

U.S. EPA STATE MAPPING PROJECTS



Jon Gulch, OSC
Ohio Mapping Lead

Tricia Edwards, OSC
Michigan Mapping Lead

Jason Sewell, OSC
Indiana Mapping Lead

Jacob Hassan, OSC
Illinois Mapping Lead

Rob Kondreck, OSC
Wisconsin Mapping Lead

David Morrison, OSC
Minnesota Mapping Lead

Brian Cooper
GIS Lead

Matt Blaser
GIS Assistant



EPA MAPPING PROJECT - DEFINITION

- The individual EPA State Mapping Projects are Geographical Information System (GIS) environmental emergency response tool that brings public (Federal, State and local) and private sector emergency responders together for spill response and pre-planning.
- During an emergency response, Federal and State On-Scene Coordinators (OSCs) use the project to gain situational awareness of downstream/downwind vulnerabilities, as well as upstream/upwind potential responsible parties.
- For contingency planning, the project can introduce facilities to the communities which may be impacted during a hazardous materials and/or petroleum release.
- The program can also be used during exercises of facility response plans by providing participants access to response layers such as: endangered/protected species and habitats; sanitary and storm sewer systems; facility discharge and permit discharge points; water supplies; other pollution sources (facilities, oil wells, pipelines, rail lines, etc.); and vulnerable populations (schools, nursing homes, daycare facilities, hospitals, etc.).

EPA MAPPING PROJECT-PURPOSE

PRE-PLANNING



EXERCISES

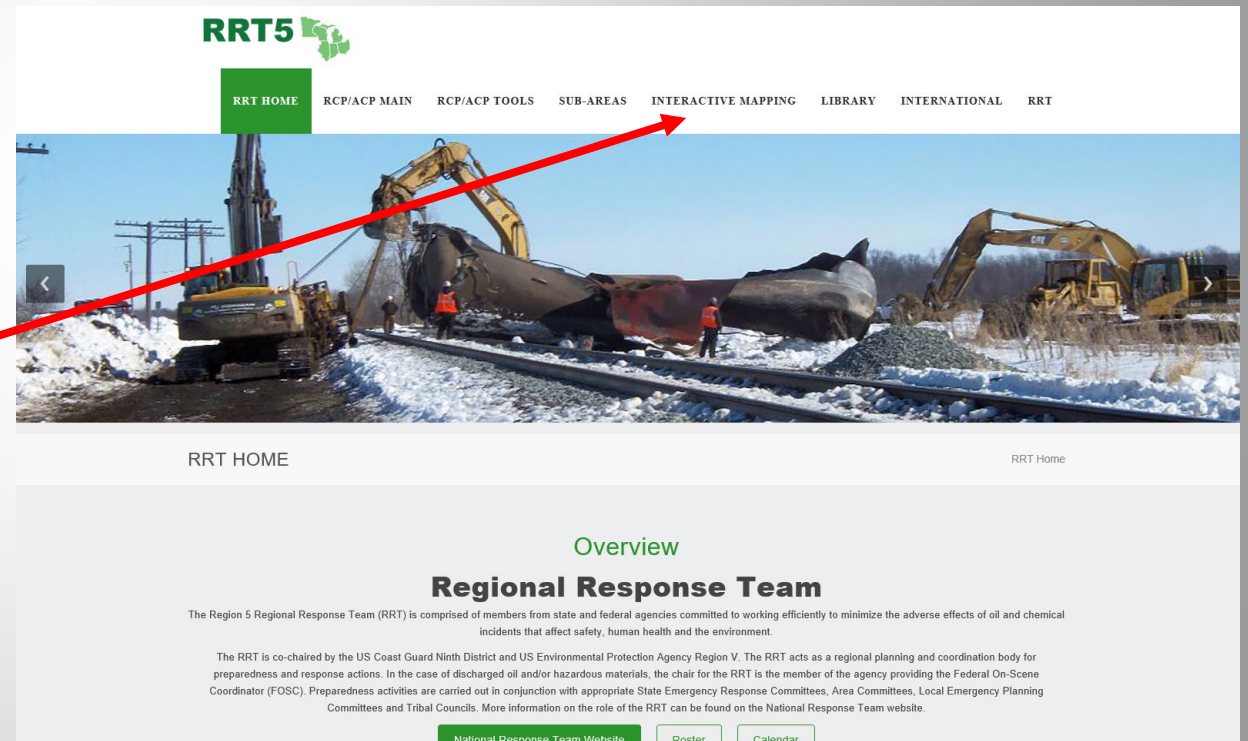
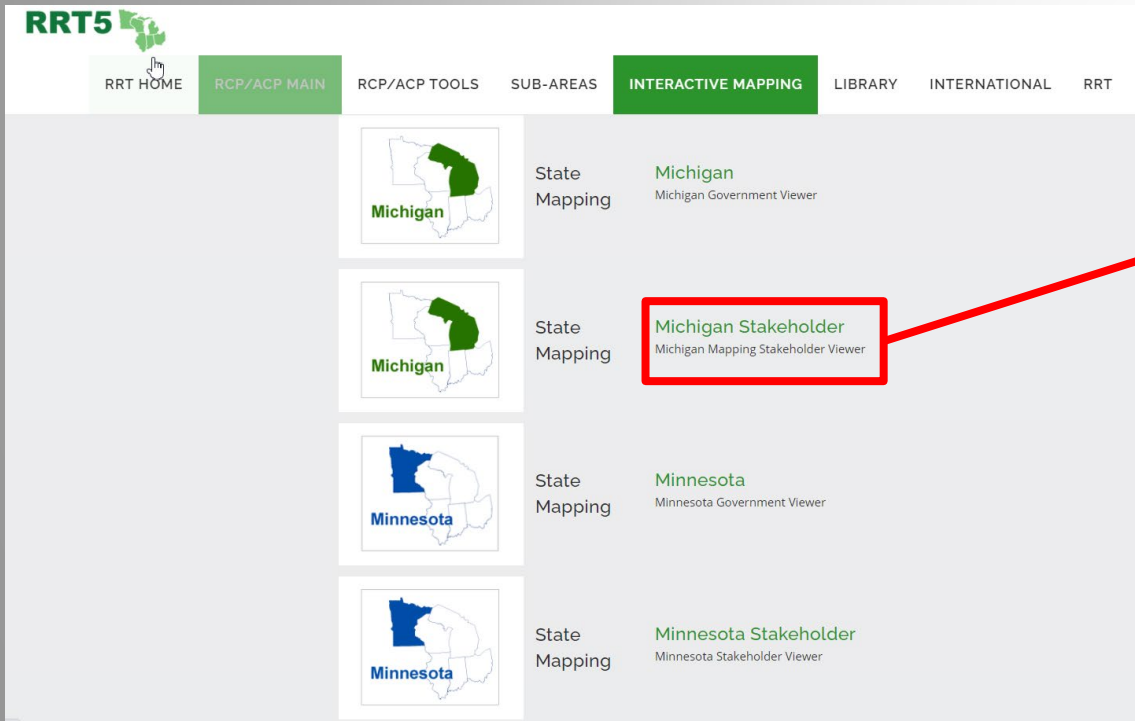


EMERGENCY RESPONSE

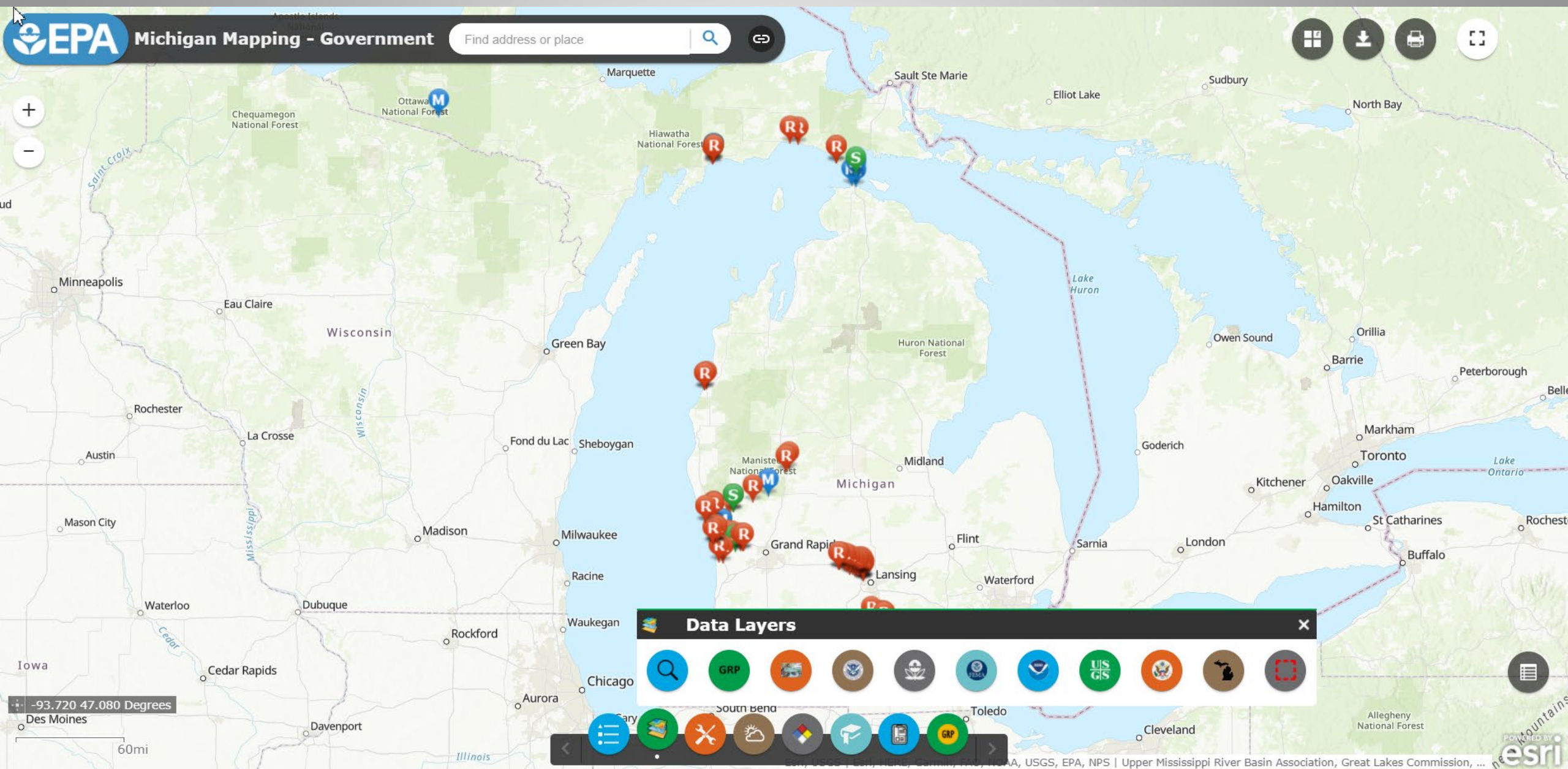


EPA MAPPING PROJECT - ACCESS

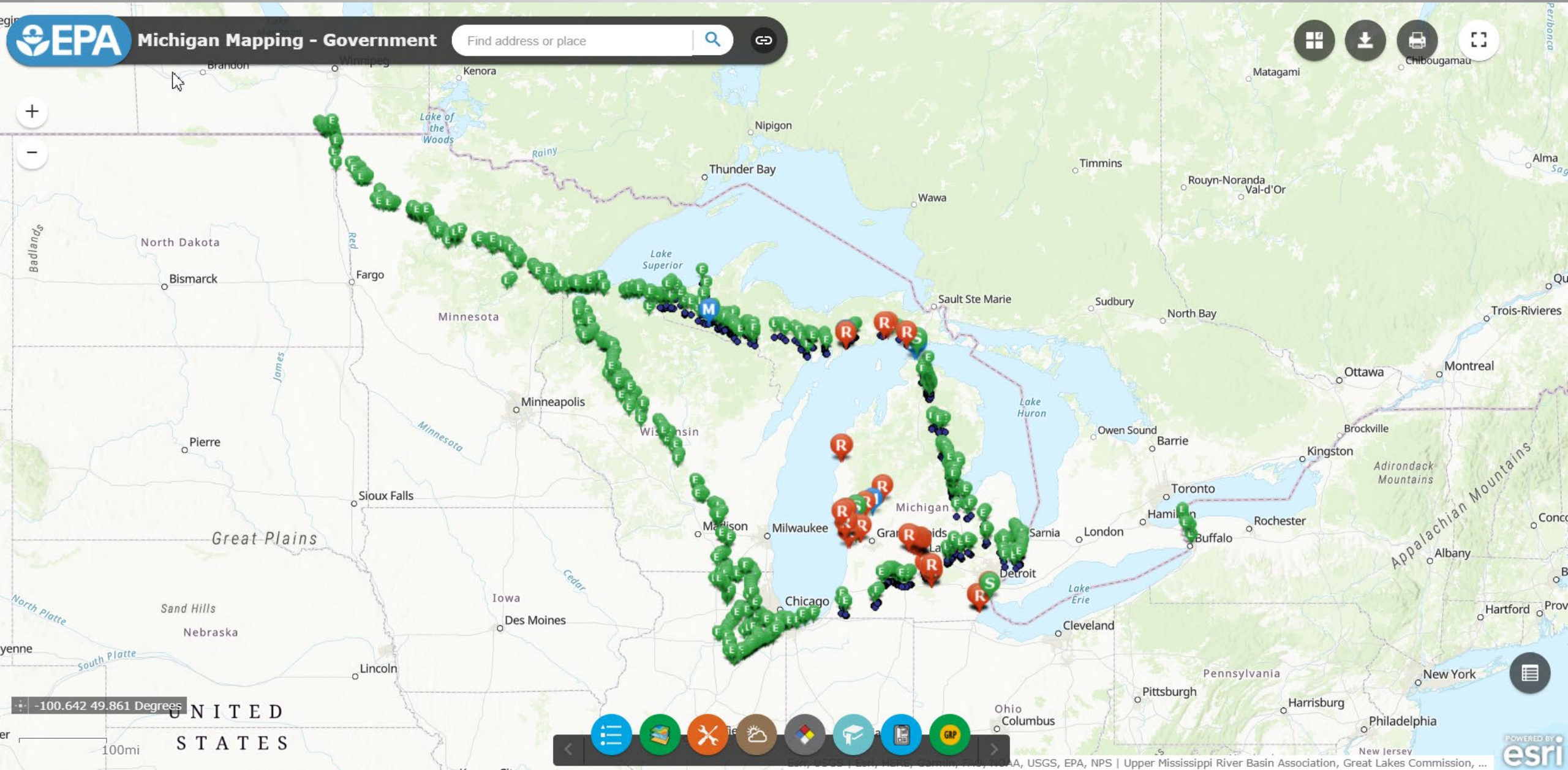
- Access via www.rrt5.org, Interactive Mapping Tab
- 2 Versions of the Project (Govt & Stakeholder) for each State



OPENING SCREEN



CONTAINMENT & CONTROL POINTS



PRINTING CONTAINMENT & CONTROL POINTS

1. Click on Containment Point
2. Find the Print ID
3. Open the GRP Report Generator (red circle)
4. Click Run
5. Click on the custom generated URL
6. Save the Word Document

The screenshot displays the EPA Michigan Mapping - Government application. The map shows Monroe, Michigan, with a red circle highlighting the GRP icon in the bottom toolbar. A 'GRP Response Strategy' popup is visible, showing details for a specific location. A 'GRP Report Generator' window is open on the right, displaying a link to download the report locally.

GRP Response Strategy

Field	Value
PRINT ID	24
Select Form Type	Response Data Sheet
LocID	
Location Name:	Hellenbery Park & Field
City/Township/Village:	Monroe
State:	Michigan
County:	Monroe
Property Type:	Local Government
Fire District:	Monroe Fire Department
latitude_y	41.910239
longitude_x	-83.379624
haccuracy	
Water Body Name:	Raisin River

GRP Report Generator

Click on the link below to download locally

<https://r5.ercloud.org/arcgis3/rest/directories/arcgi>

PRINTING CONTAINMENT & CONTROL POINTS

1. Word Document is fully editable.
2. Doesn't matter who developed the point, anyone can edit and use for their specific needs (i.e. oil vs. ethanol)
3. Points can be used in Spill Plans, FRPs, Area Plans, etc.



U.S. EPA REGION 5 – GRP RESPONSE STRATEGY SURVEY Response Data Sheet

GENERAL INFORMATION	
Location Name: Hellenbery Park & Field - Sterling Island	Location ID:
City: Monroe	State: Michigan
County: Monroe	
Property Type: Local Government	
Fire District: Monroe Fire Department	
Latitude: 41.9102389100433	Longitude: -83.3796238536734
Water Body Name: Raisin River	Water Body Type: Riverine
Inland Habitat Type: Submersed Vegetation, Rooted Floating Aquatics, Shallow Marsh Annual, Shallow Marsh Perennial, Agriculture, Developed	
Operational Area Description: Site Purpose / Objective Containment and recovery Property Type Public Site Habitat (NOAA) Large River, vegetated shoreline, gravel, manmade structures, mud Response Method (NOAA) Containment booming, recovery, vegetation & debris removal Instream Cover Type Overhanging vegetation, aquatic macrophytes, logs or woody debris Amount of Instream Cover Extensive Of Interest at Specific Site City park, walking path, Sterling Island Of Interest Upstream Dams, pipeline crossing, Water Treatment Plant across river Of Interest Downstream Lake Erie, marinas Estimated Time of Impact from Source, based on Current Speed ~4.5 hours.	
Detailed Location Description: Boom Configuration Diversionsary, Containment Boom Size 12 – 18 inch Length of Boom and/or Rope Required (feet) 1,428 as deflectionary boom from upstream corner of Sterling Island to upstream far shore bridge column; 250 for containment from downstream corner of Sterling Island to un-named park on mainland, downstream Nearshore Anchor Type / Location Temporary Farshore Anchor Type / Location Temporary, Danforth or equivalent Calculated Mooring Line Load (pounds each) 339 with 100 feet boom section with six (6) inch skirt	
Safety Concerns: WORKER SAFETY +General Site Specific Hazards (potential, all seasons) Chemical/oil, drowning, heavy equipment operation, high noise, high tension mooring lines, heat stress, cold stress, fatigue, animal/plant/insect, ergonomic, slips/trips/falls, struck by, sunburn, vehicles (aircraft, boats, cars, trucks, etc.) ++Personal Protective Equipment (PPE) Hard hat, safety glasses, steel toe boots, hip waders, PFD, leather work gloves, chemical protective gloves, Tyvek coverall, respirator w/organic vapor cartridges POTENTIAL SEASONAL ISSUES Spring Increased water flow and velocity, ice flow, ice dams, increased human activity, increased animal activity Summer Heat, decreased water flow, increased vegetation, increased human activity, increased animal activity	



CONTAINMENT LOCATIONS

Upstream or downstream of containment location? Downstream

Avg. Depth of Water: 5-15	Depth Units: Feet
Avg. Width of Water: 465	Width Units: Feet
Avg. Width of Water: 465	Width Units: Feet

RESOURCES REQUIRED

Resource: Containment booms—10"float with 6" skirt 25' long—with tension cable	
Quantity: 1,678	Units: Feet

RESOURCES REQUIRED

Resource: Drum Skimmer	
Quantity: 2	Units: Units

RESOURCES REQUIRED

Resource: 130 Barrel / 3,500 gal.-5,500 gal. Vacuum Trailers	
Quantity: 2	Units: Units

BANK TYPES

Upstream or downstream of containment location? Downstream

Right Bank Type: Loose Vegetative	Right Bank Profile (feet): 3
Left Bank Type: Loose Vegetative	Left Bank Profile (feet): 3

UPSTREAM CONCERNS

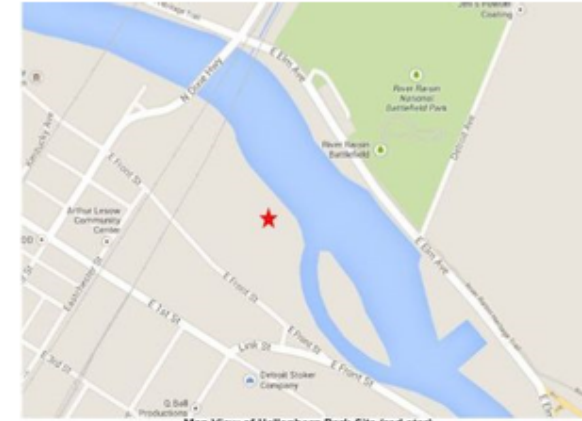
Upstream Concern: Dam
Concern Details: Dam immediately upstream

UPSTREAM CONCERNS

Upstream Concern: Pipeline
Concern Details: Marathon Pipeline from Sarnia to Detroit (16").

UPSTREAM RISKS

Upstream Risk: Pipeline
Risk Details: Marathon Crude Oil Pipeline (16" from Sarnia to Detroit).



Map View of Hellenberg Park Site (red star)

MAP

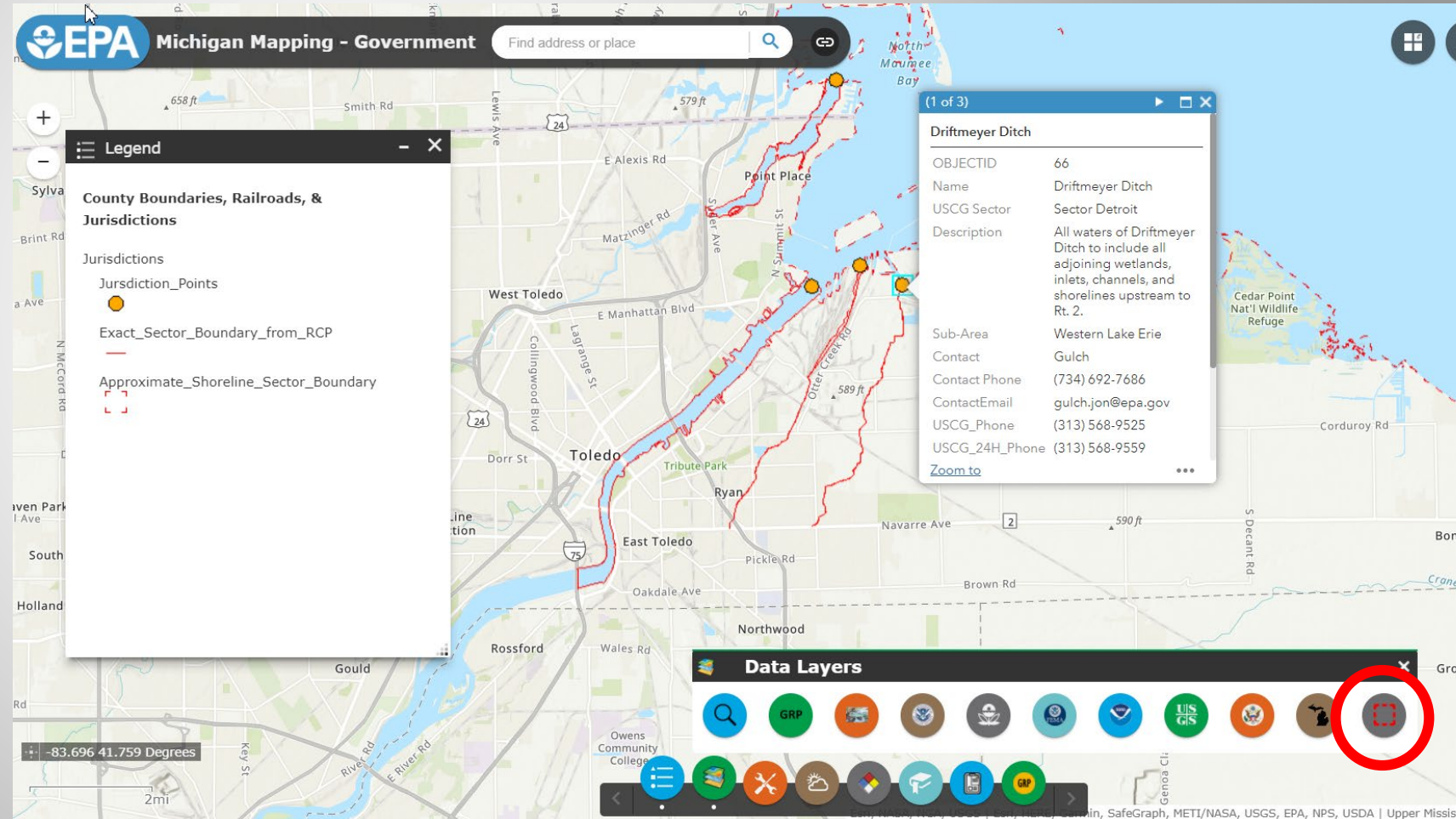


Hellenberg Park Looking West to Bridge Crossings (upstream anchor point)

Photo No.: 1	Direction: West
Upstream or downstream of containment location? Upstream	

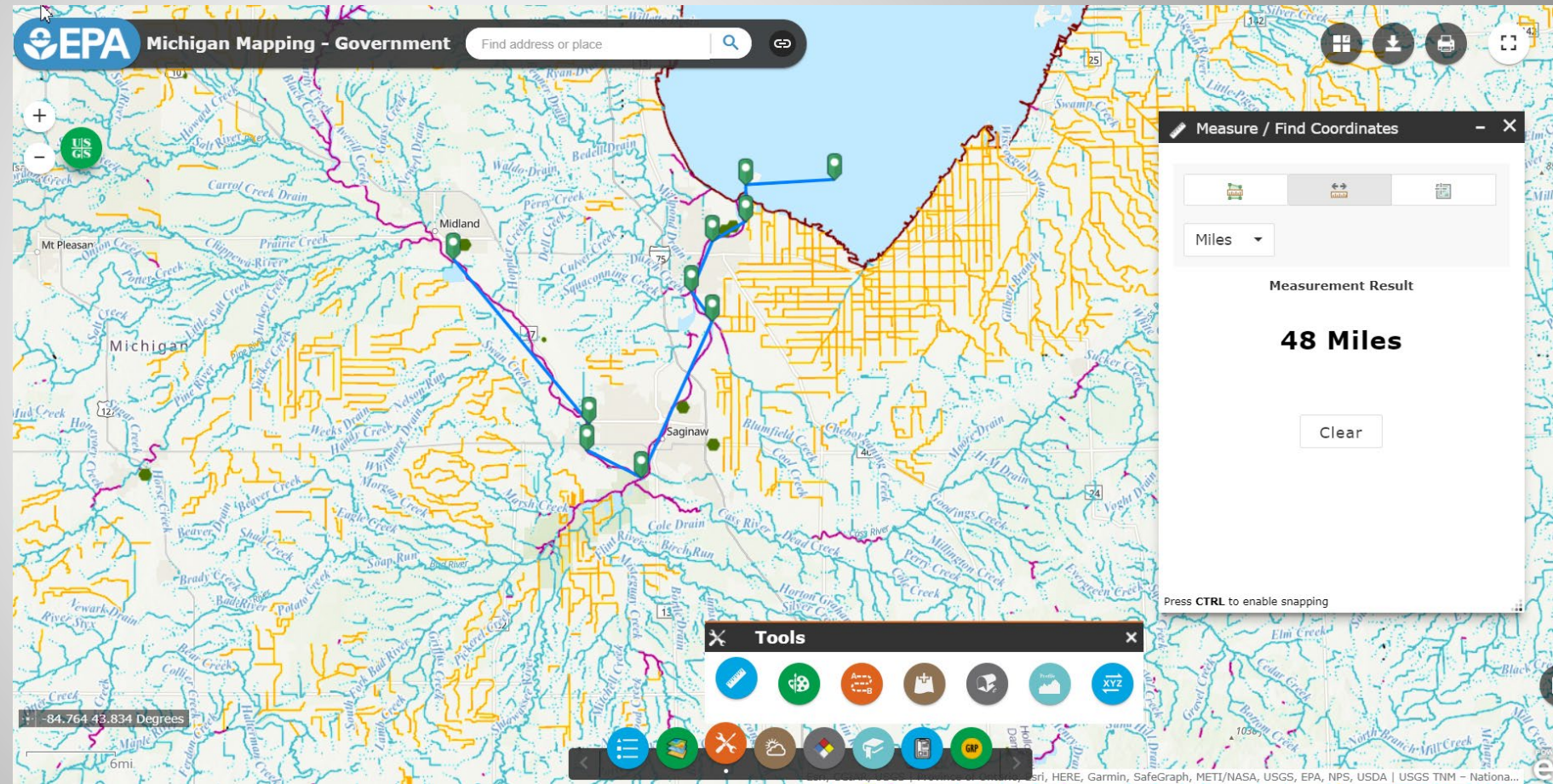
EPA/USCG JURISDICTIONAL BOUNDARY

1. Click on the EPA/USCG Jurisdictional Layer (red circle)
2. Dotted Red Line = Coastline
3. Solid Red Line = USCG Jurisdiction up waterway
4. Orange Point = Description directly from the ACP



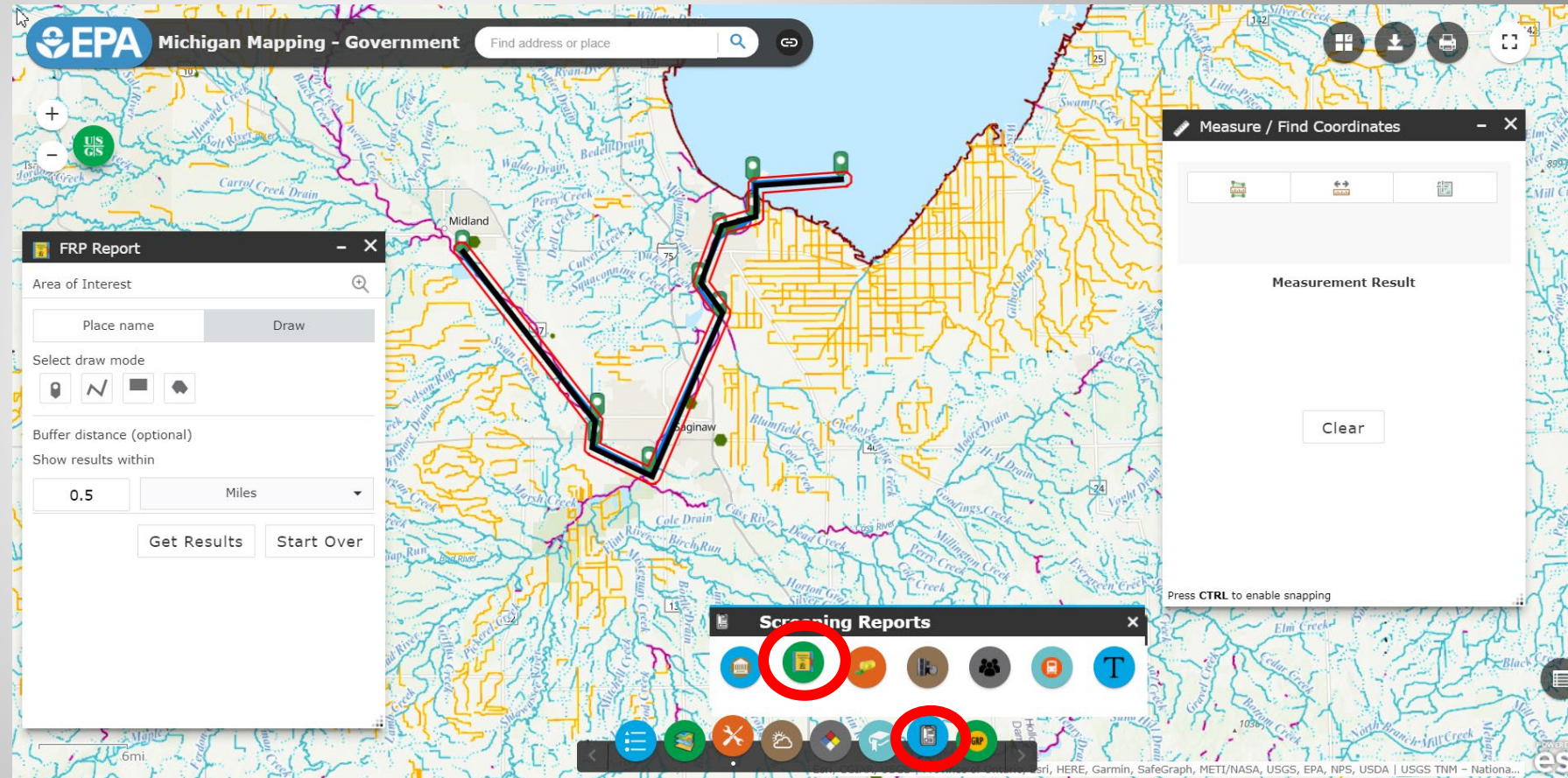
FRP PLANNING TOOL

1. Turn on EPA-FRP Layer and USGS NHDS
2. Use the measure tool to document the FRP Planning Distance following the waterway



FRP PLANNING TOOL

1. Click on the FRP Report Tool (red circle)
2. Re-Draw the measurement line with ½ Mile Buffer, then hit “Get Results”



FRP PLANNING TOOL

1. Report will look for all applicable data within the line with ½ mile buffer.
2. After the report is ready, hit the “Print” button.
3. PDF will be generated that can be edited.

Draft Report created for the October 2020 Region 5 RRT Meeting.

Summary

Name	Count	Area(acres)	Length(mi)
FRP Facilities	4	N/A	N/A
Public Schools	11	N/A	N/A
Private Schools	2	N/A	N/A
Colleges and Universities	1	N/A	N/A
Hospitals	1	N/A	N/A
Hospitals (Cont'd)	1	N/A	N/A
Urgent Care Facilities	0	N/A	N/A
Nursing Homes	11	N/A	N/A
Wastewater Treatment Facilities	4	N/A	N/A
Water Intakes	2	N/A	N/A
Water Intakes (Cont'd)	2	N/A	N/A
Rivers and Streams	13	N/A	39.39
Lakes and Ponds	17	693.83	N/A
Navigable Waterways	25	N/A	N/A
Airports	1	159.11	N/A
Major Roads	51	N/A	29.54
Ports	0	N/A	N/A
Conservation and Recreation Lands (CARL)	52	3,733.05	N/A
Special Designated Areas	8	2,555.70	N/A
Special Designated Areas (Cont'd)	8	2,555.70	N/A
Other Environmentally Sensitive Areas	0	0	N/A
Other Environmentally Sensitive Areas (Cont'd)	0	0	N/A
Sensitive Species	11	138,523.09	N/A

FRP Facilities

Public Schools

#	Name	Address	City	Phone	Type	Population	Count
1	SAGINAW COVENANT ACADEMY	1000 TUSCOLA STREET	SAGINAW	(616) 528-2383	1	-999	1
2	SAGINAW LEARN TO EARN ACADEMY	1000 TUSCOLA ST	SAGINAW	(989) 399-8775	4	129	1
3	JESSIE ROUSE SCHOOL	435 RANDOLPH ST	SAGINAW	(989) 399-5000	1	257	1
4	SAGINAW ARTS AND SCIENCES ACADEMY	1903 N NIAGRA ST	SAGINAW	(989) 399-5500	1	557	1
5	FRANCIS REH PSA	2201 OWEN ST	SAGINAW	(989) 753-2349	1	478	1
6	LINSDAY ELEMENTARY SCHOOL	607 LASALLE ST	BAY CITY	(989) 684-0692	1	279	1
7	MIDLAND ACADEMY OF ADVANCED AND CREATIVE STUDIES	4853 EAST BAILEY BRIDGE RD	MIDLAND	(989) 496-2404	1	189	1
8	BAY CITY ACADEMY MADISON ARTS CAMPUS	400 N MADISON AVENUE	BAY CITY	(989) 414-5480	1	-999	1
9	SHIELDS ELEMENTARY SCHOOL	6900 STROEBEL RD	SAGINAW	(989) 921-4701	1	395	1
10	MICHAEL J MCGIVNEY	925 NORTH RIVER RD	SAGINAW	(989) 781-2780	4	45	1
11	ZILWAUKEE K8 SCHOOL	500 W JOHNSON ST	SAGINAW	(989) 399-5200	1	316	1

Water Intakes

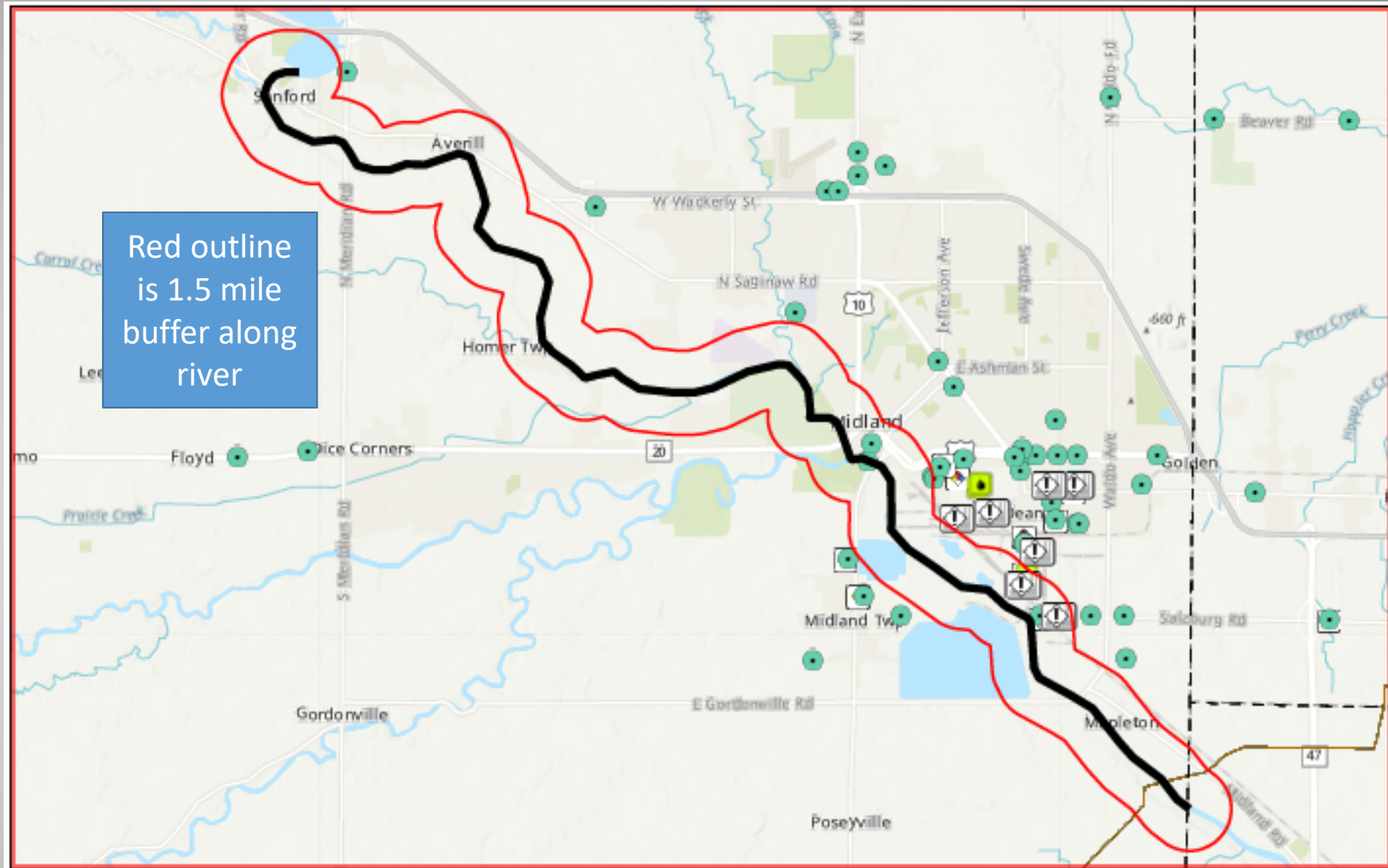
#	Name	Address	City	Emergency Phone	Contact Phone	Waterbody	Count
1	Bay City Terminal	99 Tieman Rd.	Bay City	989-671-9452	989-671-9452	Saginaw River	1
2	Bay City Plant	100 Fitzgerald St.	Bay City	989-894-7333	989-894-7252	Saginaw River	1

Sensitive Species

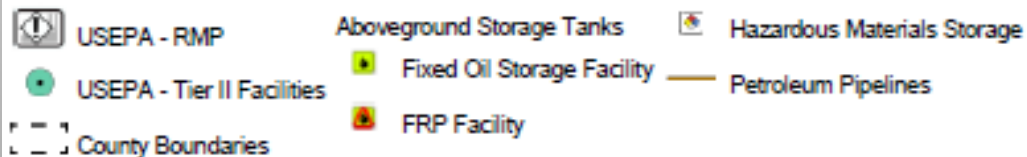
#	Species	Status	Habitat	Area(acres)
1	Northern long-eared bat	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.	31,904.98
2	Indiana bat	Endangered	Summer habitat includes small to medium river and stream corridors with well developed riparian woods; woodlots within 1 to 5 miles of small to medium rivers and streams; and upland forests. Caves and mines as hibernacula.	28,774.27
3	Rufa Red knot	Threatened	Only actions that occur in large wetland complexes during the Red knot migratory window of MAY 1 - SEPTEMBER 30	20,295.31
4	Eastern massasauga	Threatened	No Data	17,164.60
5	Eastern prairie fringed orchid	Threatened	Mesic to wet prairies and meadows	17,164.60
6	Rufa Red knot	Threatened	Only actions that occur along coastal areas during the Red knot migratory window of MAY 1 - SEPTEMBER 30	11,609.66
7	Eastern prairie fringed orchid	Threatened	Mesic to wet prairies and meadows	11,609.66

SCREENING REPORTS: OIL FACILITIES W/IN 0.75 MILES OF RIVER

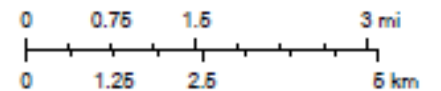
MIDLAND COUNTY



May 20, 2020



1:144,000



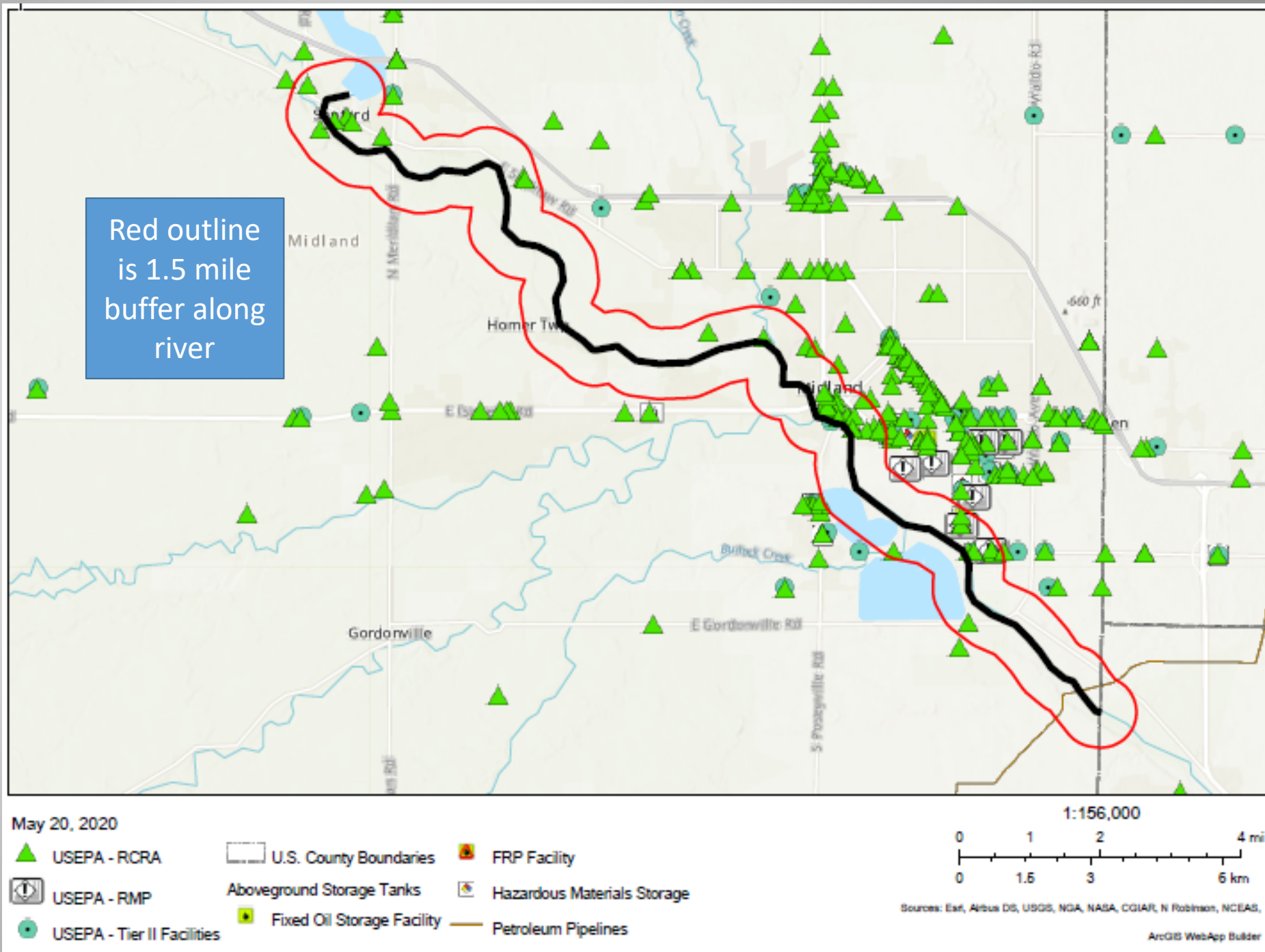
Sources: Esri, Airbus DS, USGS, NOAA, NASA, CGIAR, N Robinson, NCEAS,

ArcGIS WebApp Builder

SCREENING REPORTS:

CHEMICAL FACILITIES W/IN 0.75 MILES OF RIVER

MIDLAND COUNTY



QUESTIONS?



THANK YOU!!!