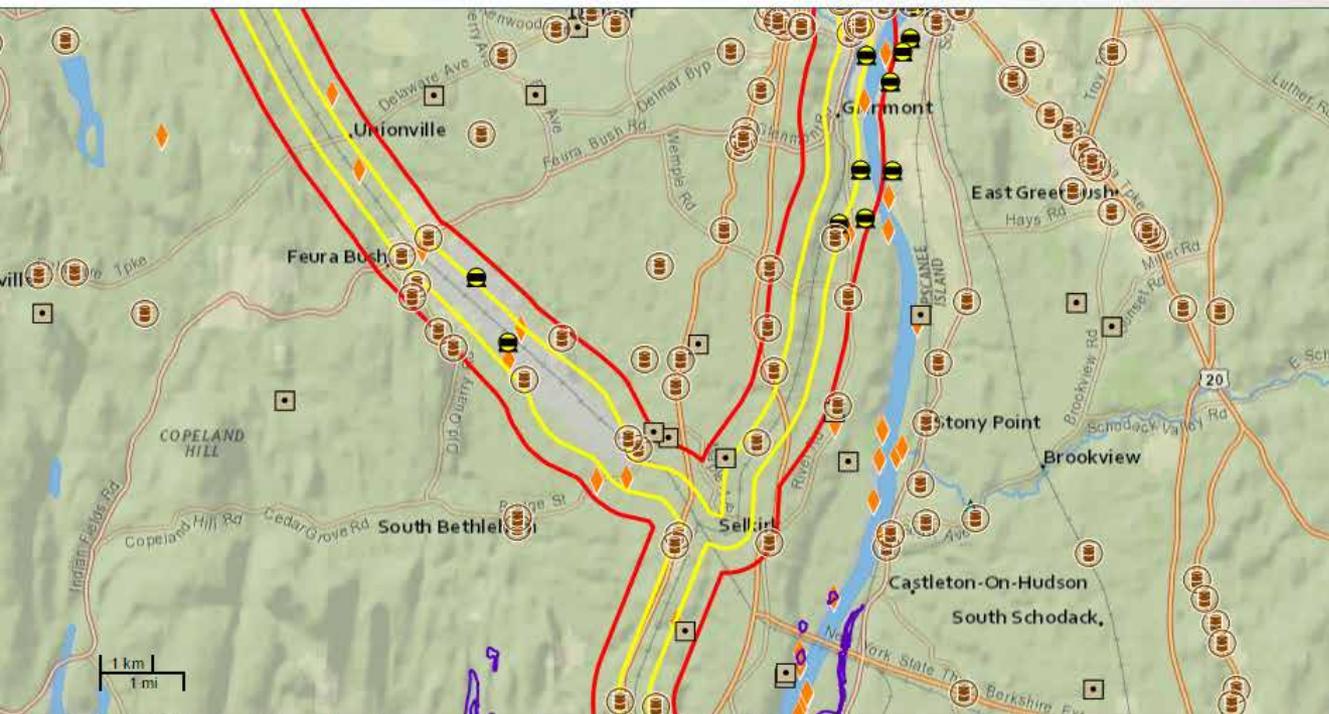
Human Use & Booming Strategies

ERMA® Environmental Response Management Application
Atlantic



Non-Rail & Booming Strategies

ERMA® Environmental Response Management Application
Atlantic



Albany County, NY GRPs

- Booming Strategies**
- ◆ Boom Strategies
- 1000' ERG Distance (Spills)**
- ~ 1000' Spill Buffer
- 0.5 Mile ERG Distance (Fires)**
- ~ 0.5 Mile Fire Buffer
- USGS Gauges**
- ▲ USGS Gauges
- Historical Sites**
- Historical Sites
- Major Oil Storage Facility (> 400,000 gals)**
- MOSF 400,000
- Petroleum Storage Facilities (>1,100 gals)**
- Petroleum Bulk 1,100 Gal
- FOAM Assets**
- FOAM Assets
- Bird Conservation Areas**
- Bird Conservation Areas
- Wetland / Aquatic Community**
- Wetland / Aquatic Community

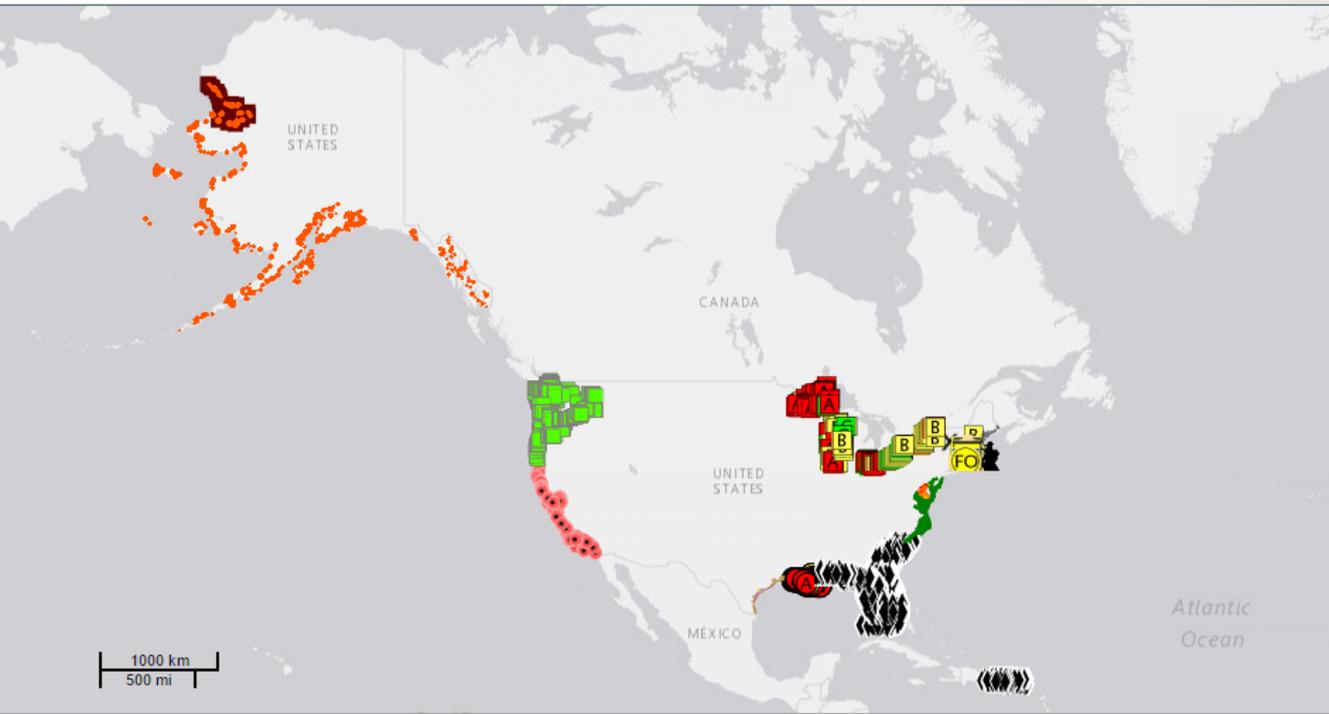
↑N Scale: 1 : 80K Zoom Level: 12 Location: 42.54564°, -73.66023°

Ongoing Inland Rail Work

- Add supporting metadata
- Finalize Bookmarks for quick access
- Final review of data
- Make appropriate data public

Coastal GRP Effort in ERMA

ERMA® Environmental Response Management Application
Atlantic



MSU Toledo

DRAFT-Priority Sites (last update 27-June-2016)

A A - Highest Protection Priority

Sector Lake Michigan

DRAFT - Priority Strategy Sites (updated 14-Mar-2017)

A A - Highest Protection Priority

B B - Protect after A Areas

C C - Protect after B Areas

MSU Duluth

DRAFT-Priority Sites (last updated 27-June-2016)

A A - Highest Protection Priority

B B - Protect after A Areas

C C - Protect after B Areas

Sector Detroit

DRAFT - Priority Strategy Sites (updated 14-Mar-2017)

A A - Highest Protection Priority

B B - Protect after A Areas

C C - Protect after B Areas

Sector Buffalo

DRAFT-Priority Sites (last updated 6-May-2016)

A A - Highest Protection Priority

B B - Protect after A Areas

C C - Protect after B Areas

Scale: 1 : 35M Zoom Level: 3 Location: 30.13607°,-39.52582°

Coastal GRP Effort in ERMA

USCG District	USCG Sector	In ERMA	Date (Creation/Update)
One	Northern New England	Yes	2014
	Boston	Yes	2016
	Southeastern New England	Yes	2016
	New Haven/New London CT	In Process	TBD
	New York	In Process	TBD
	Long Island Sound	In Process	TBD
Five	Maryland NCR	Yes	2016
	Delaware Bay	Yes	2016
	Hampton Roads	Yes	2011
	North Carolina	Yes	2016
Seven	Charleston	Yes	2015
	Jacksonville	Yes	2011
	Key West	Yes	2011
	Miami	Yes	2011
	San Juan	Yes	2011
	St. Petersburg	Yes	2011
Eight	Mobile	Yes	2011
	New Orleans	Yes	2015
	Corpus Christi	In Process	TBD
	Houston/Galveston	In Process	TBD
	Lower Mississippi River	---	NA
	Ohio Valley	---	NA
Nine	Upper Mississippi River	---	NA
	Buffalo	Yes	2016
	Detroit	Yes	2016
	Lake Michigan	Yes	2016
	Sault Sainte Marie	Yes	2016
Eleven	Humboldt Bay	Yes	2013
	San Francisco	Yes	2013
	Los Angeles/Long Beach	Yes	2013
	San Diego	Yes	2013
Thirteen	Puget Sound	Yes	2016
	Columbia River	Yes	2016
	North Bend	Yes	2016
Fourteen	Honolulu	---	NA
	Guam	Yes	2016
Seventeen	Anchorage	Yes	2014
	Juneau	Yes	2014

Standard Attributes

Arctic	WA/OR RRT	Pending WA/OR	CA/OSPR	TXGLO	SecNOLA	FWRI/District 7	Sector Boston (MA/ME-NH Geographic Response Strategy)	
Objectid	Gid	Strategy_ID	gid	objectid	gid	objectid	gid	gid
strategy id	grp planning	Strategy_Name	latdd	name	priority	site id	grp_link	id
strategy name	state	Strategy_Status	londd	link	priogisseg	spring protection priority	shape length	strategy
creation date	label	Strategy_DateTime	acp num	url	priogislab	summer protection priority	shape area	implement
author	latitude	Strategy_Priority	site num	x_coord	priopdfiab	fall protection priority	grp area c	location
description	longitude	Strategy_Type	site name	y_coord	sitename	winter protection priority	site num	town
response resources	boom length	Date	pri code	shape	alias	site description	site name	shape area
field survey date	strategy	GRP_Name	area photo	shape area	description	general location description	pdflink3	pdf_url
field deployment date	resource covered	Site_Access	google map	shape length	parish	sector		
shape	objective	Boat_Required	acp page		quadname	county		
shate.starea()	created date	Staging_Code			quadnumber	SCAT division		
shape.stlength()	modified date	Staging_ID			milemarker	managed area		
	created by	Staging_Name			managedyn	latitude (dd)		
	modifide by	Boom_Length			lat_dmslab	longitude (dd)		
	grp link	Boom_Type			lon_dmslab	latitude (dms)		
		Resource_Protected			strategy	longitude (dms)		
		Watercourse_Description			waterbtype	grp map number		
		Objective_Description			curwaveact	grp map name		
		Implementation_Description			waterbwid	esi map number		
		Equipment_Description			waterbodyopen	esi map name		
		Address_Num			safetyconc	noaa nautical chart number		
		Address_Dir			areaaccess	noaa nautical chart name		
		Address_Street			stagingarea	usgs quad number		
		Address_City			collection	usgs quad name		
		Address_Zip			esi_code	contact information		
		County			esi_description	contact information (cont)		
		State			rarccomment	shoreline type		
		Lat_DD			contact	shoreline type (cont)		
		Long_DD			contactsp	habitats		
		Marker			submitby	habitats (cont)		
		GRP_Link			submitdate	wildlife		
					statesubmi	wildlife (cont 2)		
					statecomment	wildlife (cont 3)		
					latitude	threatened/Endangered species		
					longitude	threatened/Endangered species		
					point_x	socio-economic resources at risk		
					point_y	socio-economic resources at risk		
					lat_dmscal	staging areas		
					lon_dmscal	collection points		
					priorsegnum	area access		
					parishabre	spill risks		
					dotnumber	response resources		
					pardotlabe	response resources (cont)		
					quadlabel	tidal range (feet)		
						average current velocity (knots)		
						minimum boom length (feet)		
						booming method		
						boom type		
						protection strategy		
						protection strategy (continued 2)		
						protection strategy (continued 3)		
						protection strategy (continued 4)		
						ease of protection		
						shape		
						subtype		
						state		
						signature		

GRP – Attributes	#
Arctic	12
WA/OR	31/15
CA/OSPR	10
TXGLO	9
SecNOLA	44
FWRI/D7	57
Sec Boston (MA)	8
ME/NH GRS	8

MAP/CHART SYMBOLOGY

ICS MAP/CHART DISPLAY SYMBOLOGY

Environmentally Sensitive Areas
Priority of Protection - Summer

- ◆◆◆ A - Protect First - Highest Priority
 - ◆◆ B - Protect after A Areas - Medium Priority
 - ◆ C - Protect after B Areas - Low Priority
 - ▲ D - Protect after C Areas - Lowest Priority
- LEC**
- ▲ Harbor Benthic
 - ▲ Intertidal
 - ▲ Open Water
 - Permanent
 - Staging Area
 - ▭ Command
 - ▲ Collection

- MINIMUM RECOMMENDED**
- BLACK**
 - Proposed Boom
 - Completed Boom
 - XXX Absorbent Material
 - RED**
 - 10 Aug ⊗ Hazard Origin
 - 1430
 - BLUE**
 - Incident Command Post
 - Ⓟ Incident Base
 - Ⓒ Camp (Identify by Name)
 - Ⓢ Staging Area (Identify by Name)
 - Ⓜ Joint Information Center
 - Helispot (Location & Number)
 - Ⓜ Helibase
 - Ⓡ Mobile Relay
 - OPTIONAL**
 - Ⓟ Police Station
 - Ⓣ Telephone
 - Ⓧ Fire Station
 - Ⓧ Mobile Weather Unit
 - Ⓜ Emergency Operations Center
 - Ⓜ Fire Aid Section
 - Ⓜ Hospital

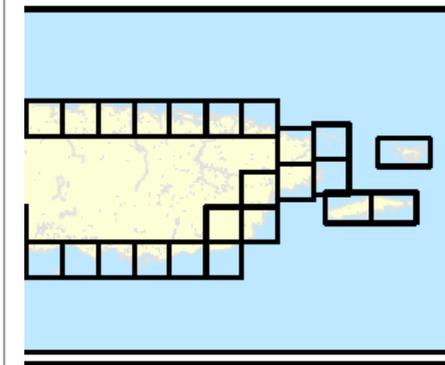
- ORANGE**
 - ▲ Oil Spread Prediction (5 hr, 4 hr, 3 hr, 2 hr, 1 hr)
- BLACK**
 - Actual Oil or Chemical Plume
- BLACK**
 - [I] [I] Branches (Initially numbered clockwise from incident origin)
 - (A) (B) Divisions (Initially lettered clockwise from incident origin)
 - Y Division Boundary
 - { } Branch Boundary
 - ↗ 1600 SW Wind Speed and Direction
- OPTIONAL**
 - 1 Safety/Security Zone
 - Ⓜ Boat Ramp

- BB Beach Berm
- CB Culvert Block
- DV Diversion Booming
- PR Passive Recovery

TO BE USED ON INCIDENT BRIEFING AND ACTION PLAN MAPS/CHARTS



US Coast Guard Sector San Juan | Fish and Wildlife Research Institute



Legend

- er Boom (Flood Tide)
- er Boom (Ebb Tide)
- nt Boom
- gy Developed by Other Agency

GRP Development

ERMA Environmental Response Management Application
Pacific Islands

Information Help Recent Data Admin Upload Incident Search Layers, Folders, and Bookmarks Geographic Search

Layers Legend Draw Query Tools Zoom Download Print Change Password Logout

Federal Agency Regions & Offices

- USCG Sectors
- USCG Sectors (2014)
- Booms
 - AH > Boom > B01-4-01
 - ▲ AH > Boom > B01-4-01
 - AH > Boom > B01-9-05
 - ▲ AH > Boom > B01-9-05
 - AH > Boom > B01-2-01
 - ▲ AH > Boom > B01-2-01
 - AH > Boom > B01-9-04
 - ▲ AH > Boom > B01-9-04
 - AH > Boom > B01-12-01
 - ▲ AH > Boom > B01-12-01
 - AH > Boom > B01-9-03
 - ▲ AH > Boom > B01-9-03
 - AH > Boom > B01-11-05
 - ▲ AH > Boom > B01-11-05
 - AH > Boom > B01-9-02
 - ▲ AH > Boom > B01-9-02
 - AH > Boom > B01-11-04
 - ▲ AH > Boom > B01-11-04
 - AH > Boom > B01-9-01
 - ▲ AH > Boom > B01-9-01
 - AH > Boom > B01-11-03
 - ▲ AH > Boom > B01-11-03
 - AH > Boom > B01-8-01
 - ▲ AH > Boom > B01-8-01
 - AH > Boom > B01-11-02
 - ▲ AH > Boom > B01-11-02
 - AH > Boom > B01-7-04
 - ▲ AH > Boom > B01-7-04

Scale: 1 : 26K Zoom Level: 14 Location: 13.45069°, 144.65258°

US DOC | NOAA | NDS | NOAA Office of Response & Restoration
Disclaimer | Privacy policy | Official Citation | Email comments

Coastal Response Research Center
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ERMA Tools & Development

Finding Data

ERMA | Environmental Response Management Application
Atlantic

Information | Help | Recent Data | Admin | Upload | Incident

Layers | Legend | Draw | Query Tools | Zoom | Download | Print

activate layer - **Bird**

- activate layer - Bird Habitat (NOAA ESI)
- activate layer - Bird Habitat, North Carolina (NOAA)
- activate layer - Bird Habitat, NY-NJ-CT-RI (NOAA)
- activate layer - Bird Habitat, South Carolina (NOAA)
- activate layer - Bird Habitat, VA (NOAA)
- activate layer - Bird Nests, Delaware Bay (NOAA)**
- activate layer - Bird Nests, DE - NJ - PA (ESI)
- activate layer - Bird Nests, MD (NOAA)
- activate layer - Bird Nests, NY-NJ-CT-RI (NOAA)
- activate layer - Bird Nests, VA (NOAA)
- activate layer - Delaware River Keepers Obsv Oiled Birds 24-Apr-12 at 1400hrs
- activate layer - New York Bird Conservation Point Locations (NYDEC)
- activate layer - New York Important Bird Areas (NYDEC)
- activate layer - New York Important Bird Point Locations (NYDEC)
- activate layer - New York Kings Bay Important Bird Area (NYDEC)
- activate layer - Oiled Bird Observation as of 1-17-14, 0700
- activate layer - south florida birds esi

Layers | Legend | Draw | Query Tools | Zoom | Download | Print

Background Layers

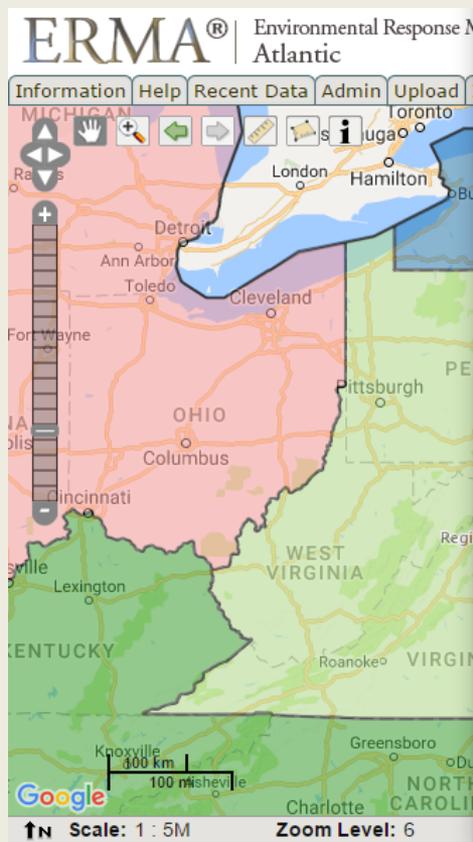
- Admin Boundaries & Reference Features
- Bathymetry & Hydrology
- Environmental Quality & Monitoring
- Marine Debris
- Imagery & Remote Sensing
- Natural Resources, Habitats, & Managed Areas
 - Coastal Resources & Habitats
 - Critical Habitat
 - Cultural Resources & Human Use
 - Essential Fish Habitat (NOAA EFH)
 - Environmental Vulnerability Index (Maine DEP)
 - Environmental Sensitivity Index (NOAA ESI)
 - ESI PDF Map Links
 - Seamless ESI PDF Maps for RI/NY/CT/NJ - 2001 (NOAA)
 - Seamless ESI PDF Maps for the Hudson River - 2006 (NOAA)
 - Seamless ESI PDF Maps for Long Island - 2009 (NOAA)
 - Seamless ESI PDF Maps for Delaware Bay - 2014 (NOAA)
 - Seamless ESI PDF Maps for Maryland - 2007 (NOAA)
 - Seamless ESI PDF Maps for Virginia - 2005 (NOAA)

Bookmark Views: new

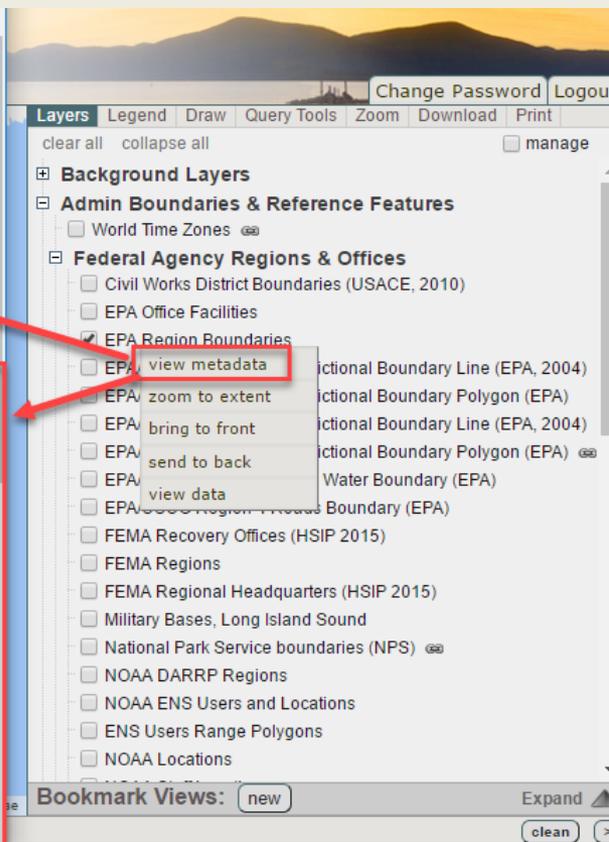
- My Views
 - ESI Example
 - Florida GRP
 - NESDIS Examples
- Shared Views
 - Biological Assessment
 - default
 - Green Canyon Incident
 - Gulf of Mexico Area of Interest Weather (real-time)
 - Gulf of Mexico ESIs
 - Gulf of Mexico GAPS Analysis & Longterm Monitoring

Scale: 1:5M | Zoom Level: 6 | Location: 45.44249°, -83.63681°

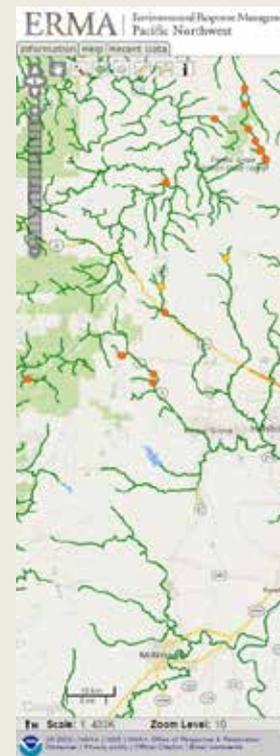
Metadata



Parent Folder: Admin Boundaries & Reference Features>Federal Agency Regions & Offices
Layer Name: EPA Region Boundaries
Layer Sensitivity: Public
Sites: All
Full Metadata: [metadata](#)
ERMA WMS Capabilities: <https://erma.noaa.gov/maps/wms/17884?request=getCapabilities&service=WMS>
Last Modified: 2016-12-09 19:09:20-05
Last Modified By: Bodnar, Jill (NOAA/ORR, Genwest)
Shapefile: Environmental_Protection_Agency_EPA_Regions
Date Uploaded: 8/25/2016 1:43 pm
Uploaded By: Eckhardt, Nicolas (NOAA)
Geometry: POLYGON
Additional Information:
Abstract: This dataset represents delineated EPA Region boundaries. EPA has ten regional offices across the country, each of which is responsible for several states and in some cases, territories or special environmental programs. This Shared Enterprise Geodata and Services (SEGS) dataset was created by U.S. EPA using 2011 TIGER/Line state boundaries from the U.S. Census Bureau. The core mission of SEGS is to provide a single point of ownership for geospatial datasets that are national in extent and of general use to all EPA users and to make those datasets available through channels that best meet user needs.
Purpose: This dataset represents delineated EPA Region boundaries.
Description: This dataset represents delineated EPA Region boundaries. EPA has ten regional offices across the country, each of which is responsible for several states and in some cases, territories or special environmental programs.
 This Shared Enterprise Geodata and Services (SEGS) dataset was created by U.S. EPA using 2011 TIGER/Line state boundaries from the U.S. Census Bureau. The core



Data Queries in ERMA



ERMA | Environmental Response Management Application
Pacific Northwest

Search Layers: "Priority Oregon Fish Passage Barriers" (selected)

Query Tools

Step 1: Create and Edit Shapes:
Create shapes by selecting the Create Polygon button. Draw from the map to set starting and finish. Double click OR press any key to end drawing.

Buttons: Create Polygon, Delete Selected, Delete All

Step 2: Select a Query Tool:
Please select at least one shape to run the query tool. Select with left mouse click, multiple objects hold down shift, remove selected item: control. (Blue polygons are selected, yellow are unselected).

ERMA Layer Query by Polygon tool

Query Layers by Polygon Result

Results Summary | Layer 12371 | Layer 12399

Priority Oregon Fish Passage Barriers, (ODFW 2013) (Metadata)

Query Layers by Polygon Results

Results Summary | Layer 12371 | Layer 12399

Priority Oregon Fish Passage Barriers, (ODFW 2013) (Metadata)

You may drag column headings to reorder them, or click on the arrow (↑) to sort by a column.

Showing 1 to 21 of 21 records

Buttons: Show 100 records, Search all columns, First, Previous, Next, Last

Buttons: Reset all filters, View Tutorial

Selected Layer: 12371 (selected) | 12399

Selected Range: 0-75 | 75-150 | 150-225 | 225-300 | 300-375 | 375-450 | 450-525 | 525-600 | 600-675 | 675-750 | 750-825 | 825-900 | 900-975 | 975-1050 | 1050-1125 | 1125-1200 | 1200-1275 | 1275-1350 | 1350-1425 | 1425-1500

objectid	epbshid	epbshidc	epbrevnt	epbshurl	epbname	epbshwid	epbshlenc	epbsharea	epbshcode	epbshrtty	epbshnum	epbshvntd	epbshrtfr	epbshstus
13	4133	4531	2012-09-26	842	ODFW	842	FieldQual	130	1998090	Culvert	Sevier Creek Tributary at Mouth of Rd A South St	unknown	Partial	
18	4158	4558	2012-09-20	840	ODFW	840	DipNet	40	20081210	Culvert	Sevier Creek Tributary at Mouth of Rd A South St	unknown	Partial	
47	7587	7587	2012-09-20	843	ODFW	843	DipNet	40	1998090	Culvert	Unnamed culvert	unknown	Partial	
70	38222	38222	2011-12-08	50330	ODFW	55129	UNKNOWN	9999	0000000	Unknown Barrier	Unnamed barrier	no	UNKNOWN	
87	11728	11728	2009-05-17	1889	ODFW	1804	FieldQual	150	1998090	Culvert	Unnamed culvert	unknown	Partial	
87	4173	4173	2012-09-20	83918	ODFW	83918	UNKNOWN	9999	0000000	Bar	Unnamed bar	no	Partial	

Search all columns

First | Previous | Next | Last

epbshname	epbshwid	epbshrtty	epbshnum	epbshvntd	epbshrtfr	epbshstus
Sevier Creek Tributary at Mouth of Rd A South St	1998090	Culvert	130	unknown	Partial	Partial
Sevier Creek Tributary at Mouth of Rd A South St	20081210	Culvert	40	unknown	Partial	Partial
Unnamed culvert	1998090	Culvert	40	unknown	Partial	Partial
Unnamed barrier	0000000	Unknown Barrier	9999	no	UNKNOWN	UNKNOWN
Unnamed culvert	1998090	Culvert	150	unknown	Partial	Partial
Unnamed bar	0000000	Bar	9999	no	Partial	Partial

Environmental Sensitivity Index Query Tool

https://www.ema.unh.edu/northwest/erma_esi.html - Google Chrome

http://www.ema.unh.edu/northwest/erma_esi.html



Environmental Sensitivity Index: Resources at Risk

Background and Instructions

Species listed in **Red** are either listed as Threatened (T) or Endangered (E) by the State (S) or Federal government (F)

Notes: Click on column headers to sort rows; hover or click on species link to get more information.

Summary Results

AOI total area: 84447 acres

Puget Sound Bird Habitat

9 unique species: Caspian tern, Cormorant, Gulls, Harlequin duck, Pacific loon, Pigeon guillemot, Rhinoceros auklet, Scoters, Waterfowl

Puget Sound Fish Habitat

Selected 1 features

Puget Sound Shoreline Classification (lines)

Summary Length (miles) by type:

- 5: Mixed sand and gravel beaches: 34
- 7: Exposed tidal flats: 15
- 6A: Gravel beaches: 4
- 6B: Gravel beaches and riprap: 3
- 8C: Sheltered riprap: 2
- 4: Coarse-grained sand beaches: 1
- 9A: Sheltered tidal flats: 1
- 1B: Exposed, solid man-made structures: 0.5
- 10A: Salt and brackish-water marshes: 0.1

Puget Sound Shoreline Classification (poly)

Summary Area (acres) by type:

- 7: Exposed tidal flats: 890184
- 9A: Sheltered tidal flats: 69903



Layers Legend Query Tools AOI Labels Zoom Download Print Logout

ESI Table Tool

Puget Sound ESI	
Biological	Other
<input checked="" type="checkbox"/> Bird Habitat	<input checked="" type="checkbox"/> Shoreline Classification (lines)
<input checked="" type="checkbox"/> Fish Lines	<input checked="" type="checkbox"/> Shoreline Classification (poly)
<input checked="" type="checkbox"/> Fish Habitat	<input type="checkbox"/> ESI Index Grid
<input type="checkbox"/> Vegetation Habitat Lines	<input type="checkbox"/> Management Areas
<input type="checkbox"/> Vegetation Habitats	<input type="checkbox"/> Socioeconomic (line)
<input type="checkbox"/> Invertebrates	<input type="checkbox"/> Socioeconomic (point)
<input type="checkbox"/> Marine Mammal Points	
<input type="checkbox"/> Nests	

Months of Interest

J F M A M J J A S O N D

Report Area Intersection Summary

Coastal Response Research Center
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F&WS IPaC Query Tool

IPaC Information for Planning and Conservation

U.S. Fish & Wildlife Service

on)

My project Antrim a

OVERVIEW RESOURCES DES

This project potentially

IPaC Informati

OVERVIEW RES



Endangered

Er
Prop
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local
Bir

Endangere

Proposed, candidate,
Program of the U.S. F

The list of species bel
location:

Birds



Kirtla
Enda



Pipin
Enda



Red t
Thre:

Google

TN Scal



U.S. Fish & Wildlife Service

IPaC Trust Resources Report

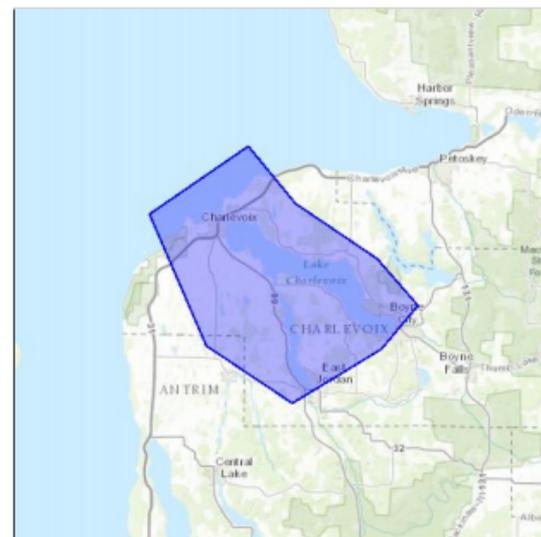


LOCATION

Antrim and Charlevoix counties,
Michigan

IPAC LINK

<https://ecos.fws.gov/ipac/project/HTTQQ-VWT7F-F25JL-V3YWB-KIZLCM>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

East Lansing Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

New ERMA Tools - Select Records

Risk Management Plan Facilities (EPA) (RMP as of 01-01-2017) (Metadata)

You may drag column headings to reorder them, or click on the arrows (↕) to sort by a column.

Showing 1 to 100 of 543 records

Show 100 entries

Search all columns:

16/19 Columns Shown Enable advanced filters Add to Map

First Previous 1 2 3 4 5 Next Last

epafacilit	facilityid	name	street	street2	city	state	zip	url	facphone	emergpocph	emergpocpi
<input type="text" value="Search epafacilit"/>	<input type="text" value="Search facility"/>	<input type="text" value="Search name"/>	<input type="text" value="Search street"/>	<input type="text" value="Search str"/>	<input type="text" value="Search city"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search url"/>	<input type="text" value="Search facph"/>	<input type="text" value="Search emergp"/>	<input type="text" value="Search emergp"/>
100000211914	1000015256	Ultra Dairy, LLC	6750 West Benedict Road		East Syracuse	NY	13057		0	3154348807	110
100000119999	1000020237	Aguadilla Nueva Filtration Plant	Carr. 459, Km 0.3		Aguadilla	PR	603	acueductospr.com	7878913796	7874064727	
100000119999	1000020237	Aguadilla Nueva Filtration Plant	Carr. 459, Km 0.3		Aguadilla	PR	603	acueductospr.com	7878913796	7874064727	
100000208027	1000021399	Slack Chemical Co., Inc	21 Grande Blvd.		Saratoga Springs	NY	12866	www.slackchem.com	8004790439	5184234316	
100000179228	1000022342	Upstate Niagara Cooperative, Inc.	1730 Dale Road		Buffalo	NY	14225	www.upstatefarms.com	7168922121	7168923156	
100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871		0	9733837869	
100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871		0	9733837869	
100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871		0	9733837869	
100000135524	1000022659	Diversified CPC International, Inc.	189 Houses Corner Rd		Sparta	NJ	7871		0	9733837869	

View Data Table

The screenshot displays a web application interface with a data table and a layers panel. The data table shows 10 rows of information, including Gid, Eparegion, Shape Leng, and Shape Area. A red box highlights the button 'Add Selected Features To Query Tab (Polygons Only)'. The layers panel on the right shows a list of layers, with a context menu open over the 'EPA/USC Regional Boundary (EPA)' layer, and a red arrow pointing to the 'view data' option.

Gid	Eparegion	Shape Leng	Shape Area
8	Region 1	33.1062409269	20.9704685964
9	Region 10	298.864966082	389.031090040
1	Region 2	40.5184949742	19.3073347963
2	Region 3	32.8372888460	34.5595080424
3	Region 4	78.6437752010	99.1211322394
4	Region 5	70.7642753460	112.219890056
5	Region 6	81.3295536077	141.339985022
6	Region 7	51.4167678848	78.0912302395
7	Region 8	83.6608796568	168.483083619
10	Region 9	91.0052400122	105.086826291

Showing 10 of 10 Rows

Add Selected Features To Query Tab (Polygons Only)

Displaying 4 of 4 Fields

gid x eparegion x shape_leng x shape_area x

Click in the box to select additional fields to display, click on the x next to a displayed field to suppress its display. Once displayed, you may drag the table

Layers Legend Draw Query Tools Zoom Download Print

clear all collapse all manage

Background Layers

Admin Boundaries & Reference Features

World Time Zones

Federal Agency Regions & Offices

- Civil Works District Boundaries (USACE, 2010)
- EPA Office Facilities
- EPA Region Boundaries
 - view metadata
 - zoom to extent
 - bring to front
 - send to back
 - view data
- EPA/USC Regional Boundary (EPA)
- EPA/USC Regional Boundary (EPA)
- EPA/USC Regional Boundary (EPA)
- FEMA Recovery Offices (HSIP 2015)
- FEMA Regions
- FEMA Regional Headquarters (HSIP 2015)
- Military Bases, Long Island Sound
- National Park Service boundaries (NPS)
- NOAA DARRP Regions
- NOAA ENS Users and Locations
- ENS Users Range Polygons
- NOAA Locations

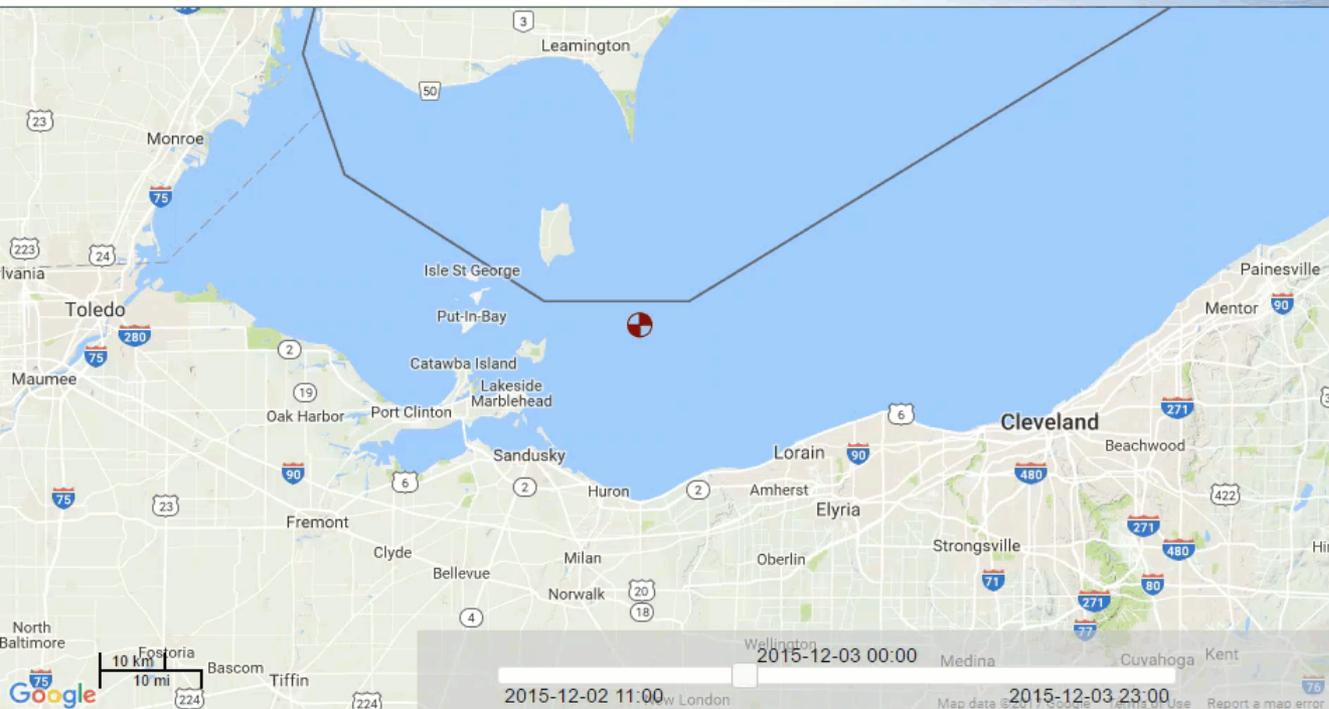
Bookmark Views: new Expand clean

US DOC | NOAA | NOS | NOAA Office of Response & Restoration
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New ERMA Tools: Time Slider (Internal Data)

ERMA® Environmental Response Management Application
Great Lakes



Potential Surface Trajectories created 12/01/15

Argo Potential Surface Trajectories, 0-36 hrs starting 12/02

- Dec 2
- Dec 3
- Dec 4

Tank Barge Argo, Lake Erie (16-Oct-2015)

Tank Barge Argo, Western Lake Erie, OH (NOAA)

🚢 Tank Barge Argo, Western Lake Erie, OH

Scale: 1 : 649K Zoom Level: 9 Location: 41.84464°,-81.14494°

New ERMA Tools – Time Slider (External Data)

ERMA® Environmental Response Management Application
Atlantic

Information Help Recent Data Admin Upload Incident Search Layers, Folders, and Bookmarks Geographic Search Change Password Logout

Layers Legend Draw Query Tools Zoom Download Print

New York and New Jersey Operational Forecast System (NYOFS)
Surface Water Currents w/Water Level (NOAA)

ft
-4 -3 -2 -1 -0.5 0 0.5 1 1.5 2 2.5 3
ft
-4 -3 -2 -1 -0.5 0 0.5 1 1.5 2 2.5 3
Thu 2017-04-13 18:00 UTC

2017-04-12 02:00
2017-04-11 14:00 2017-04-13 14:00

Scale: 1 : 329K Zoom Level: 10 Location: 40.76847°,-74.17945°

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New ERMA Tools – Webcams

ERMA® Environmental Response Management Application
Atlantic

Information Help Recent Data Admin Upload Incident Search Layers, Folders, and Bookmarks Geographic Search Change Password Logout

Layers Legend Draw Query Tools Zoom Download Print manage

- Blank
- Admin Boundaries & Reference Features
- Bathymetry & Hydrology
- Environmental Quality & Monitoring
- Marine Debris
- Imagery & Remote Sensing
 - GOES Imagery
 - NESDIS Marine Pollution Surveillance Reports
 - New York Harbor Web Cams
 - Sector NY Webcams, Arthur Kill Views (USCG)
 - Sector NY Webcams, Kill Van Kull Views (USCG)
 - Sector NY Webcams, Lower Bay Views (USCG)
 - Sector NY Webcams, East River Views (USCG)
 - Sector NY Webcams, Upper Bay Views (USCG)
 - Sector NY Webcams, Manhattan Views (USCG)
 - ESI Imagery - Northeast States (NOAA)
 - RGB Aerial Imagery (NOAA)
 - CIR Aerial Imagery (NOAA)
 - RGBN Aerial Imagery (NOAA)
 - USGS Orthoimagery 1 Foot Scale
 - NAIP 2009 Vermont Imagery (VCGI)
 - Connecticut 2012 Ortho Imagery

Bookmark Views: new Expand

Scale: 1 : 329K Zoom Level: 10 Location: 40.63030°,-74.20916°

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New ERMA Tools – Draw

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Layers Legend Draw Query Tools Zoom Download Print

View Existing Drawings New Drawing

My Drawings + Shared Drawings ▾

Show only drawings in the atlantic region

Search - * and ? wildcards may be used

Displaying 6 drawings

Share...	Name	Region
<input checked="" type="checkbox"/>	TS Colin Tuesday June 7 AOI	atlantic
<input checked="" type="checkbox"/>	GRP01-Cleveland Lakefront (Bound...	greatlak...
<input checked="" type="checkbox"/>	GRP01-PS-001	greatlak...
<input checked="" type="checkbox"/>	GRP01-BR-001	greatlak...
<input checked="" type="checkbox"/>	GRP01-Staging Areas	greatlak...

Scale: 1 : 5M Zoom Level: 6 Location: 41.99938°, -71.28779°

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GRP Drawings

Create New Drawing Cancel View Drawings

Step 1: Name & Describe your drawing
Name:
Description:

Step 2: Choose the type of drawing

Step 3: Choose a drawing profile

Step 4: Label, name attributes, and enter attributes
Hide Field Names Show Label Settings

Attribute Fields

Attribute Name (pre-set)
Attribute Name (pre-set) (auto) 
Attribute Name (pre-set) (auto) 

Add Attribute

Drawing Color

Size

Step 5: Create (or modify) a drawing feature
Choose a tool and click on the map, or enter latitude and longitude values to create points. Each feature can contain multiple points.

Latitude: Longitude:

Click on a row to edit a feature. Display all on map

Label
1 Demo 

Step 6: Label and set attribute values

New ERMA Tools – Draw

ERMA® Environmental Response Management Application
Atlantic

Information Help Recent Data Admin Upload Incident Search Layers, Folders, and Bookmarks Geographic Search Change Password Logout

Layers Legend Draw Query Tools Zoom Download Print

Search - * and ? wildcards may be used

Displaying 222 drawings

Share...	Name	Region
<input checked="" type="checkbox"/>	Beach Protection	atlantic
<input type="checkbox"/>	print test	gulfof...
<input checked="" type="checkbox"/>	DiveEX Side Scan Sonar	pacific
<input checked="" type="checkbox"/>	Center Line	pacific
<input checked="" type="checkbox"/>	Golden Gardens - SDB Sampling Event	northwest

zoom to extent edit copy delete **unshare** add to layers tab

Name: Beach Protection
 Creator: Jill Bodnar
 Description: Area of high priority
 Profile Name: Drawing
 Create Date: Feb 21, 2017 1:13:02 PM
Layers: 33345

Scale: 1 : 172K Zoom Level: 11 Location: 37.62616°,-76.14121°

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Interoperability and Data Sharing

- Data sharing plans
- Data download
- Attachments
- Map services
- Redirect to authoritative source
- Secure map services
- Third party applications
 - API
 - DIVER

Data Download (If allowed)

The screenshot displays the ERMA Atlantic web application interface. At the top left, the logo reads "ERMA® Environmental Response Management Application Atlantic". A navigation menu includes "Information", "Help", "Recent Data", "Admin", "Upload", and "Incident". A search bar is labeled "Search Layers, Folders, and Bookmarks". The main area is a map of the New England coast, showing cities like Hartford, New Britain, Middletown, and New Haven. A red box highlights the "Download" button in the top right corner of the map area. To the right of the map is a panel with the following text:

Layers Legend Draw Query Tools **Download** Print Zoom

Not all ERMA data are available for download. Many sources are outside links to data that are not in our database and others may not be releasable. In all cases, ERMA data downloads are non-authoritative and we recommend that data be downloaded from the original source. Whenever possible, links to the original data are available in the full metadata record.

The following layers are not able to be downloaded at this time.

- Esri: Esri National Geographic
- Google: Google Terrain

Download the following layers:

- Coastal Resources & Habitats: Significant Coastal Fish and Wildlife Boundaries

Download Shape Files

At the bottom of the map area, it shows "Scale: 1 : 652K", "Zoom Level: 9", and "Location: 41.36936°,-72.42018°". The footer contains the NOAA logo and text: "US DOC | NOAA | NOS | NOAA Office of Response & Restoration", "Disclaimer | Privacy policy | Official Citation | Contact", and "Coastal Response Research Center ©2007 - 2017 University of New Hampshire".

Map Services (Unrestricted)

ERMA® Environmental Response Management Application
Atlantic

Information Help Recent Data Admin Upload Incident Search Layers, Folders, and Bookmarks Geographic Search Change Password Logout

ERMA - Google Chrome
Secure | https://erma.noaa.gov/ERMA/metadata?sitename=atlantic&layer_id=33470

Parent Folder: Natural Resources, Habitats, & Managed Areas>Environmental Sensitivity Index (NOAA ESI)>Long Island Sound (NOAA ESI 2016)
Layer Name: Shoreline Classification (lines), Long Island Sound (NOAA)
Layer Sensitivity: Public

ERMA WMS Capabilities: <https://erma.noaa.gov/maps/wms-p/33470?request=getCapabilities&service=WMS>

Last Modified: 2017-02-22 08:09:26-05
Last Modified By: Wright, Robb (NOAA/NOS/OR&R)
Layer Extent: -180.0,-89.99999,180.0,89.99999
Server Last Checked Up: 2017-04-10 11:11:55-04
Server Last Checked Down: 2016-11-30 14:01:17-05
Service Last Checked Up: 2017-04-07 20:30:41-04

Layers Legend Draw Query Tools Download Print Zoom
clear all collapse all manage

- Essential Fish Habitat (NOAA EFH)
- Environmental Sensitivity Index (NOAA ESI)
 - Seamless ESI PDF Maps for RI/NY/CT/NJ - 2001 (NOAA)
 - Seamless ESI PDF Maps for Delaware Bay - 2014 (NOAA)
- Chesapeake Bay (NOAA ESI 2016)
- Connecticut, Rhode Island, New York, New Jersey (NOAA ESI 2001)
- Delaware Bay (NOAA ESI 2014)
- Georgia (NOAA ESI 2015)
- Long Island Sound (NOAA ESI 2016)
 - Benthic Habitats, Long Island Sound (NOAA)
 - Bird Habitat, Long Island Sound (NOAA)
 - ESI Area of Interest, Long Island Sound (NOAA)
 - Shoreline Classification (lines), Long Island Sound (NOAA)
 - Shoreline Classification (poly), Long Island Sound (NOAA)
 - Fish Habitat, Long Island Sound (NOAA)
 - Vegetation Habitats, Long Island Sound (NOAA)
 - Hydrology Lines, Long Island Sound (NOAA)
 - Hydrology, Long Island Sound (NOAA)
 - ESI Bio Index Grid, Long Island Sound (NOAA)
 - ESI Human Use Index Grid, Long Island Sound (NOAA)
 - Invertebrates, Long Island Sound (NOAA)

Bookmark Views: new Expand

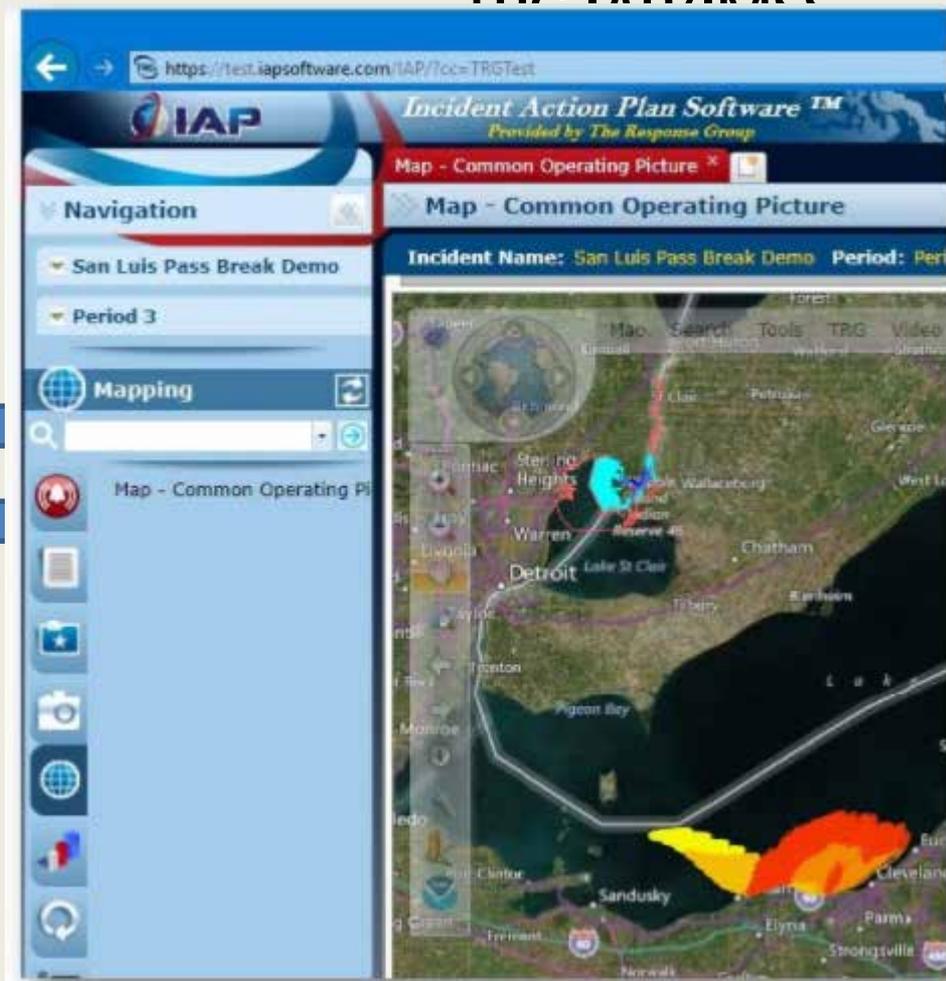
Scale: 1 : 652K Zoom Level: 9 Location: 40.92469°,-72.46687°

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ERMA COP Interoperability & Standards

TRG IAP/IMACC



NEW Feature:
Secure Electronic Data Sharing

Shell, ArcGIS Online



Manage Access Tokens

Displaying 5 Tokens

+ Add Access Token

Access Token	Valid Until	Created By	
6adfa5f303e540676f...	Oct 07, 2016	Michael Greer	
bba6f6d3b68847deb...	Feb 28, 2018	Robb Wright	
9b3b147e69a54130...	Aug 26, 2017	Jay Coady	
353b060a70e6481e...	Jun 08, 2017	Robb Wright	
cc51049f0cbb49e59...	Jan 05, 2018	Robb Wright	

Click on a row to review or modify a token, or the to remove a token.

Created By Robb Wright
Date Created Jun 17, 2016 8:45:32 AM
Modified By Jay Coady
Last Modified Jan 20, 2017 11:41:42 AM

Edit Token Details

Token ID

cc51049f0cbb49e598b561dd008b302

In order to use a token, it must be added to all requests for service data, using the token=" key. Tokens are only recognized when the request originates from one of the authorized IP addresses associated with the token.

Notes

Token test for TRG to test responder and archive layers.
 Including TRG's system IP: 50.201.199.122
 TRG's proxy IP: 50.201.199.169
 and Robb's telework IP: 108.48.101.248

Notes are required to identify the responsible party for using the token, as well as any details regarding the justification for granting the token (maximum length is 5 characters.)

Expiration Date

2018-01-05

This token will no longer be recognized after the expiration date. All tokens must expire within 1 year.

Authorized Layers

Layer	Layer Name	
14432	Argo Potential Surface Trajectories, 0-72 hrs starting 11/13	

Tokens may be granted access to specific layers, in which case no other privileges need to be assigned to access those layers.

Token Privileges

Event	Sensitivity	Site	
Chevron Refinery DRIE 2017	Responders	southwest	

Tokens must have permissions assigned to them in order to access non-public layers without an explicit grant (Authorized Layers.) Tokens automatically inherit all the default privileges of the public user.

Token Visibilities

Visibility	Site	
------------	------	--

In order for a token to access a layer with an assigned visibility, the token must be granted that right, or the layer must be assigned to the token explicitly (Authorized Layers.)

Allowed Hosts (by IP)

IP Address	
50.201.199.122	
108.48.101.248	
50.201.199.169	

Tokens may be created without IP addresses, but such tokens will not be usable until one or more IP address is added.

Reset

+ Update Token



Secure Data Sharing

Manage Third Party Applications

Displaying 4 Applications

+ Add Application

Access Token	
DWH Layer Mover	
DIVER	
update_ATD15_UAS	
ERMA Scrubber	

Click on a row to review details for an application or the to de-authorize an application.

Third Party Applications

New Application Details

Application Name

The application name is the name presented when ERMA asks the user to authorized the application.

Application ID

Applications must provide their Application Identifier with each request they make.

Application Signing Key

Applications must sign all requests they make using their application key. The Application Key should be treated as a sensitive piece of data, and not exchanged/provided via any means of communication that may be visible to third parties (such as via email, or chat clients).

Notes

Notes are required to identify the responsible party for the application, as well as any details regarding the justification for granting the application access to ERMA (minimum length is 5 characters.)

Expiration Date

Application tokens may be valid for up to 1 year, after which access will automatically be disabled. Updating the expiration date will extend the life of the application keys.

Allowed Hosts (by IP)

IP Address	

Setting the IP addresses increases application security by preventing the application keys from being usable outside of recognized addresses. Applications may be created without IP addresses, but the practice of doing so is discouraged, as it may diminish the security of the application.

Reset

+ Create Application

And at Last.....

Where are we heading?

Software Updates & Polar

ERMA® Environmental Response Management Application
Arctic

Information Help Recent Data Admin Upload Search Layers, Folders, and Bookmarks Geographic Search Change Password Logout

Layers Legend Query Tools Download Draw Zoom manage

- Background Layers
 - Polar Projections
 - GINA Imagery Polar Basemap
 - Arctic Connect Basemap (Alaska South)
 - Admin Boundaries & Reference Features
 - Bathymetry & Hydrology
 - Environmental Quality & Monitoring
 - Marine Debris
 - Imagery & Remote Sensing
 - Natural Resources, Habitats, & Managed Areas
 - Navigation & Marine Infrastructure
 - Arctic Shipping Routes (NGA)
 - Coastal Maintained Channels in U.S. Waters (USACE)
 - OCS Planned Survey Areas (NOAA)
 - Canada
 - Marine Infrastructure
 - NOAA Navigation Charts
 - Vessel Locations
 - Projected Northwest Passage Track (USCG, 2016)
 - NAIS Equipped Vessels
 - NAIS - All Vessels (last 8 hours)
 - Vessel Traffic Zones & Shipping Lanes

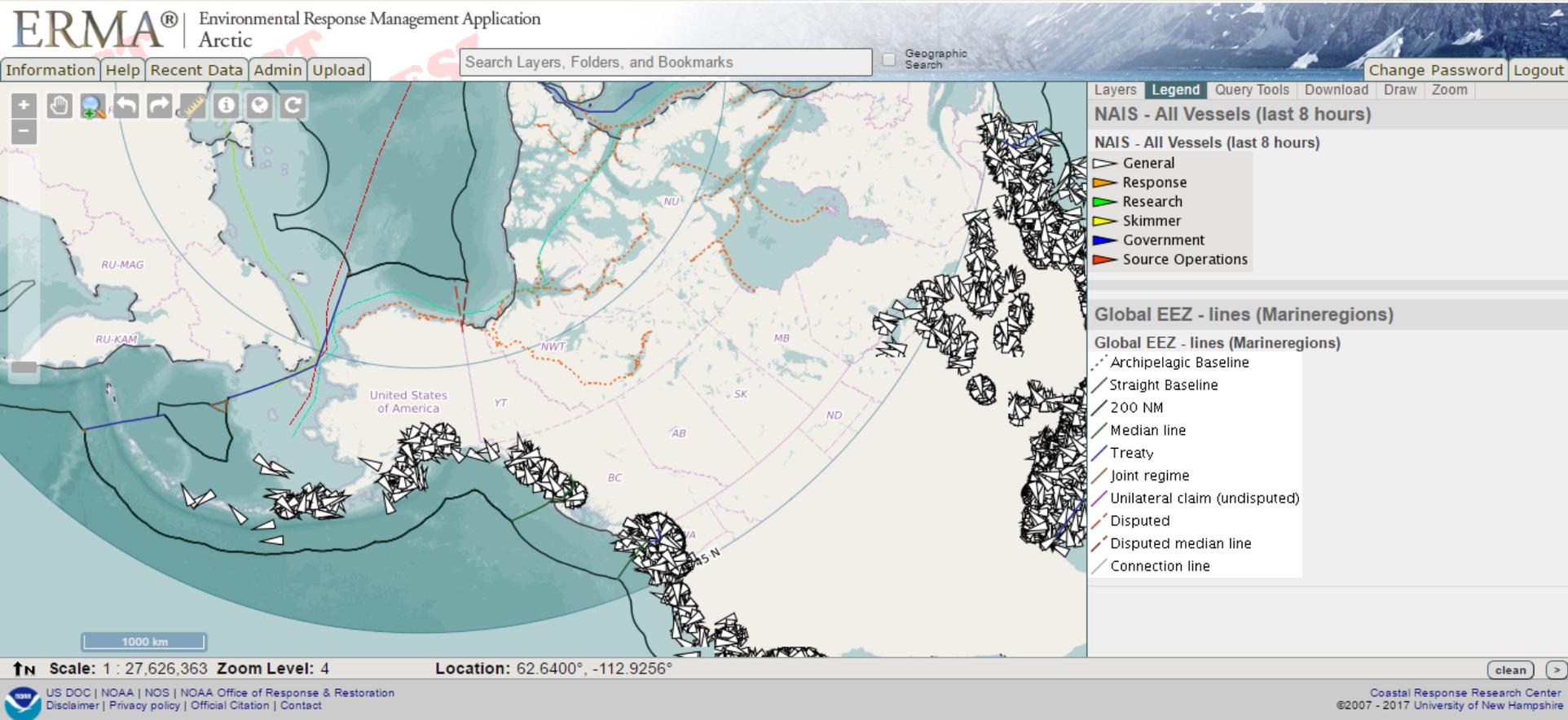
Bookmark Views: new Expand clean

Scale: 1 : 55,159,686 Zoom Level: 3 Location: 79.5441°, -24.0445°

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Polar Projections & Data



Polar vs. Mercator

ERMA® Environmental Response Management Application
Arctic

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Layers Legend Query Tools Download Draw Zoom

clear all collapse all manage

- Polar Projections**
 - Arctic Connect Basemap (Canada South)
 - Arctic Connect Basemap (Canada South) old
- Admin Boundaries & Reference Features**
 - Esri Arctic Polar Reference Map
 - World Time Zones
- Federal Agency Regions & Offices**
- Geopolitical Boundaries**
- Place Names and References**
- Grids & Graticules**
- Managed Areas**
- Land Management & Ownership**
- Marine Jurisdictions**
 - Canadian Marine Jurisdictions (NRCan, 2008)
 - Global EEZ - lines (Marineregions)
 - U.S. / Canadian Arctic Icebreaker Zones (GC DFO)
 - U.S. Maritime Zones & Boundaries (NOAA)
 - U.S. Marine Jurisdictions (NOAA)
 - United States Exclusive Economic Zone (NOAA)
- Bathymetry & Hydrology**
- Environmental Quality & Monitoring**
- Marine Debris**

Bookmark Views: new Expand

Scale: 1 : 55,167,835 Zoom Level: 3 Location: 60.6640°, -81.2621°

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Please Visit Our ERMA Regional Sites [Response.restoration.noaa.gov/ERMA](https://response.restoration.noaa.gov/ERMA)

U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Ocean Service

Search



Office of Response and Restoration

Home Oil and Chemical Spills Environmental Restoration Marine Debris Training and Education Multimedia About

Environmental Response Management Application (ERMA)

ERMA[®] is an online mapping tool that integrates both static and real-time data, such as [Environmental Sensitivity Index \(ESI\) maps](#), ship locations, weather, and ocean currents, in a centralized, easy-to-use format for environmental responders and decision makers.

ERMA enables a user to quickly and securely upload, manipulate, export, and display spatial data in a Geographic Information System (GIS) map.

Developed by NOAA and the [University of New Hampshire](#) with the U.S. Environmental Protection Agency, U.S. Coast Guard, and the Department of Interior, ERMA provides environmental resource managers with the data necessary to make informed decisions for environmental response.



Here, ERMA displays sampling locations in the Gulf of Mexico for the NOAA Mussel Watch Program, which monitored contaminant levels from mussels before and after the Macondo well blow-out in 2010 (well site shown in yellow). Source: NOAA.

Arctic ERMA

Find out how NOAA is helping the Arctic region prepare for climate change and possible oil spills using ERMA

Atlantic ERMA

In the fall of 2012, Atlantic ERMA was employed as the Common Operational Picture for the U.S. Coast Guard's pollution response to Post-Tropical Cyclone

On Our Radar

Oiled Oregon Streams Get Fish-Friendly Makeover



Watching Chemical Dispersants at Work

