

US EPA ARCHIVE DOCUMENT

Greater St. Louis Area Spill Response Strategies for the Mississippi River

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St. Louis, Missouri



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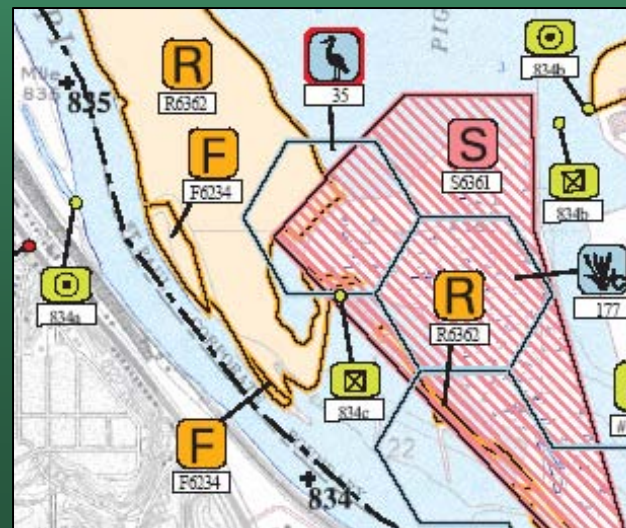
Overview



- **Response strategies background**
- **Setting: Upper Mississippi River in the Greater St. Louis Area**
- **Motivation for updating response strategies**
- **Process of response strategy development & updating**
- **Findings and conclusions**
- **Demonstration of response strategies CD**
- **Next steps, considerations, and questions**

Response Strategies Background

- Identify and field-assess locations where spill response/protection strategies could be employed to protect sensitive resources
- Strategies jointly identified by federal, state, regional agencies and private sector
- Incorporate into Inland Sensitivity Atlas (EPA Region 5)
- Tie to sub area contingency plan
- Provide for use by responders & planners
- **NOT a substitute for consultation, but rather a starting point for action**



Response Strategies Background



On the Upper Mississippi River (UMR), Area Response Strategies Have Been Created For:

- Twin Cities
- Quad Cities
- **Greater St. Louis**
 - Initial in 2006 (pre-SONS)
 - Revised 2008 (this presentation)

St. Louis Response Strategies

Study Area

Mississippi River:

Mile 201 (Mel Price Lock and Dam) to Mile 140 (Jefferson County line)

Focus on: Chain of Rocks/Chain of Rocks Canal Area



St. Louis Setting Part 1: Sensitive Resources



Sensitive Species

- Sturgeon (Pallid Sturgeon), others (fish, birds)



Water intakes

- Drinking Water: St. Louis, East St. Louis, Granite City, industrial/process water intakes



Sensitive Areas

- Side channels, managed areas, bird nesting areas, fish spawning and congregation areas



Recreational Areas

- Parks, historic sites, recreational fishing areas

St. Louis Setting Part 2: Potential Spill Sources



Oil Pipelines and Oil Storage



Vessels & Fleeting Areas



Hazardous Materials



**Other Urban/
Industrial Sources**

St. Louis Setting Part 3: River Dynamics/Considerations



**Swift current, large
volume**

**Confluence with
Missouri River**

Navigation

- Lock 27
- Chain of Rocks Canal
- Vessel traffic

Seasonal conditions



Motivation For Revisiting St. Louis Strategies



New data on sturgeon and other data sets

SONS 2007 experience

Look at areas downstream/ expand scope

Increase participation by resource managers and industry

Make more precise and descriptive

- Better identify areas to protect
- Find out what works, what doesn't in response
- Focus on Chain of Rocks/Chain of Rocks Canal area



St. Louis Response Strategies Development Process



Notified & recruited potential participants (May 2008)

Illinois DNR, Illinois EPA, Missouri DNR, Missouri DOC, US EPA Region 5, US EPA Region 7, USACE, US FWS, USCG-Sector UMR, USGS, St. Louis Water, American Water Company, Conoco-Phillips, Environmental Restoration, Greater St. Louis Sub Area Planning Committee, Others

Assembled data sets and preliminary maps (June 2008)

Sensitive Resources Meeting –Alton, IL (July 2008)

Conference Calls and Field Prep (August-September 2008)

Field Assessment (September 30-October 1, 2008)

Development of CD (October-December 2008)

CD Distribution (Began January 2009)

Field Work

September 30, 2008



Participants:

- IL EPA
- MO DNR
- US FWS
- US EPA
- USACE
- USGS
- Environmental Restoration
- American Water Company
- McKinzie Environmental
- UMRBA



TEAMS: North Boat, South Boat, Ground Crew

Outcomes and Observations



Seasonal and flow condition important

River source (MS vs. MO) is critical determinant for action

Side channels/slack water: may need to use upper portions for collection (not just exclusion) in order to protect downstream

Difficult to prevent materials from entering Chain of Rocks (to protect sturgeon/intakes), but:

- 1) There are some actionable areas that could be used (side channels, National Maintenance, Lewis & Clark/Cahokia Diversion Canal, Chain of Rocks Canal).
- 2) Manipulation of Lock 27 may only increase success somewhat, but may be worth doing & communication with USACE important.
- 3) Barges and other innovative approaches may be needed.

Access points: many available, but some not!

Notification is key for water intakes, they can adjust processes

Demonstration St. Louis Response Strategies CD



- Contents of CD
 - Overview maps
 - Strategy tables & photos
 - Supporting data
 - Tactics manual
 - User guide

■ **DEMO**

GOAL: Protect drinking water intake (Notify water supplier)

Site Number	Waterbody, River Mile	Site Name		
190	Mississippi River, 190.4	St. Louis Chain of Rocks Plant		
Strategy Type*	Boom Length	Land Access	Boat Access	
Oth.	n/a	N	N	

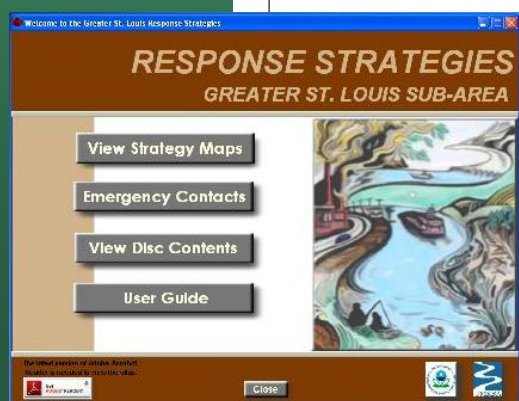
Strategy Implementation

Notify St. Louis Water Division Plant Operator (314) 592-8226 or Pumping Engineer (314) 592-8200. There may be no need for an on-water strategy. Very dangerous location due to swift currents and low water dam, use caution.

Site Access



Water intake towers #1 and #2.



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Mississippi River – Greater Saint Louis Response Strategies

Emergency Phone Numbers

National Response Center (NRC)	(800) 424-8802
STATE DUTY OFFICERS	
• Illinois	(217) 782-7860
• Missouri	(573) 634-2436
US Coast Guard Sector UMR	(314) 269-2332
US Department of the Interior	(218) 266-6155 (Illinois)
- US Fish & Wildlife	(303) 478-3373 (Missouri)
US EPA Region 5	(312) 353-2318
US EPA Region 7	(913) 281-0991
Illinois American Water	(800) 422-2782
- East St. Louis	(618) 874-2404
- Granite City	(618) 877-8322
City of St. Louis Water Division	(314) 592-8226 or (314) 592-8200
Jefferson County Water Authority	(636) 933-0106 or (636) 226-7485 (c)

Note: The development of response strategies does not replace interagency communication in a response event. Please ensure that appropriate federal, state, and local agencies are notified of a spill. Key emergency contacts for this stretch of the Mississippi River are noted above.

Next Steps



- Further distribution of CD (interim product)
- Revise if needed
- Incorporate into Inland Sensitivity Atlas (Illinois statewide update) and reference in St. Louis Sub Area Contingency Plan
- Use in planning, training, and response

Questions and Considerations



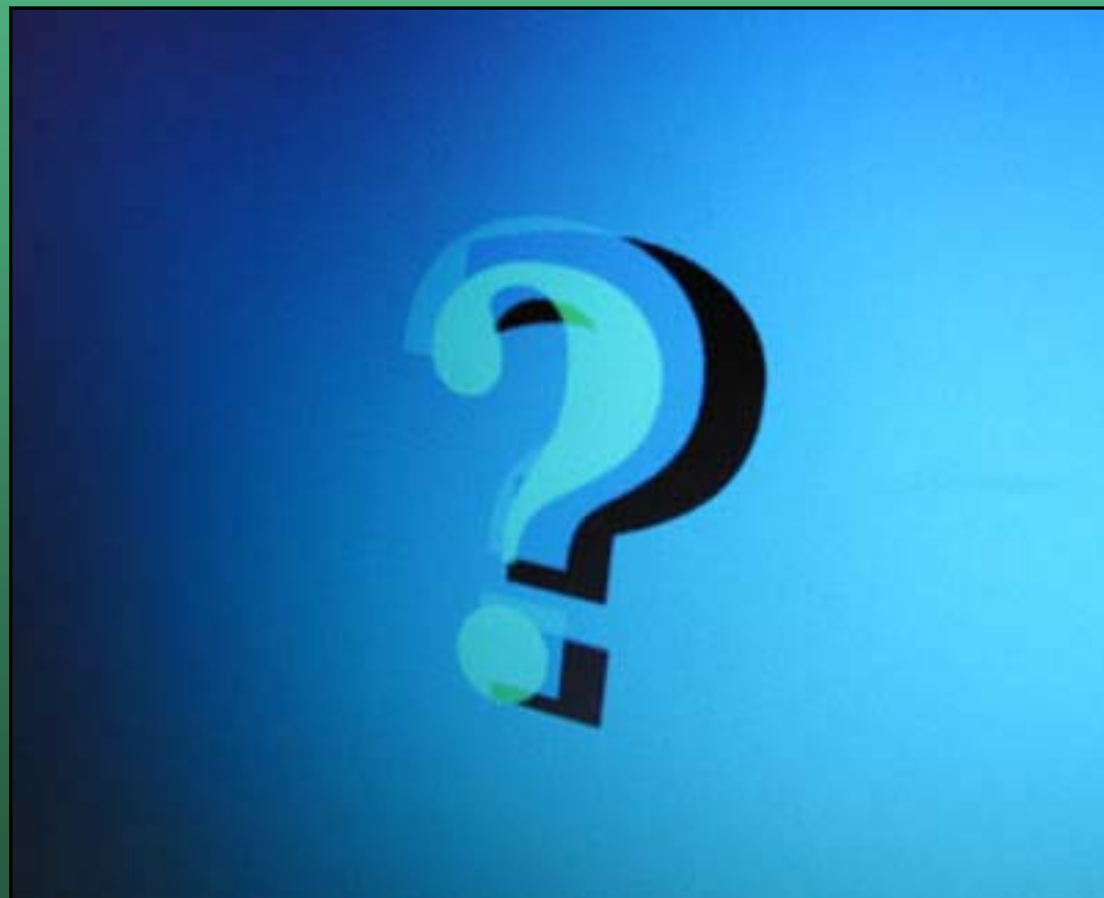
Success of conventional mechanical techniques is probably limited, are there other approaches that need to be considered/tested/implemented?
Innovative on-water techniques? Other ideas?

How can the strategies be improved? Do they need to be further revised?

How to successfully distribute and get feedback from potential users?

What does this effort tell us about the development and documentation of response strategies?

Your Questions?



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