Fall 2022 MS River Reconnaissance

Greater St. Louis Subarea Committee Meeting

December 5, 2022

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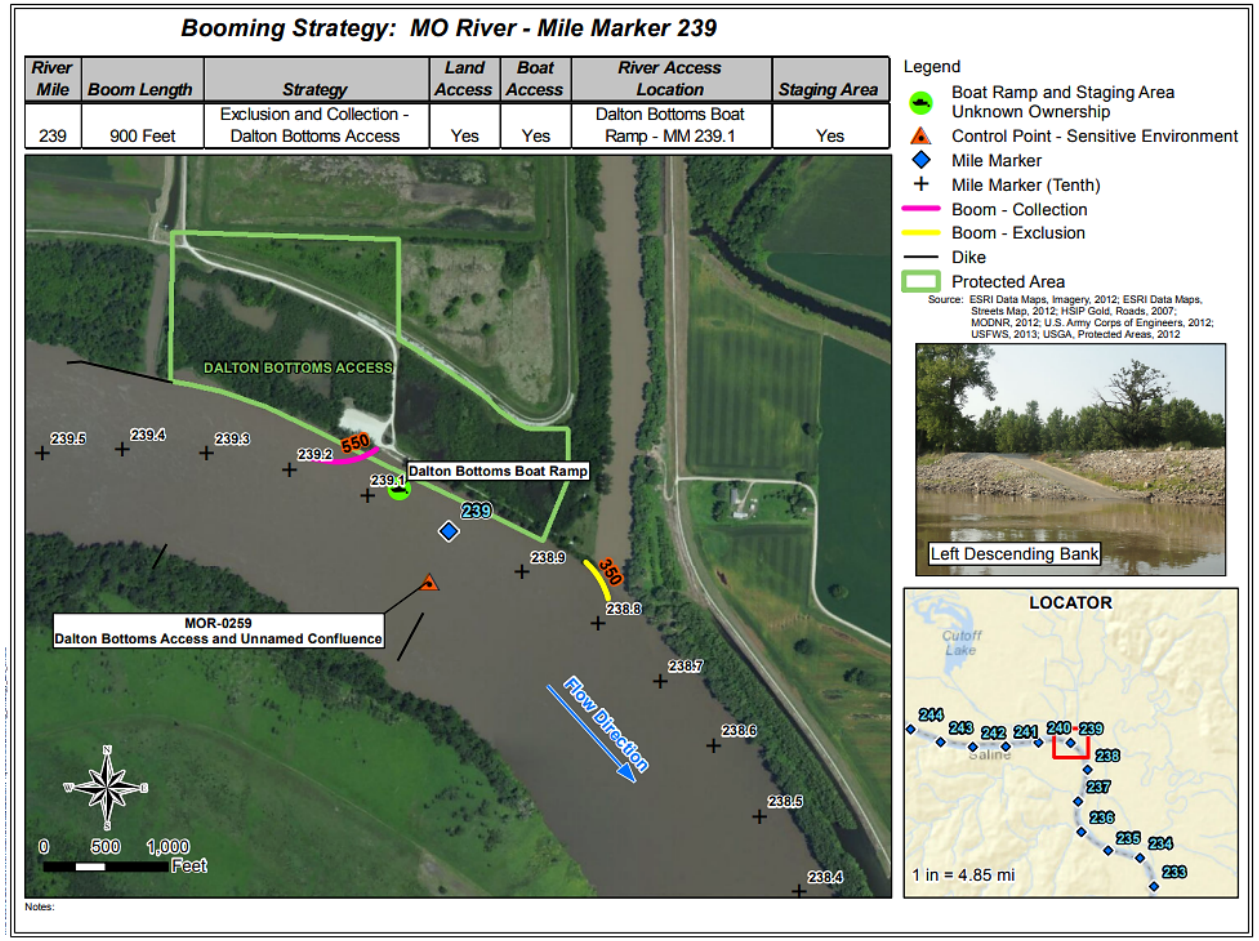
Tetra Tech, Inc. / START

Background on River Recon / Response Planning

- EPA Region 7
  - Started mobile data collection and Geographic Response Plans (GRP) in 2007
  - Recon of Missouri, Meramec, and Gasconade Rivers
- EPA Region 5 / Upper Mississippi River Basin Association (UMRBA)
  - GRPs for UMR Pools north to Minneapolis, St. Croix River, Lake Michigan, Lake Superior, etc.
- EPA Region 4 looking to do more
- Greater St. Louis and Great Rivers Subareas do preliminary work in early/mid 2020 (land-based recon and planning meetings)
- New Mobile Data Collection forms developed and vetted
- New web map application developed for Subareas touching MS River

Purpose: Update Existing Spill Response Strategies + Develop New Strategies (for certain segments of MS River)



GOAL: Protect major waterfowl stopover marsh and wild celery beds near openings to Potter's Marsh.

Site Number	Waterbody, River Mile	Site Name	
527a	Mississippi River 527 LDB	Potter's Marsh	
Strategy Type*	**Boom Length**	**Land Access**	**Boat Access**
Exc.	500	Y	Y
Strategy Implementation			
Use large section of hard boom to exclude spilled product from Potters Marsh backwaters. May need air boat in low water conditions due to aquatic vegetation. Good access and staging here and at Mickelson's Landing at RM 524 LDB.			
Site Access			
Opening at Thomson Causeway boat ramp. Turn west from IL Hwy 84 onto Main St in Thomson. Turn south onto Lewis Ave at US ACE marked turnoff, follow signs to boat ramp.			
UTM z15 Y: 4648624 **Latitude:** 41.953504		**UTM z15 X:** 738636 **Longitude:** -90.120763	

View of marsh entry where exclusion boom should be set

View of the open marsh; note heavy aquatic vegetation

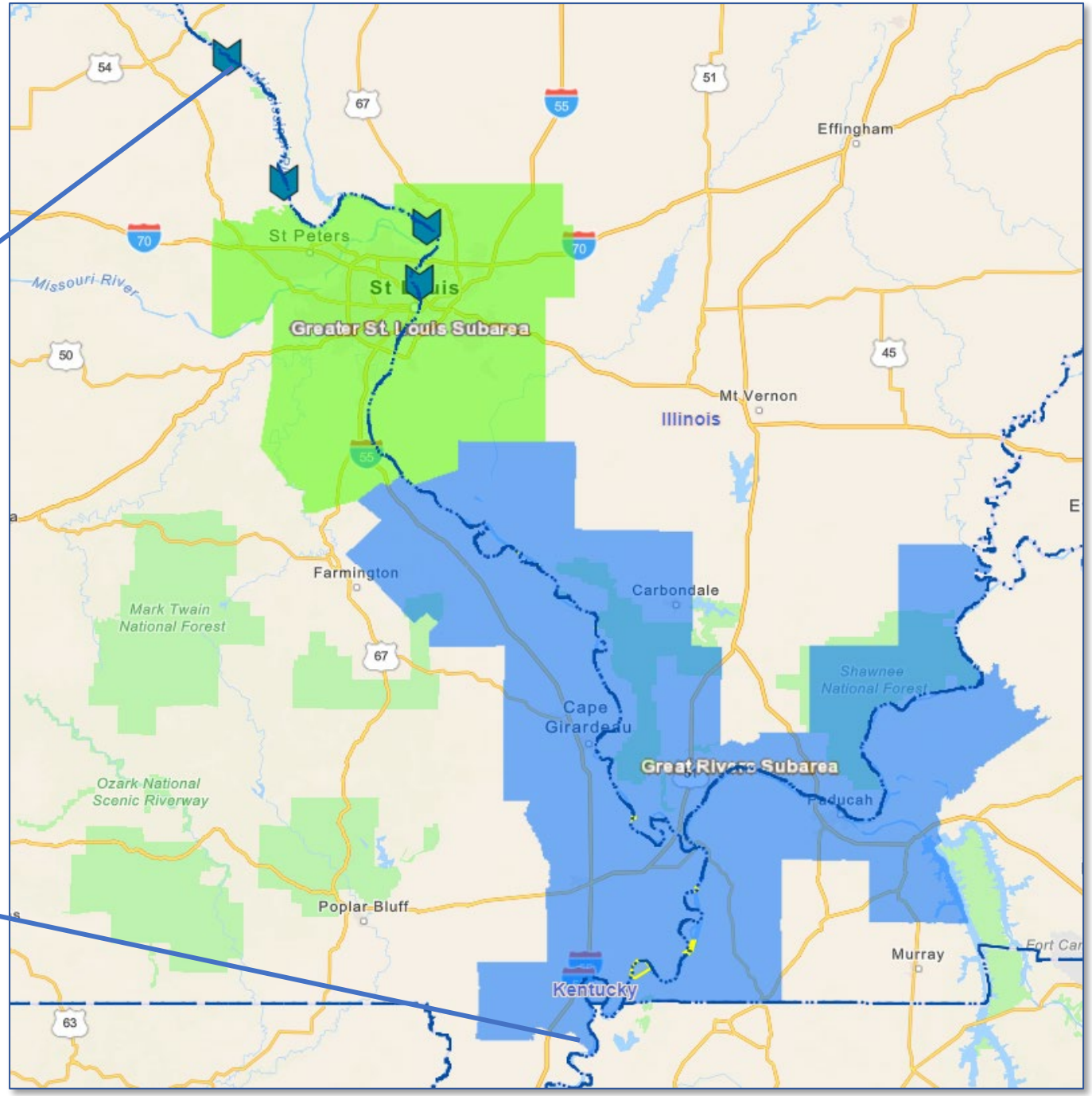
Scope: 357 River Miles

MS River Mile 273
(Clarksville, MO)

to

MS River Mile 869

(New Madrid County
South Boundary)

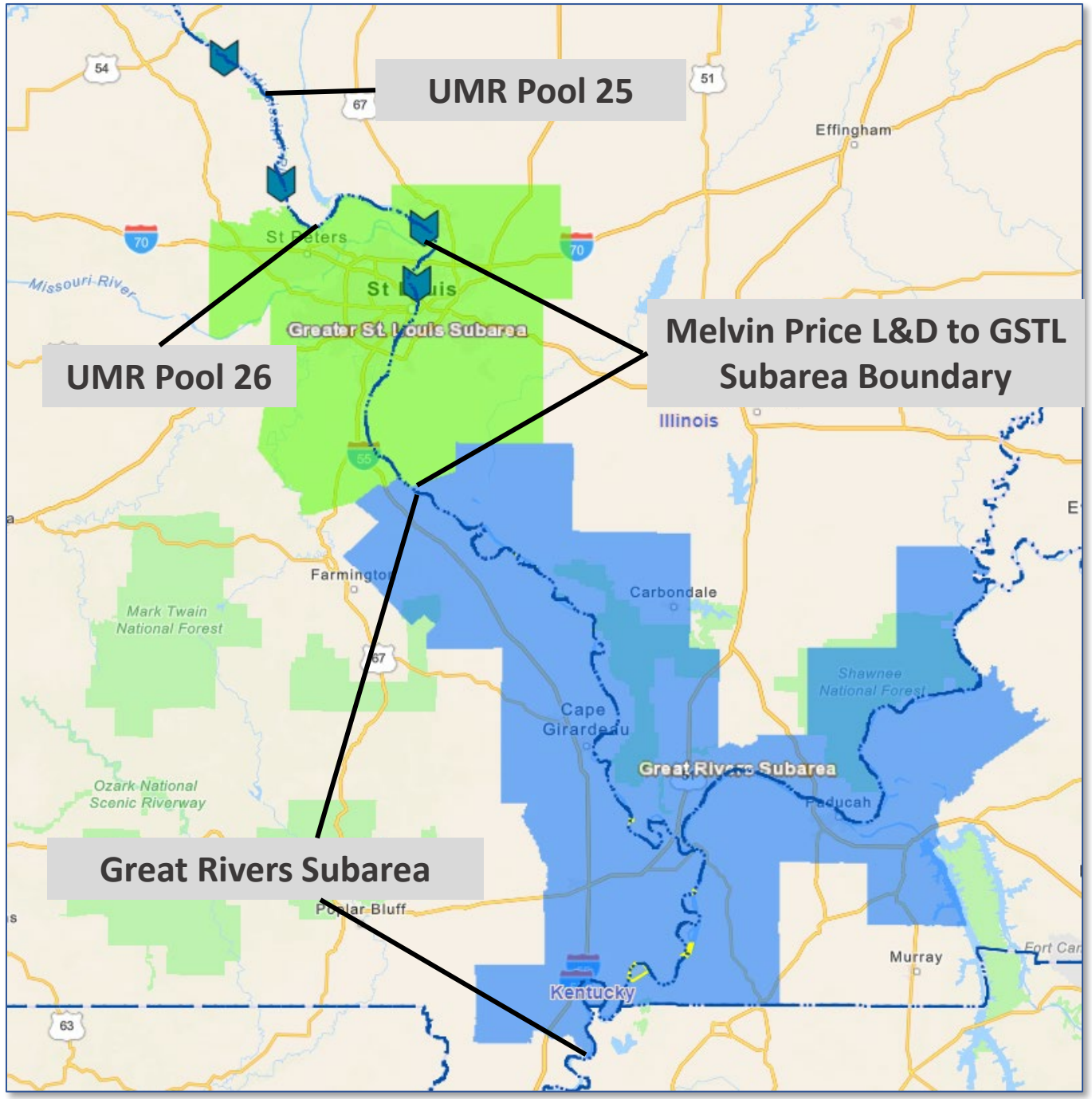


Strategies In Development

- UMR Pool 25 – 22
- UMR Pool 26 – 38
- Great Rivers Subarea ≈ 77

Existing Strategies

- MP L&D to Greater STL Subarea Boundary – 39



Participating Organizations & Key Players

- US EPA Regions 4, 5, and 7
- USCG Sector UMR, Marine Safety Unit Paducah, Sector Ohio Valley, and Sector Lower Mississippi River
- MoDNR and MDC
- KY DEP and KY DNR
- IL EPA
- Jersey County Emergency Management Agency (EMA)
- UMRBA
- USFWS (refuge managers and field office staff).
- US Army Corps of Engineers
- Cape Girardeau County Sheriff's Office, Cape Girardeau Fire Department
- St. Charles County EMA
- Tetra Tech, Inc.
- Environmental Restoration, LLC

Project Timeline for Major Activities

- July 27th – Initial C/O meeting among EPA Regions and USCG Sectors
- Early August – Outreach to states and federal partners
- Mid-August – Personnel & Equipment Survey
- Mid-September – Build/deploy River Recon Trip Scheduler website
- Late September – Ongoing outreach and trip scheduling
- Early October – Develop MS River Map Book (360 river miles)
- Early October – Develop field map for off-line use and QC app for desktop review/editing of field data
- Mid-October – Data collection training (UMRBA and Tetra Tech)
- Mid-October – River recons initiated

Project Challenges

- Staffing levels at some state agencies prohibited full participation
- Limited time to complete recon activities
- Schedule conflicts and cancellations
- Low river levels and need for ongoing evaluation of boat ramps
- Inclement weather during first recon trips
- iPad issues.

Results by the Numbers

- 3 Recon Trips Completed
  - 62 River Miles covered
  - All south of Mel Price L&D within Greater STL Subarea
  - Missed 2 locations near Chain of Rocks (low water)
  - USCG Sector UMR Boats/Operators
  - MDC, USFWS, IL EPA, R7 EPA, UMRBA, Tetra Tech
- 47 River Miles of land recon completed (94 land miles)
  - UMR Pool 26 to MO River Confluence
- 2 recon trips aborted due to high winds
- 7 additional trips postponed due to low water

Results by the Numbers (cont.)

- Target Data Collected
  - Sensitive Environments – 32
  - Pipeline Crossings – 24 (12 pipelines)
  - Water Intakes – 8
  - Facilities – 4
  - Outfalls – 2
- Control Point Data Collected
  - Exclusion – 19, Diversion – 7, and Contain/Collection – 21
  - Boat Ramp / Staging Areas – 10
- 133 photos.

Example Recon Locations

- National Maintenance and Repair (RM 197 LDB), Harford, IL
- Containment & Collection Point
- Staging Area
- No boat ramp
- Consulted OSRO on use of this and similar sites for containment/collection

- National Maintenance and Repair - landside recon
- Inside and outside gates
- Several nearby facilities
- NMR Plant Manager and others very cooperative

Anhydrous Ammonia Barge Loading (water side)

Anhydrous Ammonia Pipeline (land side)

Anhydrous Ammonia Pipeline (at LDB)

Next Steps

- Editing and Quality Control using MS RR 2022 Web Map
  - Incorporate 2020 land recon information
  - Combine planning info and field data into a single “record“
  - Review/organize photo logs
- Follow-up on a few field observations (i.e., verify sensitive environments, facility closures)
- Review certain booming strategies
- Finalize and share data
- Determine how to display data in “shared“ web map applications
- Re-format for inclusion in other plans
- Prepare for Spring 2023 recon.