St. Louis Riverfront – Meramec River Ecosystem Restoration Feasibility Study

Matthew Vielhaber
U.S. Army Corps of Engineers
27 September 2018
**STUDY AREA**

• Meramec River Basin
  – Portions of Jefferson and St. Louis Counties
  – Approx. 75 RM of Big River (flows N) & 50 RM of Meramec River (flows E)

• Ecologically significant
  – 5 Federally listed Threatened & Endangered freshwater mussels

• Big River is an active operable unit of EPA Superfund site
  – Managed by USEPA
  – Draft Remedial Investigation (RI) scheduled to be completed in 2018
  – Record of Decision (ROD) scheduled to be completed in 2019
COLLABORATIVE PARTNERS

- **MDNR** – Non-Federal Sponsor; co-trustee of Natural Resources Damage Assessment and Restoration (NRDAR) funds
- **USEPA** – Working on a Remedial Investigation/Feasibility Study (RI/FS) along the Big River within Jefferson County
- **USFWS** – NRDAR co-trustee; ESA, FWCA consultation, cooperating agency
- **TNC** – Technical input; working with MDNR on this study and watershed-level studies
- **MDC, NRCS, HUD, Health agencies, SWC Districts, East-West Gateway, Urban Waters Federal Partnership (UWFP), and several other NGOs**
Collaboration is key to expanding and leveraging efforts already underway within the Meramec Watershed.
TENTATIVELY SELECTED PLAN

- Total Project First Cost approximately $78.8M
  - 12 bank stabilization locations
  - 6 sediment capture locations
  - 6 bed collector locations
  - 5 rock riffle structures
  - 9 excavation structures
  - 18 reforestation areas
# PROJECT ACHIEVEMENTS

## Improved Functions and Processes
- Reduce excess suspended and bedded sediments
- Provide a more natural channel
- Provide habitat for threatened species and other wildlife
- Improve quality and complexity of aquatic habitat
- Provide food and refugia for juvenile fish
- Promote development of structurally diverse riparian vegetation
- Expand and connect riparian habitat

## Restoration Features
- Longitudinal peak stone toe protection (LPSTP)
- Riverbank grading
- Rootwads
- Live Siltation
- Excavation
- Riparian plantings
- Bedload collectors
- Rock riffles
- Sediment capture basins
- Tree Revetment
- Barbs and Bendway Weirs
WHERE WE ARE

SCOPING
1
ALTERNATIVES MILESTONE
June 2016

ALTERNATIVE EVALUATION & ANALYSIS
2
TENTATIVELY SELECTED PLAN (TSP) MILESTONE
February 2018

FEASIBILITY-LEVEL DESIGN
3
AGENCY DECISION MILESTONE (ADM)
September 2018

CHIEF’S REPORT
4
CHIEF’S REPORT
November 2019

WE ARE HERE

TENTATIVELY SELECTED PLAN
ADM
AGENCY RECOMMENDED PLAN
WHAT NEXT

3. FEASIBILITY-LEVEL DESIGN
   AGENCY DECISION MILESTONE (ADM)
   September 2018

4. CHIEF’S REPORT
   CHIEF’S REPORT
   November 2019

5a. AUTHORIZATION
5b. APPROPRIATION

6. CONSTRUCTION

PUBLIC SUPPORT

PLANNING STUDY COMPLETE
Meramec River & Big River
Urban Waters Federal Partnership

Matthew Vielhaber
Urban Waters Ambassador
27 September 2018
MERAMEC RIVER BASIN

ST. LOUIS, MO

Mill Dams
USGS_Gages
Streams
HUC Watersheds
Municipalities
State Owned Land

Legend:
- Mill Dams
- USGS_Gages
- Streams
- HUC Watersheds
- Municipalities
- State Owned Land

Note: The map is not georeferenced, nor is it provided in any scale or format. It is intended for informational purposes only.

[Map Legend and Annotations]

Disclaimer: The information presented in this map is not georeferenced, nor is it provided in any scale or format. It is intended for informational purposes only.

[Additional Map Information]
MERAMEC & BIG RIVERS PROJECT

• Located southwest of St. Louis, Missouri
• 12 counties
• 360 linear miles of waterway
• Project flows into the Mississippi River

  Big River → Meramec River → Mississippi River

• Ecological significant
• High recreational value (canoeing, swimming, fishing)
• Old Lead Belt
GOALS OF THE UW FEDERAL PARTNERSHIP

• Break down federal program silos to promote more efficient and effective use of federal resources through better coordination and targeting of federal investments.

• Recognize and build on local efforts and leadership, by engaging and serving community partners.

• Work with local officials and effective community-based organizations to leverage area resources and stimulate local economies to create local jobs.

• Learn from early and visible victories to fuel long-term action.
UWA FOCUS AREAS

• Coordination between Federal partners
  → Break down silos and facilitate collaboration

• Resource Alignment and Community Support

• Public Education and Outreach
PADDLE YOUR PARKS

• Program Objectives:
  • Increase awareness;
  • Give students responsibility for impact on environment;
  • Build bridges between classroom learning and nature;
  • Improve public health awareness; and
  • Challenge students to learn the importance of communication, respect, and community

<table>
<thead>
<tr>
<th>Time</th>
<th>GROUP #1</th>
<th>GROUP #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am - 9:30 am</td>
<td>Travel to Site</td>
<td></td>
</tr>
<tr>
<td>9:30 am - 10:00 am</td>
<td>Welcome / Introduction &amp; Orientation</td>
<td>Wetland Labs</td>
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<tr>
<td>10:00 am - 10:30 am</td>
<td>Safety Briefing</td>
<td>Safety Briefing</td>
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<tr>
<td>10:30 am - 11:15 am</td>
<td>Canoe</td>
<td>Wetland Labs</td>
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<tr>
<td>11:15 am - 11:45 am</td>
<td>Lunch (Bring Your Own)</td>
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<tr>
<td>11:45 am - 12:15 pm</td>
<td>Wetland Labs</td>
<td>Canoe</td>
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<tr>
<td>12:15 pm - 1:00 pm</td>
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<tr>
<td>1:00 pm - 1:30 pm</td>
<td>Wrap-up/Class Photos</td>
<td></td>
</tr>
<tr>
<td>1:30 pm - 2:00 pm</td>
<td>Travel from Site</td>
<td></td>
</tr>
</tbody>
</table>
PADDLE YOUR PARKS

• Land-based activities/labs:
PADDDLE YOUR PARKS

• On-water education:
PADDLE YOUR PARKS

• Thanks to all the partners and volunteers!!!
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