

**OBG PRESENTS:**

## **Crude by Rail – New York State’s Inland Geographic Response Plans**

A Complete GIS Solution from our client, the NYSDEC.

# Introductions



**Scott Stanton**

- *Scientist/GIS Project Manager, OBG*



*Comprehensive,  
integrated solutions*

**Advanced  
Manufacturing**

**Energy**

**Environment**

**Water**

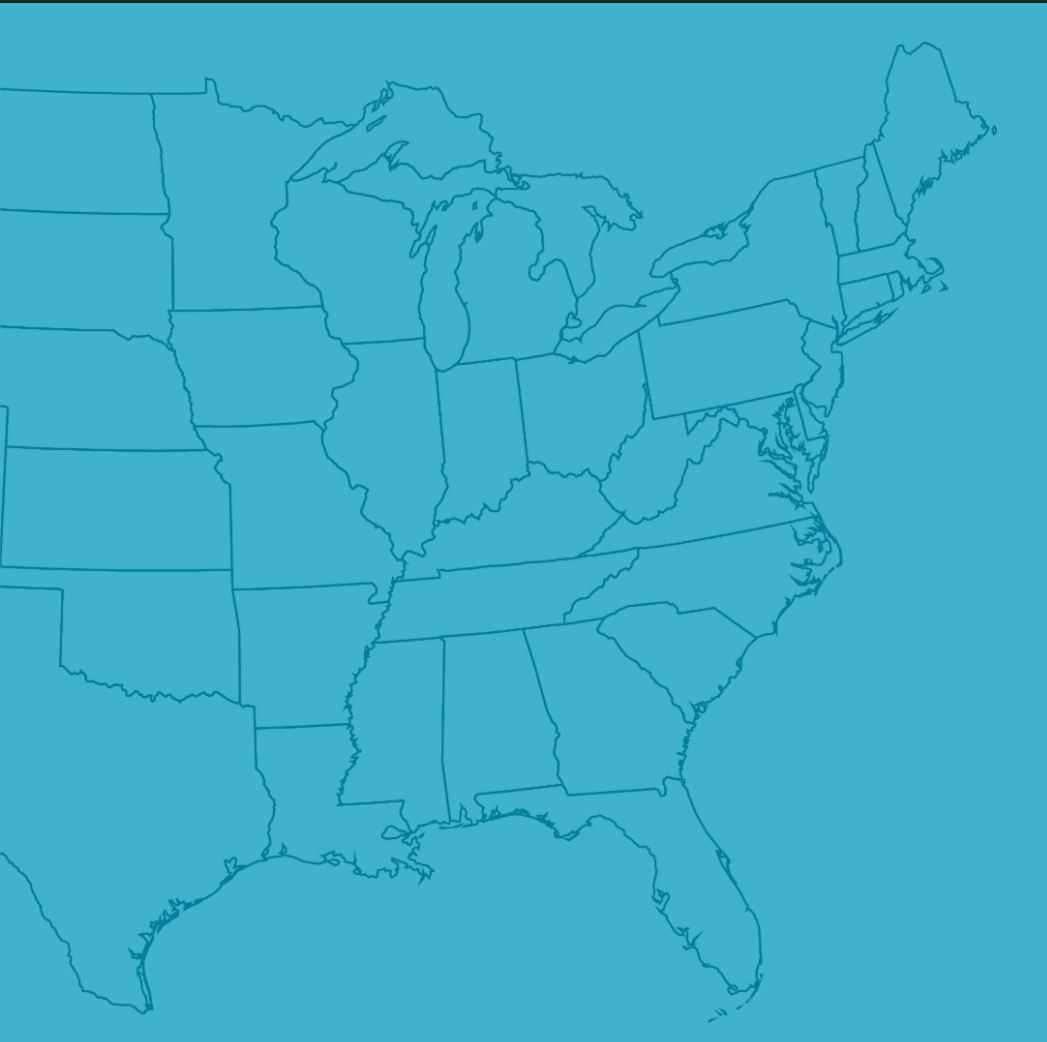




Productivity & process improvements	Planning & resiliency	Remediation	Water supply & treatment
Repurposing & restructuring	Microgrids & storage	Sediment	Wastewater treatment
Technology scale-up	Utilities & infrastructure	Water	Wet infrastructure



# Our story by the numbers...



Over **26** offices

*Throughout the United States*

**1945** Rich history of employee ownership

*Commitment to corporate social responsibility and employee engagement*

**1,000** employees

*People creating a better future by making a difference each day*

**\$208M** in annual revenues

*Purposeful growth and sustainable financial performance*



Figure 4-2: Major Northeast Bound Rail Transport Routes for Bakken Crude



Source: Mouawad, 2014b

# Why GRPs Now?



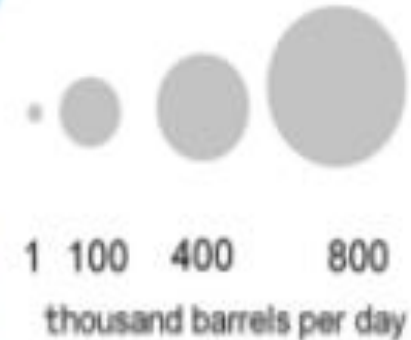
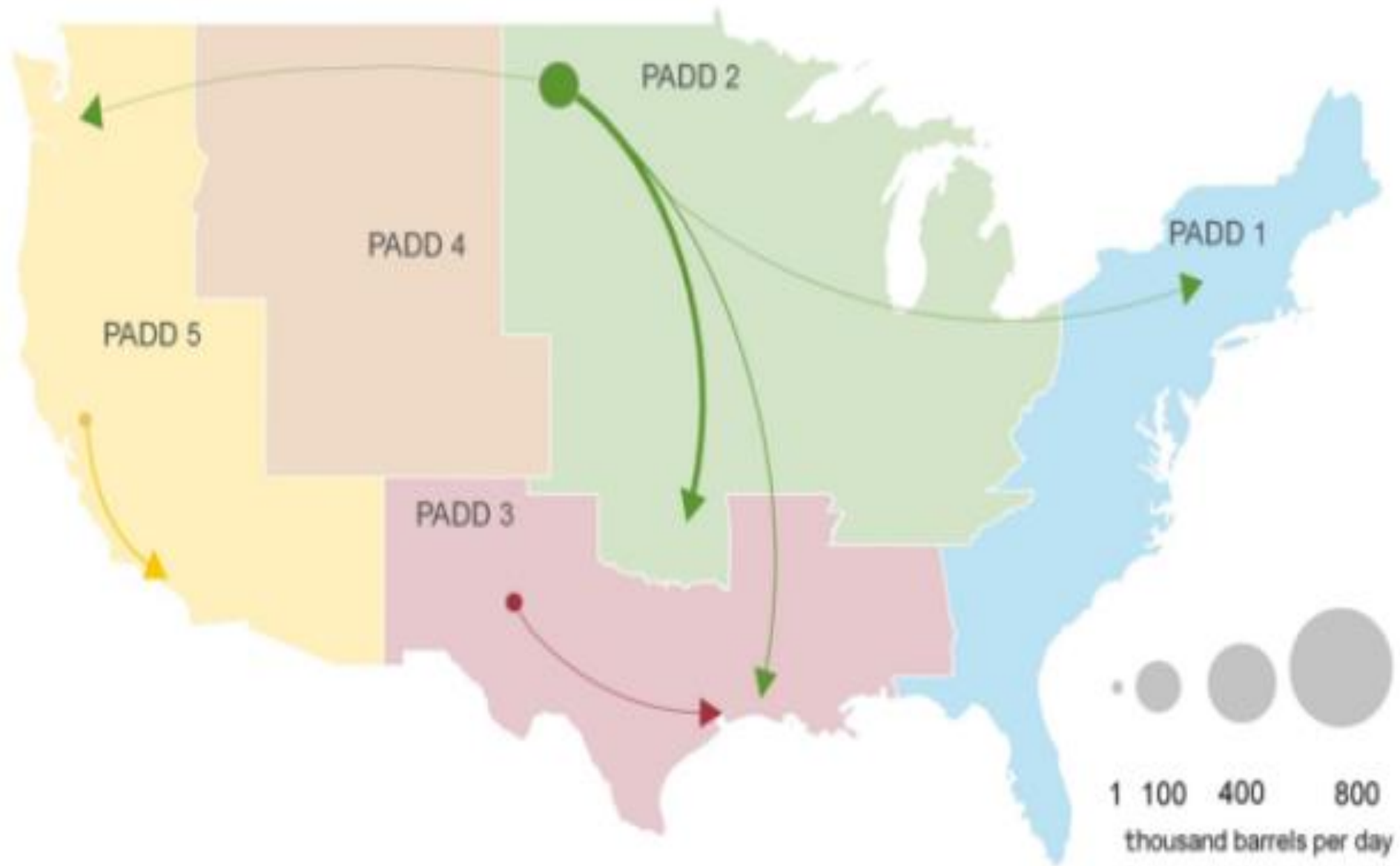
“Unit” Trains = Single Commodity  
 30,000 Gallons/Car x 100 Cars = 3 Million Gallons



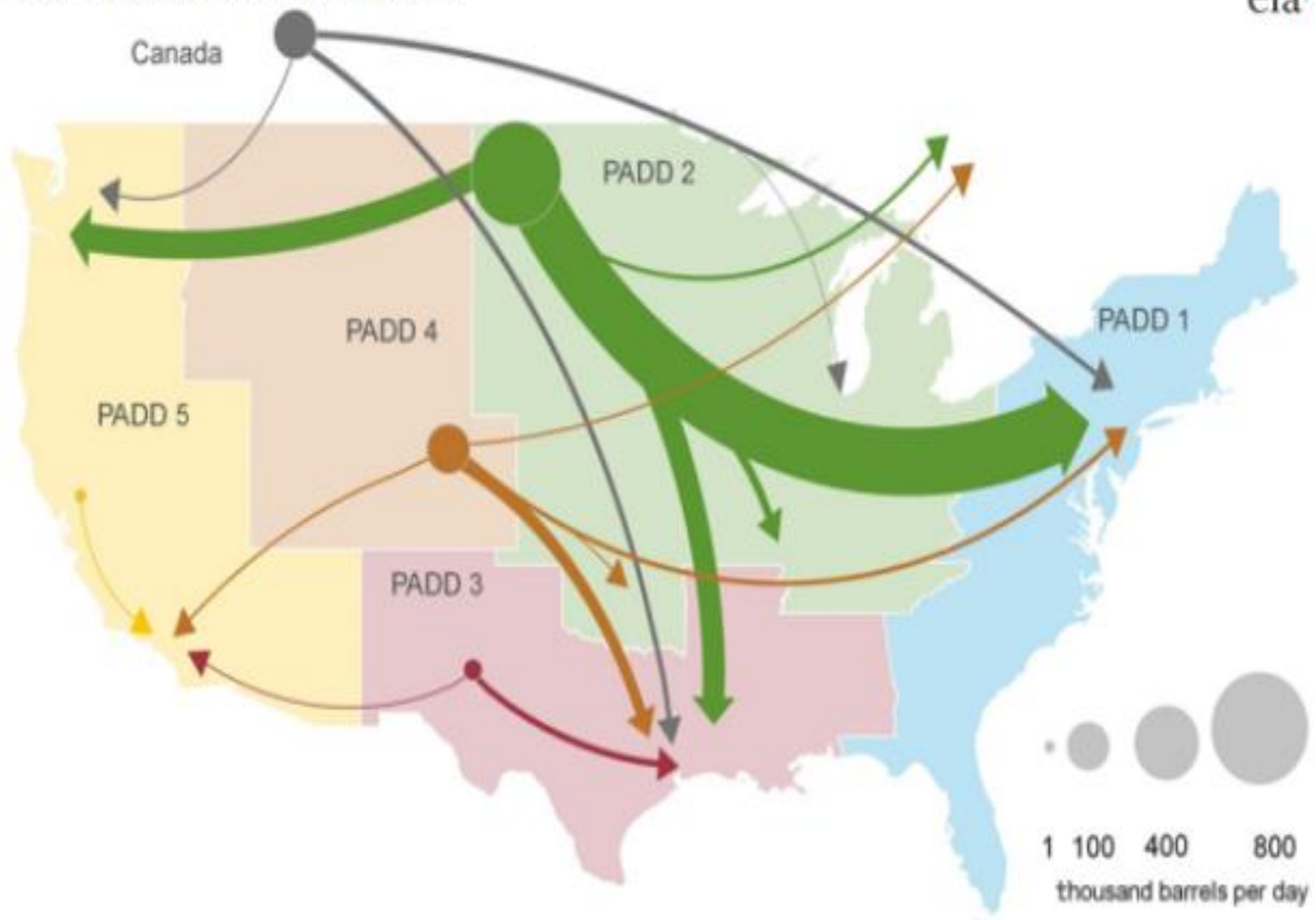
# Crude-by-rail movements (2010)



Canada



# Crude-by-rail movements (2014)





CP Track Length = 200 Miles

CSX Track Length = 489 Miles

**Within ½ Mile:**

- 1464 Schools & Daycares
- 269 Public Water Supply Points
- 1,278 Water Wells
- 7,846 Wetlands
- 1,358 Streams
- 98 Rare / Unique Habitats



## What are GRPs?



Geographic Response Plans (GRPs) are map-based, location-specific contingency plans

### NYS GRPs

- Completed for all 21 crude-by-rail counties
- Greater focus on potential impacts to humans
- Three types (General, Site-Specific, Site-Specific Strategy)
- Notification & Physical Action Strategies
- Valuable planning tool for the first 24 hours and beyond



# GRP Development Considerations

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If there was a spill “here” ...

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How can we *prevent or minimize* the damage?



## Notification Strategies – Who you gonna call?

- Schools, hospitals, daycares, etc.
- Water supply intakes – water plant operators
- Evacuate, Shelter-in-Place, or “Close that Valve”

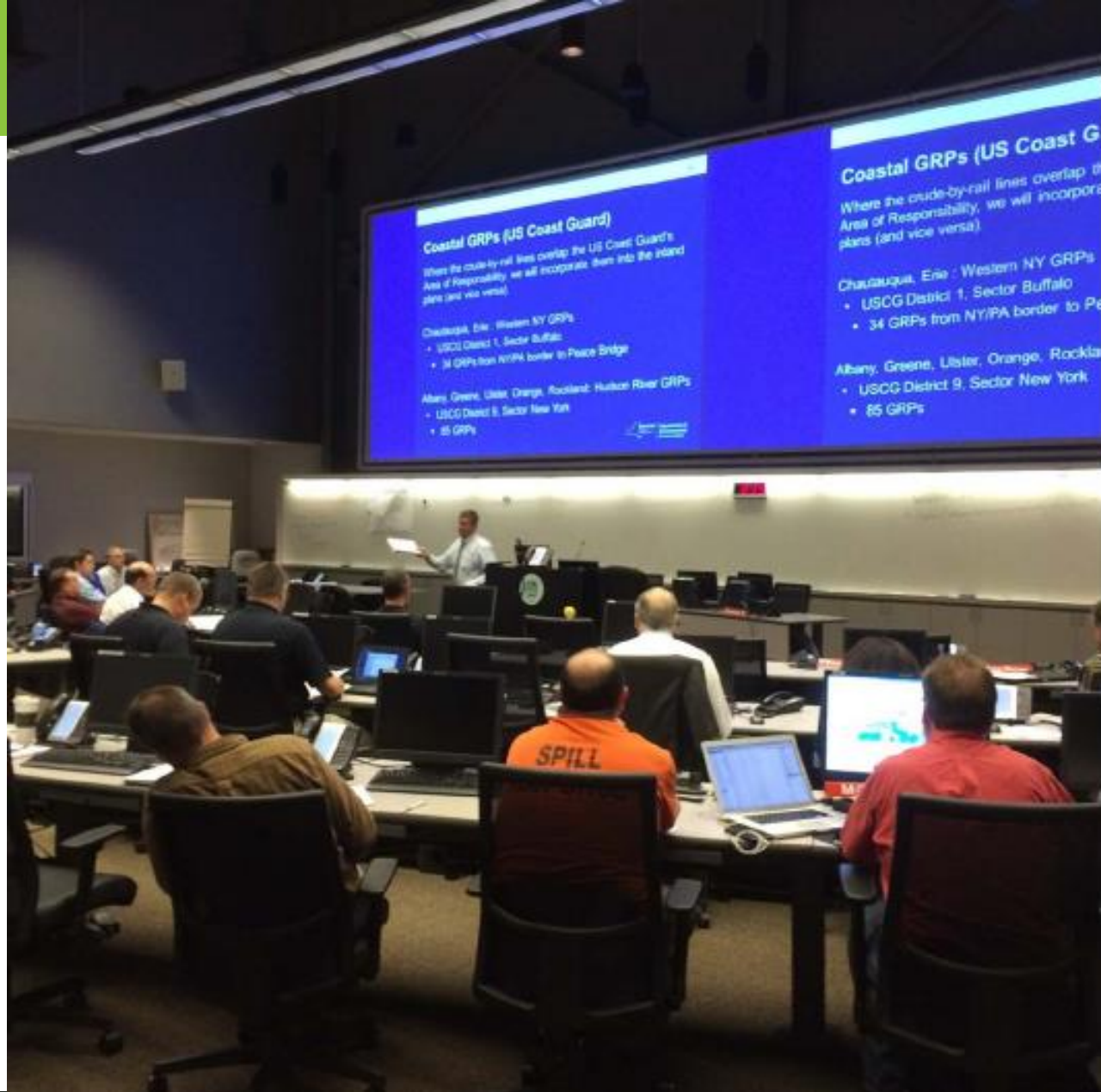
## Physical Action Strategies – Things you can DO!

- Deploy boom to stop or divert oil
- Build berms, dikes, block culverts, etc



# GRP Development Process

- County GRP steering committees
- Working meeting (3-4 hours)
- DEC & contractor compiled info
- Review & comment period
- County & local ownership

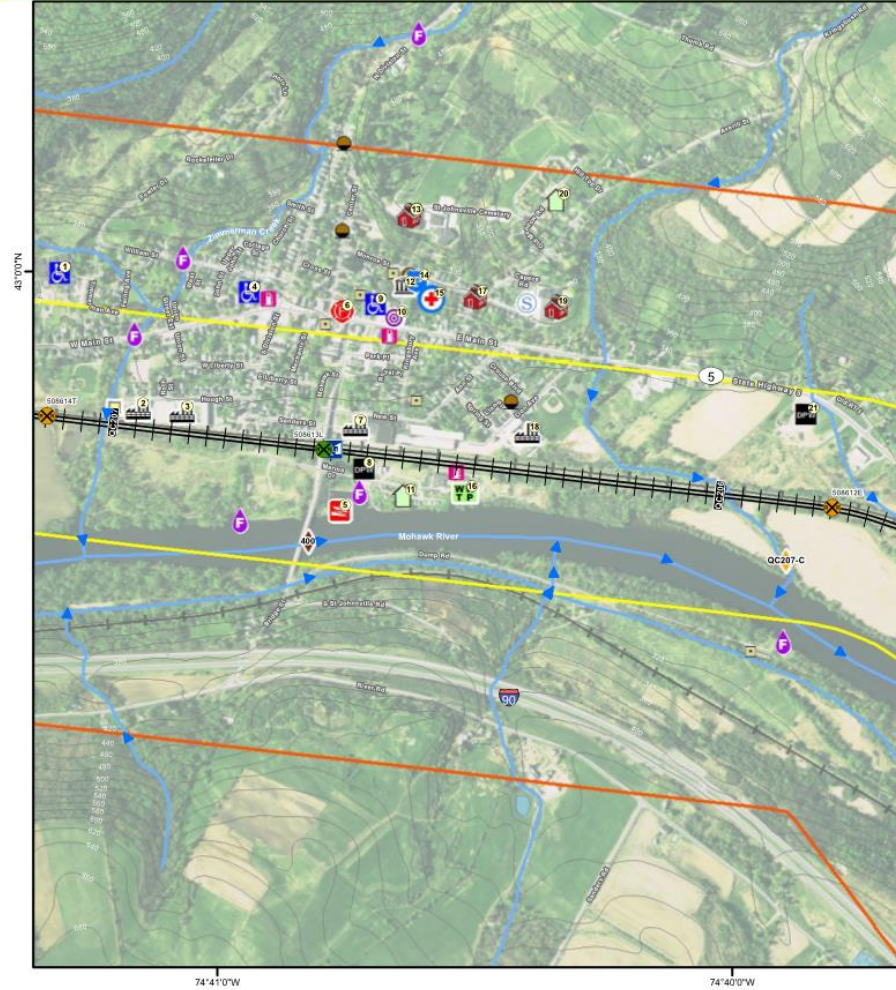




# Site Specific GRP

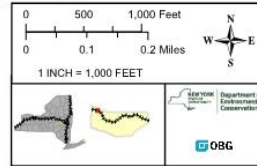


# RAILROAD MILE MARK QC 207 ST. JOHNSVILLE, MONTGOMERY COUNTY



Date Saved: 7/7/2017 8:42:50 PM

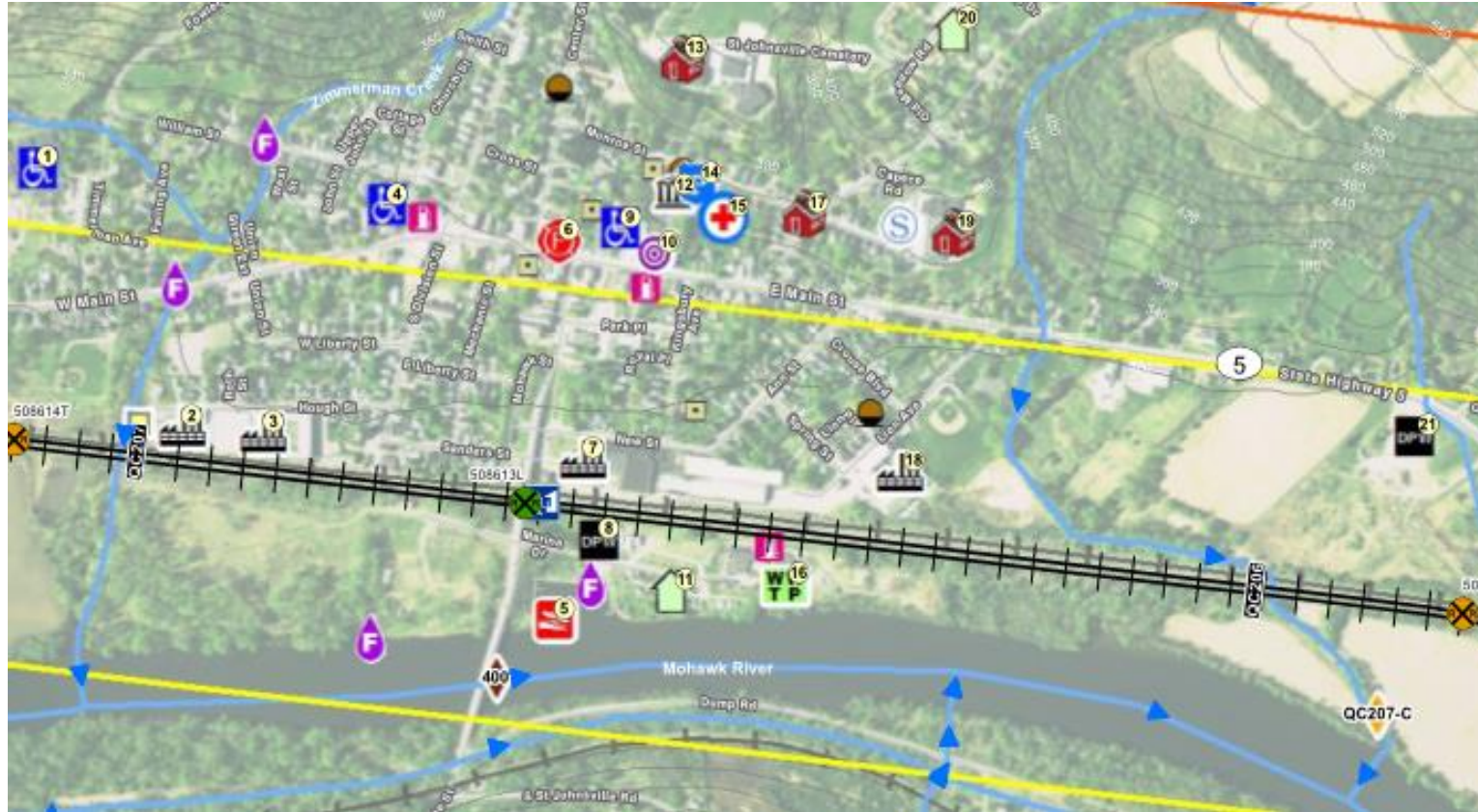
RAILROAD FEATURES	ENVIRONMENTAL FEATURES	SPECIAL RECEPTORS	INFRASTRUCTURE	RESPONSE ASSETS
TYPE OF CROSSING	WETLAND / AQUATIC COMMUNITY	HOME (0.5 MI/HR) (R)	UTILITY (U)	ACCESS POINT - TRACK OR WATERBODY (R)
RAILROAD / RIVER CROSSING - AIR ABOVE GRADE (C)	WETLAND / AQUATIC COMMUNITY - HISTORIC SITE / PARK (NO SIGNIFICANT)	JAIL / PRISON (R)	NATIONAL STATE MONUMENT SITE (R)	FIRE DEPARTMENT (F)
RAILROAD / STREET CROSSING - AIR ABOVE GRADE (C)	WATER FEATURE	NOTABLE INFRASTRUCTURE (I)	RAIL CARLADDER (R)	FIRE HYDRANT (R)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)	CONTOURS - 50 FT	SENIOR LIVING (R)	OTHER PETROLEUM STORAGE FACILITIES (H) (100 GALS) (R)	GRAVEL PIT OR QUARRY (R)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)		DAYCARE / PRESCHOOL (R)	MAJOR OIL STORAGE FACILITY (1000+ GALS) (R)	BOAT LAUNCH OR MARINA (I)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)		SCHOOL (S)	COLLEGE (C)	COMMAND CENTER (C)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)				HOSPITAL (H)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)				POLICE DEPARTMENT (P)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)				STAGING AREA (I)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)				EMERGENCY MANAGEMENT OFFICE (E)
RAILROAD / STREET CROSSING - AIR BELOW GRADE (C)				PSAM APP (S)



Site-Specific GRP



# Site-Specific GRP: A Closer Look



RAILROAD FEATURES	ENVIRONMENTAL FEATURES	SPECIAL RECEPTORS	INFRASTRUCTURE	RESPONSE ASSETS
<b>TYPE OF CROSSING</b> RAILROAD / STREET CROSSING - RR ABOVE GRADE (1) RAILROAD / STREET CROSSING - RR AT GRADE (2) RAILROAD / STREET CROSSING - RR BELOW GRADE (0) RAIL JUNCTION (0) FREIGHT/TRAIN STATION (1) MILE MARKER CSX RAILROAD 0.5 MILE ERG DISTANCE (FIRES) 1000' ERG DISTANCE (SPILLS)	BIRD CONSERVATION AREA (0) STRATEGY - NOT VISITED (1) STRATEGY - VERIFIED (1) WETLAND / AQUATIC COMMUNITY HISTORIC SITE / PARK BOUNDARY WATER FEATURE CONTOURS - 20FT	HOME CLUSTER (2) JAIL / PRISON (0) NOTABLE INFRASTRUCTURE (1) SENIOR LIVING (3) DAYCARE / PRESCHOOL (0) SCHOOL (2) COLLEGE (0)	FACILITY (4) GOVERNMENT BUILDING (1) UTILITY (1) WWTP (1) NATIONAL/STATE REGISTER SITE (5) RETAIL GASOLINE STATIONS (3) OTHER PETROLEUM STORAGE FACILITIES (>1,100 GALS) (5) MAJOR OIL STORAGE FACILITIES (>400,000 GALS) (0)	ACCESS POINT - TRACK OR WATERBODY (0) AMBULANCE (1) BOAT LAUNCH OR MARINA (1) COMMAND CENTER (0) DAM (0) DPW (2) DRAFTING (6) FIRE DEPARTMENT (1) FIRE HYDRANT (0) GRAVEL PIT OR QUARRY (0) HOSPITAL (0) POLICE DEPARTMENT (1) STAGING AREA (1) EMERGENCY MANAGEMENT OFFICE (0) FOAM AFFF (0)



# Site-Specific GRP – Backside

## Railroad Mile QC 207 – St. Johnsville, Montgomery County

Location: Town of St. Johnsville  
 Coverage Area: Town of St. Johnsville  
 Railroad Mile Markers: CSX QC 207.2 to CSX QC 205.6  
 NYSDEC Response Trailer Contact: Emergency Management Office

CONTACT ALL NUMBERS BELOW	
Local Fire & Police	911
National Response Center (EPA)	(800) 424-8802
DEC Spill Response	(800) 457-7362
State Watch Center	(518) 292-2200
CSX Railroad	(800) 232-0144
Montgomery County Emergency Management Office	(518) 853-4011 Off Hours: (518) 853-5500
<sup>14</sup> St. Johnsville Police Department	(518) 568-2141

### FIRE/EXPLOSION:

- IDENTIFY PRODUCT(S).
- NOTIFY POTENTIAL RECEPTORS AND RESPONSE CONTACTS.
- REQUEST STATE WATCH CENTER TO MOBILIZE FOAM ASSETS.
- EVACUATE ½ MILE.
- IF MORE THAN 3 CARS ON FIRE AND NO LIFE SAFETY THREAT, EVACUATE RESPONDERS AND LET IT BURN.
- IF 3 OR FEWER CARS INVOLVED, DOES FIRE THREATEN POPULATIONS OR CRITICAL INFRASTRUCTURE?
  - ◇ IF SO, FIGHT FIRE USING FOAM AND WATER. UTILIZE HIGH VOLUME DRAFT POINTS, IF POSSIBLE.
  - ◇ IF NOT, LET IT BURN. APPLY COOLING WATER TO ADJACENT CARS VIA UNMANNED MONITORS.
- CONSIDER RUNOFF CONTROL MEASURES TO MINIMIZE HEALTH AND ENVIRONMENTAL IMPACTS.

### SPILL/LEAK:

- IDENTIFY PRODUCT(S).
- VAPORS— FLAMMABLE OR TOXIC? APPLY FOAM SUPPRESSION?
- SAFELY REMOVE POTENTIAL IGNITION SOURCES.
- NOTIFY RECEPTOR CONTACTS—1,000 FEET DOWNWIND.
- EVACUATE OR SHELTER IN PLACE AS NECESSARY.
- NOTIFY RESPONSE CONTACTS, RAILROAD, AND/OR NYSDEC TO MOBILIZE SPILL RESPONSE ASSETS.
- EVALUATE FLOW PATH(S). PREVENT FLOW INTO SEWERS/WATERWAYS WITH BOOM/DIKE/BERM.
- IF SPILL REACHES WATERWAYS, NOTIFY DOWNSTREAM RECEPTORS AND DEPLOY BOOM WHERE POSSIBLE.

### DERAILMENT/ACCIDENT (NO OBVIOUS FIRE OR LEAK)

- IDENTIFY PRODUCT(S).
- NOTIFY RESPONSE CONTACTS.
- REMOVE POTENTIAL IGNITION SOURCES.
- ESTABLISH SECURE PERIMETER.

### GEOGRAPHIC ACCESS

**Primary access route:** From the west, take I-90 to exit 29A, left onto NY-169, and right onto NY-55 E. From the east, take I-90 to exit 29, turn right on E Main St, right on Church St, and left on W Grand St (NY-5).

**Alternative access route:** Co Rt 55 runs east/west and provides access south of the track. From Co Rt 55, turn north on Sanders Rd, left on River Rd, and Right on Bridge St into St. Johnsville.

### RAILROAD ACCESS

Access is available from access road off Highway 5, crossing 508614T or by traversing rural farm fields. Access is also available off access road off Mohawk Turnpike (Highway 5), crossing 508612E.

### NOTIFICATION AND EVACUATION - FROM W TO E

#### DOWNWIND CONSIDERATIONS

- <sup>1</sup>St. Johnsville Nursing Center: 518-568-5037
- <sup>2</sup>C H Burkorf and Son Inc.: 518-568-7016
- <sup>3</sup>Helmont Hills: 518-568-7913
- <sup>4</sup>Midtown Estates (Church St): 518-568-2743
- <sup>5</sup>Cellet Plastics: 518-568-7036
- <sup>6</sup>Midtown Estates (Main St): 518-568-2743
- <sup>10</sup>St. Johnsville Youth Center: 518-568-7441
- <sup>11</sup>St. Johnsville Campsite: 518-568-7406
- <sup>12</sup>St. Johnsville Village Office: 518-568-2141
- <sup>13</sup>St. Johnsville Junior/Senior High School: 518-568-2011
- <sup>15</sup>St. Johnsville Volunteer Ambulance: 518-568-5499
- <sup>17</sup>Agriculture Pathways in Technology Early College High School (Ag PTECH): 518-568-7023
- <sup>18</sup>Helmont Mills Storage: 518-568-7913
- <sup>19</sup>David H Robbins Elementary School: 518-568-7023
- <sup>20</sup>St. Johnsville Housing Authority: 518-568-2214

#### DOWNSTREAM CONSIDERATIONS

- <sup>15</sup>St. Johnsville Waste Water Plant: 518-568-2545
- <sup>16</sup>NY Canal Corporation (Fonda Section): 518-853-3823
- Water supply well is located within the geographic area.

### SITE AND SEASONAL CONSIDERATIONS

- Village of St Johnsville DPW<sup>8</sup> has fuel storage at the facility. The St. Johnsville Central School District can be contacted in addition to the school (518-568-7824).
- Electrical substation is located along track at Hough St.
- Waterbodies may be frozen during winter months.
- Notify NYSDEC Spill Hotline (800-457-7362) for any wildlife impacts.

### FIRE SUPPRESSION - FROM W TO E

- <sup>1</sup>High Volume Class B Foam Trailer:
  - West (40 min) - 552 Bleeker Street, Utica, NY 13510
  - East (45 min) - 10 Guy Park Ave Extension, Amsterdam, NY 12010
- <sup>6</sup>St. Johnsville Fire Department: 518-853-5500
- <sup>1</sup>Water Drafting (seasonal access):
  - E Canada Creek: Saltsman Rd
  - Zimmerman Creek: W Main St
  - Zimmerman Creek: William St
  - Mohawk River: Marina Drive (east of Bridge St)
  - Mohawk River: Marina Drive (west of Bridge St - at Marina)
  - Zimmerman Creek: N Division St
  - Mohawk River: Dump Rd

### SPILL RESPONSE - FROM W TO E

- Boom:** Deploy boom at downstream location ahead of oil migration.
- <sup>1</sup>QC207-B: Mohawk River at Bridge St (42.9936°, -74.6803°)
- <sup>1</sup>QC207-C: Tributary of Mohawk River at QC206 (42.9926°, -74.6648°)
- <sup>1</sup>St. Johnsville Municipal Marina: 16 W Main St, St Johnsville, NY 13452

### BERMING RESOURCES - FROM W TO E

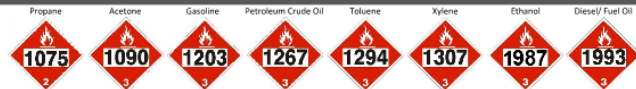
- Public works<sup>16</sup>, quarries<sup>17</sup>, and private berming<sup>18</sup> resource companies will be notified through county dispatch - 518-853-5500
- <sup>1</sup>Horender Construction
- <sup>1</sup>Rifenburg Construction
- <sup>1</sup>Hanson Concrete
- <sup>1</sup>Town of St. Johnsville Highway Department
- <sup>1</sup>Village of St. Johnsville Department of Public Works
- <sup>1</sup>County Department of Public Works
- <sup>1</sup>NYSOT (Region 2; Montgomery County)

### ICP / STAGING - FROM W TO E

- <sup>1</sup>Montgomery County Emergency Service Emergency Operation Center - Ronald R. Emery Public Safety Facility: 200 Clark Drive/PO Box 338, Fultonville, NY 12072
- <sup>1</sup>David H Robbins Elementary School: 61 Monroe St., St. Johnsville, NY 13452



NYSDEC On-Line GRP Viewer  
[www.ny.dec.gov/arccgis](http://www.ny.dec.gov/arccgis)



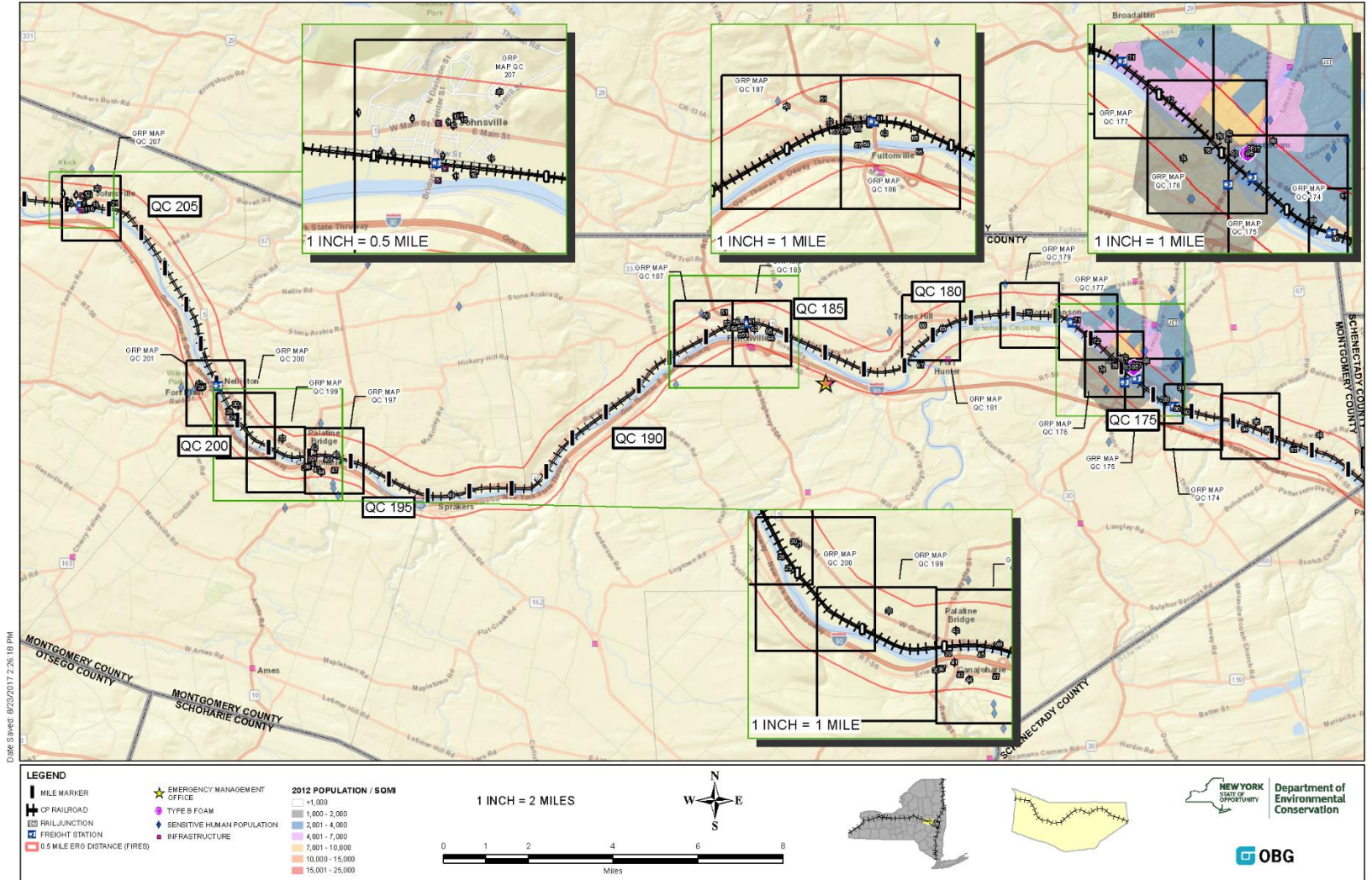




# General GRP

# MONTGOMERY GENERAL GEOGRAPHIC RESPONSE PLAN

## General GRP



# General GRP - Backside

## Montgomery County General Geographic Response Plan

Railroad Mile Markers: CSX 209.85 to CSX 169.43  
NYSDEC Response Trailer Contact: Jeffrey Smith - (518) 848-0453

CONTACT ALL NUMBERS BELOW	
Local Fire & Police	911
National Response Center (EPA)	(800) 424-8802
DEC Spill Response	(800) 457-7362
State Watch Center	(518) 292-2200
CSX Railroad	(800) 232-0144
Montgomery County Emergency Mgt.	(518) 853-4011 Off Hours: (518) 853-5500
NYSOPRHP SHPO—Historic Properties	(518) 268-2170

### FIRE/EXPLOSION:

- IDENTIFY PRODUCT(S).
- NOTIFY POTENTIAL RECEPTORS AND RESPONSE CONTACTS.
- REQUEST STATE WATCH CENTER TO MOBILIZE FOAM ASSETS.
- EVAQUATE 1/2 MILE.**
- IF MORE THAN 3 CARS ON FIRE AND NO LIFE SAFETY THREAT, EVACUATE RESPONDERS AND LET IT BURN.
- IF 3 OR FEWER CARS INVOLVED, DOES FIRE THREATEN POPULATIONS OR CRITICAL INFRASTRUCTURE?
  - IF SO, FIGHT FIRE USING FOAM AND WATER. UTILIZE HIGH VOLUME DRAFT POINTS, IF POSSIBLE.
  - IF NOT, LET IT BURN. APPLY COOLING WATER TO ADJACENT CARS VIA UNMANNED MONITORS.
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- NOTIFY RECEPTOR CONTACTS—1,000 FEET DOWNWIND.** EVACUATE OR SHELTER IN PLACE AS NECESSARY.
- NOTIFY RESPONSE CONTACTS, RAILROAD, AND/OR NYSDEC TO MOBILIZE SPILL RESPONSE ASSETS.
- EVALUATE FLOW PATH(S). PREVENT FLOW INTO SEWERS/WATERWAYS WITH BOOM/DIKE/BERM.
- IF SPILL REACHES WATERWAYS, NOTIFY DOWN-STREAM RECEPTORS AND DEPLOY BOOM WHERE POSSIBLE.

### DERAILMENT/ACCIDENT (NO OBVIOUS FIRE OR LEAK)

- IDENTIFY PRODUCT(S).
- NOTIFY RESPONSE CONTACTS.
- REMOVE POTENTIAL IGNITION SOURCES.
- ESTABLISH SECURE PERIMETER.

### SPECIAL RECEPTORS WITHIN 1/2 MILE, LISTED WEST TO EAST

- St. Johnsville Nursing Center: 518-568-5037
- C.H. Burkhardt and Son Inc: 518-568-7016
- Helmont Milk Storage: 518-568-7913
- Midtown Estates (Church St): 518-568-2743
- Cellet Plastics: 518-568-7036
- Midtown Estates (Main St): 518-568-2743
- St. Johnsville Youth Center: 518-568-7441
- St. Johnsville Campsite: 518-568-7406
- St. Johnsville Village Office: 518-568-2141
- St. Johnsville Junior/Senior High School: 518-568-2011
- Agriculture Pathways in Technology Early College High School: 518-568-7023
- Helmont Mills: 518-568-7913
- David H Robbins Elementary School: 518-568-7023
- St. Johnsville Housing Authority: 518-568-2214
- Fort Plain Senior Center, Inc: 518-993-3432
- Fort Plain Village Office: (518) 993-4271
- Fort Daycare: 518-953-2124
- Nelliston Mobile Home Park: E Main St
- Wee Wittle Wascals Daycare: 518-673-6181
- Brookside Place Apartments: 518-673-2498
- Bright Beginning Child Care: 518-844-5814
- Richardson Brands Co: 518-673-3553
- Tiny Tots Family Daycare (Sarah Andrews): 518-673-3829
- Canajoharie Youth Center: 518-673-5117
- Arkell Museum: 518-673-2314
- Dutchtown Plaza: (No phone number available)
- Town of Canajoharie Justice Court: 518-673-3013
- Arkell Hall Senior Living Facility: 518-673-5514
- Little Friends Nursery School: 518-673-5342
- Rodeway Canajoharie: 518-673-3233
- Kanastota Mohawk Community: 518-584-9270
- Keymark Corporation: 518-853-3421
- Fonda Municipal/Government Offices: 518-853-4335
- Kasson & Keller Inc: 518-853-3421
- Montgomery County Industrial Development/Planning: 518-853-8155
- Fonda Village Clerk: 518-853-4335
- Montgomery County Health Department: 518-853-3531
- Fonda-Fultonville After School Program: 518-853-4747
- Fonda Fairgrounds: 518-853-3313
- Fonda-Fultonville Central School District: 518-853-4415
- Creative Minds Childcare Program: 518-848-2443
- Iroquois Trail Home Cluster: Iroquois Trail near 508725K crossing
- Regional Center for Independent Living: 518-842-3561
- Whispering Pines Pre-School: 518-843-3003
- River Ridge Living Center: 518-843-3503
- RINCA Academy for International Studies and Language Magnet School: 518-943-4773
- McNulty YMCA: 518-842-2130
- Amsterdam Housing Authority Garden Apartments: 518-866-1061
- Lynch Middle School: 518-843-3716
- Amsterdam Preschool: 518-843-3250
- Mohawk Terrace Senior Apartments: 518-842-8316
- Sanford Home: 518-842-3670
- The Sentinel at Amsterdam: (no contact available)
- Amsterdam City Hall: 518-841-4311
- Willow St/Prospect St Facilities
- Kap Stone Paper & Packaging: 518-842-2450
- Sam Stratton Rd Facilities
- Fulmont Community Action Agency, Inc. Head Start: 518-842-8225
- Cranes Hollow Rd Home Cluster
- Capstone Center for Rehabilitation and Nursing: 518-842-6790

### INFRASTRUCTURE WITHIN 1/2 MILE, LISTED WEST TO EAST

- Montgomery County Emergency Management: 518-853-4011
- St. Johnsville Municipal Marina: 518-568-7406
- St. Johnsville Fire Department: 518-853-5500
- Village of St. Johnsville Department of Public Works: 518-853-5500
- St. Johnsville Police Department: 518-568-2141
- St. Johnsville Volunteer Ambulance: 518-568-5499
- St. Johnsville Waste Water Plant: 518-568-2545
- Town of St. Johnsville Highway Department: 518-853-5500
- Fort Plain Fire Department: 518-853-5500
- Fort Plain Police Headquarters: 518-993-3781
- Fort Plain Department of Public Works: 518-853-5500
- Nelliston Boat Launch: Old Station Road, Palatine Bridge NY 13428
- Montgomery Co. Sewer District/WWTP: 518-993-4744
- Nelliston Department of Public Works: 518-853-5500
- Canajoharie Police Department: 518-673-3111
- Canajoharie Fire Department: 518-853-5500
- Canajoharie DEC Boat Launch: Riverfront Park, Church St, Canajoharie NY 13317
- Canajoharie Wastewater Treatment Plant: 518-673-3017
- Canajoharie Public Works Department: 518-853-5500
- Mohawk Department of Public Works: 518-853-5500
- County Department of Public Works: 518-853-5500
- New York State Canal Corporation (Fonda Section): 518-853-3823
- NYS Canal Corp Boat Launch: St Hwy 30A Bridge (Fonda side)
- Nathan Littauer Urgent Care: 518-725-8621
- Fonda-Fultonville Wastewater Treatment Plant: 518-853-3469
- Riverside Drive Boat Launch: 123 Riverside Dr, Fultonville NY 12077
- Tribes Hill Boat Launch & Park: 166 Dufel Rd, Amsterdam NY 12010
- Tribes Hill Fire Department: 518-853-3500
- Fort Johnson Volunteer Fire Company: 518-853-5500
- St. Mary's Hospital: 518-842-1900
- Port Jackson Boat Launch: 15 Erie Terrace, Amsterdam NY 12010
- Amsterdam Fire Department: 518-843-1312
- Amsterdam Police Department: 518-842-1100
- Greater Amsterdam Volunteer Ambulance Corp. Inc: 518-843-1150
- Amsterdam State Launch: 105 CLUIST Rd, Amsterdam NY 12010
- Amsterdam Waste Water Treatment Department: 518-843-3897
- Lock E10 Boat Launch: 725 NY-55, Amsterdam, NY 12010
- Cranesville Fire Department: 518-853-5500
- Callanan Industries Boat Launch: 401 NY-55, Amsterdam, NY 12010
- NY State Watch Center (Foam Task Force) will deploy Class B foam trailers upon request. Manage runoff to minimize environmental impacts. Class B foam cache located at:  
Saratoga County - 25 West High Street, Ballston Spa, NY 12020  
Albany Fire Department - 26 Broad Street, Albany NY 12202

### RESPONSE CONSIDERATIONS

- Prevent migration of spill into waterways if possible. Use earthen berms, plastic sheeting, or other means to block or divert spill movement.
- Waterbodies and canals may be frozen and/or drained in winter months. Snow and ice can limit spill migration.
- Identify wind direction and speed, and notify/evacuate as appropriate.
- If spill reaches waterways, identify any downstream water intakes, and notify operators.
- Identify impacted wildlife and notify DEC Spill Response Hotline.
- Identify impacted historic properties and New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) - State Historic Preservation Office (SHPO).
- Flammable liquids become less flammable and have less toxic vapors over time. Do not conduct aggressive response or containment actions if there's no immediate life and safety threat.
- Initial booming actions should be conducted in advance of migrating oil, not in contact with oil.
- If propane, vapors are heavier than air and may accumulate in low lying areas. Identify low areas and evacuate, isolate, and/or vent.





# Site Specific Strategies

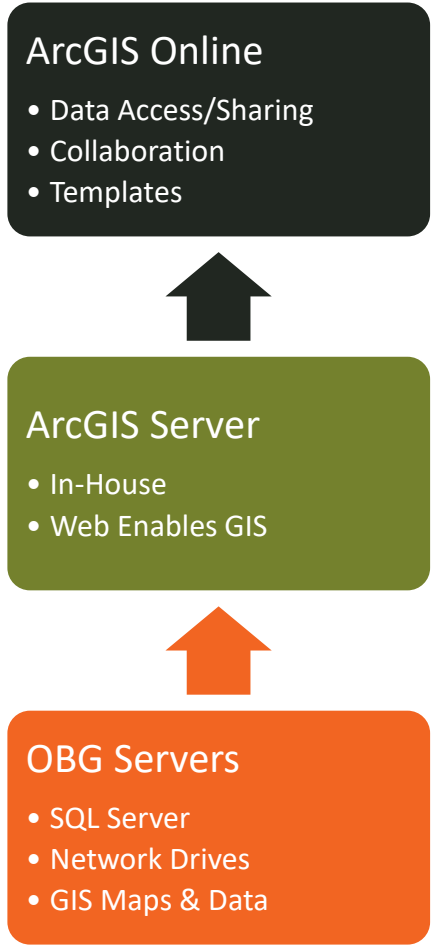
# Booming Opportunity



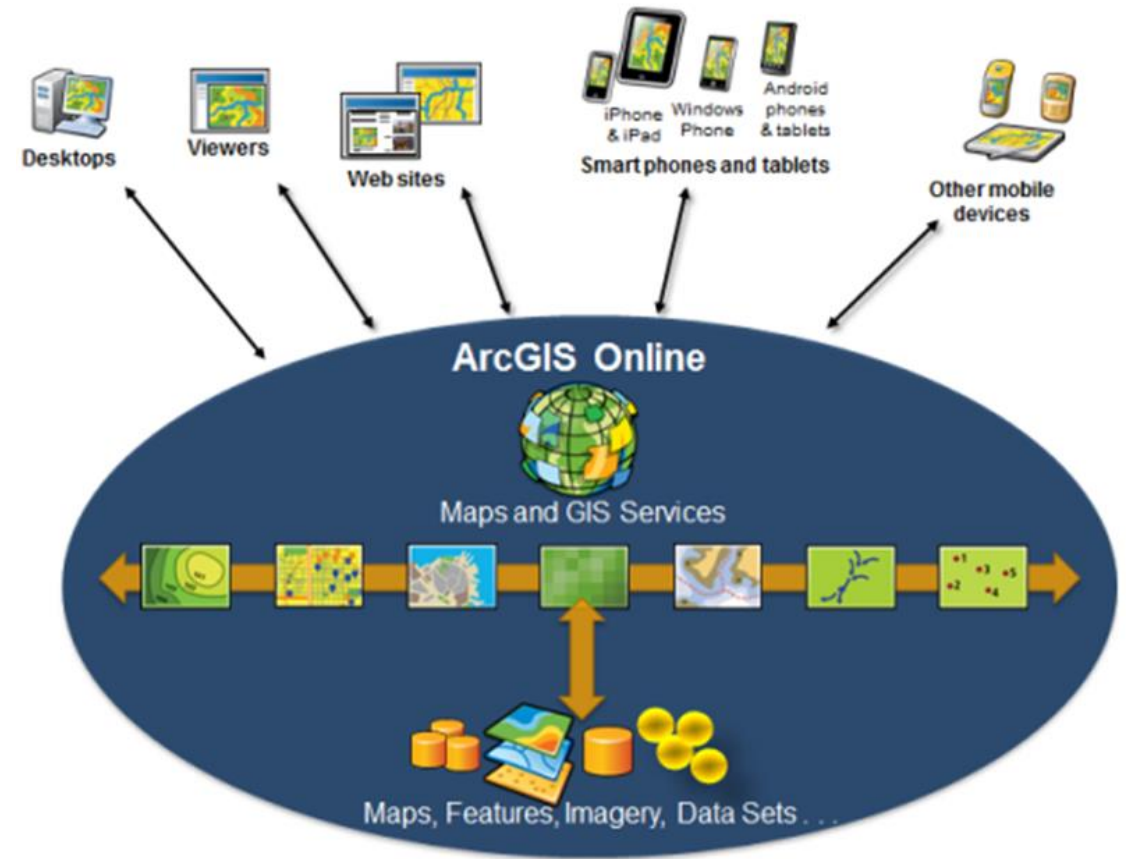
# Damming Opportunities



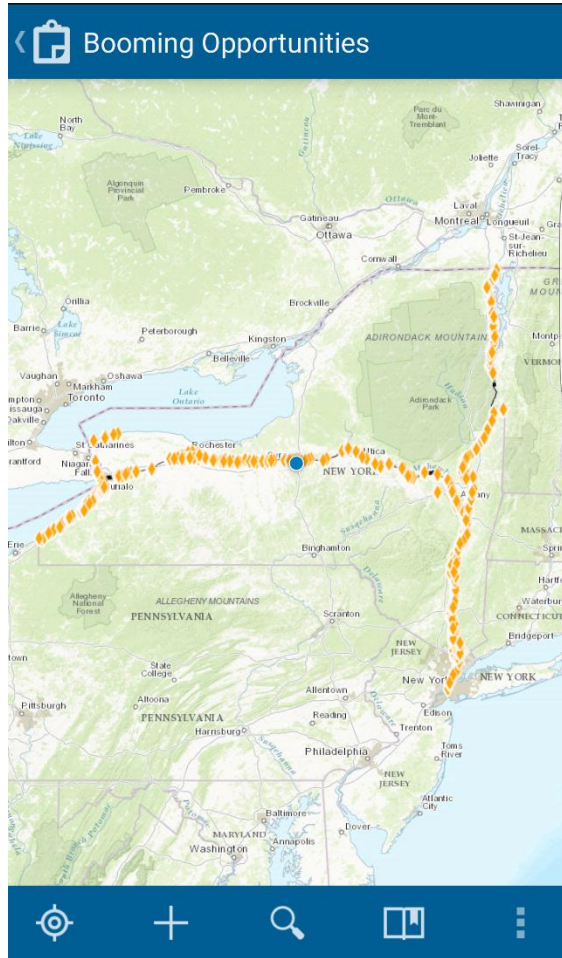
# Infrastructure for Field Activities



## Apps Powered By ArcGIS Online



# Site-Specific Strategies – Collector for ArcGIS



✓ Details

LABEL  
**217-D**

LABEL1  
**300'**

LON  
**-74.86**

LAT  
**43.04**

INTERSECTION  
**ERIE CANAL AT MOHAWK ST**

COUNTY  
**Herkimer**

CHECKED BY  
**Rob Schrader**

DATE  
**August 10, 2016**

FIELD TEST  
**No**

FIELD VISIT  
**Yes**

✎ 🗑️ ⋮

✓ Details

**August 10, 2016**

FIELD TEST  
**No**

FIELD VISIT  
**Yes**

BOAT REQUIRED  
**Yes**

ADDITIONAL COMMENTS  
**OSRO will deploy boom. Out of scope for First Responders.**

BOOM\_LENGTH

DIRECTION  
**West**

ATTACHMENTS




Photo1.jpg  
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# Site-Specific Strategy – Data Driven Pages

## SITE SPECIFIC STRATEGY QC207-C ST. JOHNSVILLE, MONTGOMERY COUNTY



ANCHOR POINT	PARKING AREA	BOOM
BERM	STAGING AREA	RAILROAD
UNDERFLOW DAM	PHOTO LOCATION	WATER FEATURE AND FLOW
COLLECTION AREA		

LOCATION	
Water Body Name	UNNAMED DITCH
Water Body Type	DITCH
Parking/Staging Location	PRIVATE AGRICULTURAL FIELDS
Booming GPS Location	42.993071, -74.664881
Address	7403 ST HWY 5 E ST. JOHNSVILLE, NY 13452
Distance From Track	550 ft S
NYSDEC Trailer Contact	JEFFREY SMITH: 518-848-0453



### PROPOSED STRATEGY

Strategy Type	Degree of Difficulty	Implementation	Considerations
COLLECTION BOOM - 200'	MODERATE - OIL SPILL RESPONSE ORGANIZATION (OSRO) IMPLEMENTATION SUGGESTED	2-3 PERSON CREW, 200' BOOM, 100' SORBENT BOOM, ROPE, ANCHORS, STAKES, STAKE HAMMER, EMERGENCY RESPONSE TRAILER AND TRUCK, VACUUM TRUCK  COLLECTION BOOM - INSTALL 100' BOOM 100' FROM CONFLUENCE WITH MOHAWK RIVER. ANGLE TO DIRECT OIL TOWARD EASTERN BANK. INSTALL ADDITIONAL 100' BOOM AT BRIDGE/CULVERT 250-300' UPSTREAM.  SECONDARY - DEPLOY 100' SORBENT BOOM AS NEEDED.	PPE/PFD SLIPS/TRIPS/FALLS BIOLOGICAL HAZARDS (TICKS, ETC.) 10-12" DITCH WIDTH 6-12" WATER DEPTH MODERATE CURRENT OBSERVED SOFT BOTTOM RAILROAD SAFETY BOAT MAY BE REQUIRED

**Additional Notes**  
BRIDGET FRAWLEY, 63 OVERLOOK DR. S, MECHANICVILLE, NY 12118. ACCESS BY BOAT OR AT RAILROAD CROSSING 508612E AND AGRICULTURAL FIELDS

RESOURCES POTENTIALLY AT RISK	
Within 1/2 mile	Present?
Threatened and Endangered Species	No
NWI / State Wetlands	Yes
Water Intake	No
Special Management (State Parks / Public Parks)	No
Schools or Daycares	No
Tribal Lands and/or Resources	No
Cultural Resources	Yes
Hospital	No
Senior Living	No
Scenic Area	No

Date Saved: 6/16/2017 11:00:36 PM



### PHOTO LOCATION 1      PHOTO LOCATION 2



Source: Photos obtained from OBG or Bing Imagery.



# Site-Specific Strategy –Data Driven Pages

- All text and pictures are data driven from the Collector App and Geoprocessing functions.

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PHOTO LOCATION 1



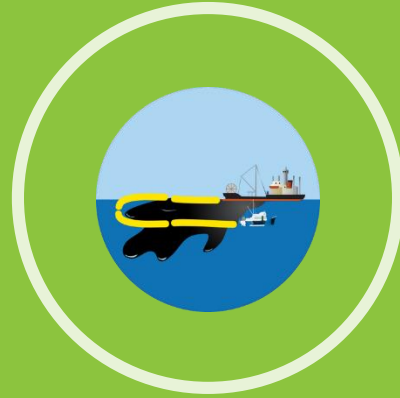
PHOTO LOCATION 2



Source: Photos obtained from OBG or Bing Imagery.

NYSDEC  
Emergency  
Response Trailer





# Permanent Infrastructure

# First Response and Beyond

Identify locations for physical infrastructure improvements.

- Anchor Points
- Permanent boom – Staged in fixed containers – used for larger bodies of water.

Prioritized for protecting critical areas throughout the state

- Impacted by a spill
- Could be used to supplement the mobile spill response trailers throughout the state.

Access Limitations?

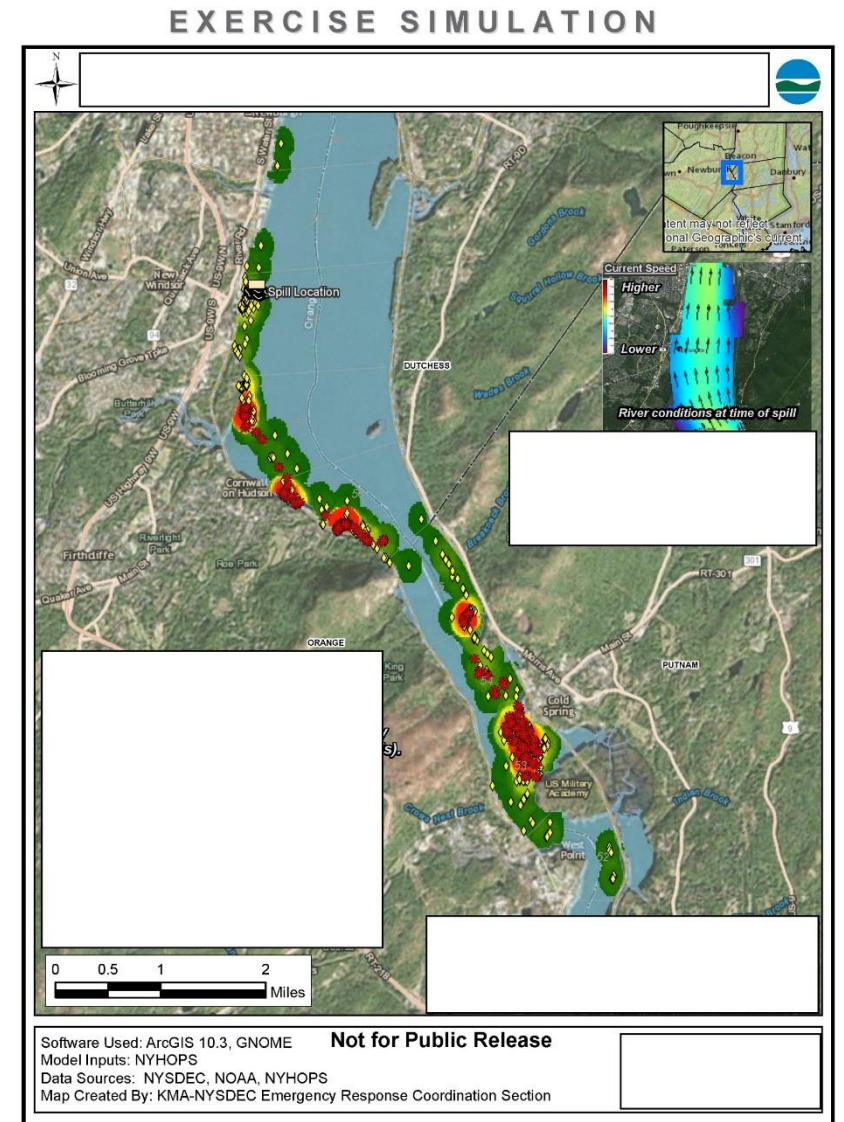
- Areas with limited access and mobile assets cannot assist.

Critical for not only first responders, but NYSDEC spill contractors and state contractors.



# NYSDEC Spill Modeling

- GNOME – General NOAA Operational Modeling Environment.
- “Most probable” areas for oil accumulation.
- This modeling help us narrow down where to investigate.



EXERCISE SIMULATION

# Permanent Infrastructure



Boom Storage Reel- enclosed



Boom Storage Reel



Mobile Boom - Trailer

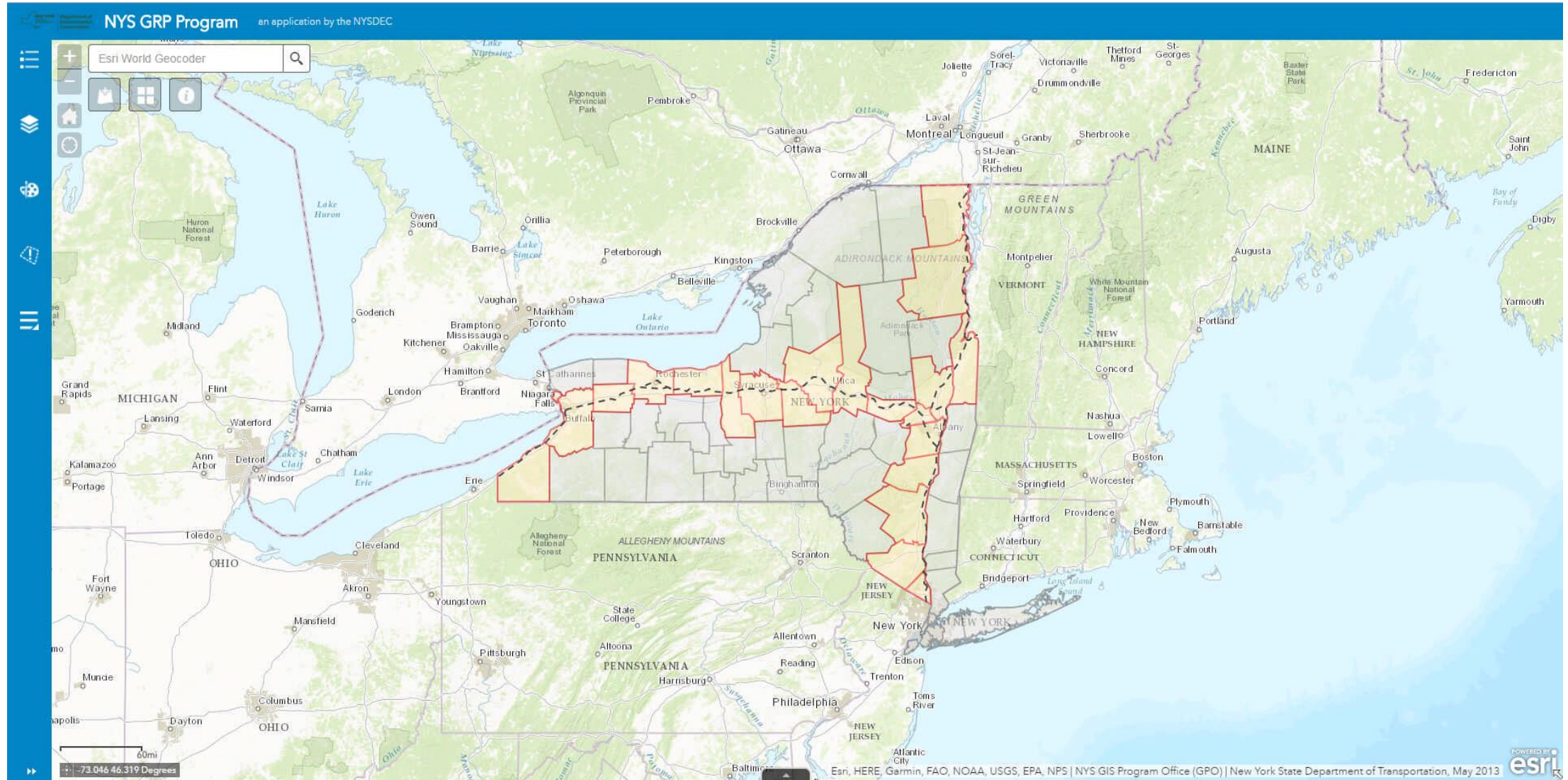




# GIS Online



# NYSDEC GRP Online Viewer



# NYSDEC GRP Online Viewer

NYS GRP Program an application by the NYSDEC

Esri World Geocoder

GRP Area QC292

PageName	QC292
PageNumber	7
MileMark	QC 292
County	ONONDAGA COUNTY
GRP_Title	SYRACUSE
GRPURL	<a href="#">More info</a>

Zoom to

Source: National W... ESRI



# NYSDEC GRP Online Viewer

The screenshot displays the NYS GRP Program online viewer interface. The top navigation bar includes the title "NYS GRP Program" and the subtitle "an application by the NYSDEC". A search bar labeled "Esri World Geocoder" is positioned in the top left. The main map area shows a geographical view of Onondaga Lake and surrounding urban areas, with a red line indicating a specific GRP location. A popup window titled "(1 of 5)" provides detailed information for the selected GRP:

Strategy Type: QC291-B	
Label	QC291-B
Length	50'
Intersection	LEY CREEK AT 7TH NORTH STREET
County	Onondaga
Response Strategy	STRATEGY - VERIFIED
Details	
GRP	QC 291
GRP Name	SALINA (WEST), ONONDAGA COUNTY
Site Specific Strategy	<a href="#">More info</a>
Water Body	LEY CREEK
Water Body Type	CREEK
Zoom to	***

The interface also features a vertical toolbar on the left with various map controls, a scale bar at the bottom left, and a coordinate display showing  $-76.15243.078$  Degrees. The bottom right corner contains the Esri logo and a list of data sources: Province of Ontario, Ontario MNR, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA | Source: National Weather...





## NYSDEC Inland Geographic Response Plans

Location specific plans developed to provide guidance for oil spill responses from crude by rail transportation.

Unique plans that differ from traditional GRPs by extending contingency planning to cover spills on land, in addition to surface water-based spills.

## Geographic Response Plans (GRP)

328 GRPs created for 21 Counties across NYS.

225 Oil Protection Strategies created for NYS.

Local first response agencies from each county participated in creation.

Designed and delivered spill response trailers to all 21 counties along the major rails.

Developed and presented training programs for spill response for each county.





# QUESTIONS





OBG | THERE'S A WAY

Thank You

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