RIVER RAISIN SEDIMENT REMEDIATION PROJECT GREAT LAKES LEGACY ACT



Scott Cieniawski, Project Manager, U.S. EPA

SITE HISTORY

- 1987: Raisin River designated a Great Lakes Area of Concern (AOC)
 - Nine (9) Beneficial Use Impacts (BUIs)
 - PCBs are the primary chemicals of concern
- 1997: Ford Implements Sediment Removal Action Under EPA Order
 - Approximately 20,000 cubic yards removed
- 1998-2002: USEPA and Michigan DEQ conduct Post-Remediation Monitoring
 - PCB contamination remains
 - Significant uptake of PCBs into fish and sediment dwelling organisms

SITE HISTORY

- 2010: USACE and EPA remove PCB contamination from below the federal navigation channel
 - Approximately 60,000 CY of PCB contaminated materials removed
- 2012: EPA and MDEQ complete GLLA dredging project
 - Approximately 78,000 CY of sediments removed
 - Additional PCB contamination identified at end of project
 - Interim remedy implemented (thin layer cap)
- 2013-2015: Site investigation and Design for remaining PCB Contamination
 - Thin layer cap remains in place and effective

SEDIMENT REMEDIATION ACTIVITIES



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EXTENT OF CONTAMINATION

- Impacts 1.5 acres
- Extends from nearshore to midpoint of federal navigation channel
- Extends up to 25' below the sediment surface
- Maximum PCB concentration of 75,000 ppm
- Limited downstream migration of contamination
- No on-going source

2016 WORK AREA



PROPOSED REMEDY AREAS



PROPOSED REMEDY

- Upper Shelf
 - Install sheetpile to prevent caving of bank
 - Remove all impacted sediments (8.2' removal)
 - Place sand cover to control residual contamination
- Transition Area and Navigation Channel
 - Dredge and Cap
 - Remove 10' of impacted sediments
 - Place Engineered Cap to Prevent Migration of remaining contamination





ADDITIONAL REMEDY DETAILS

Cap designed to withstand direct impacts of ships

- Includes evaluation of potential impacts from ship traffic at new Port of Monroe docks.
- Top of cap in Navigation Channel will be 4' to 6' below the authorized navigation depth
- Modeling indicates 600 year active life for cap

ENVIRONMENTAL MONITORING

 Real-time, constant water quality monitoring during dredging

 Real-time, constant air quality monitoring during dredge material processing

Long-Term Monitoring in Perpetuity

TRANSPORTATION ROUTE



TENTATIVE SCHEDULE

- May 2016: Sheetpile wall installed
- May 2016: Mobilize to site
- June 2016: Dredging, Processing, and Transport Starts
- September 2016: Dredging Complete
- September 2016: Capping Commences
- October 2016: Capping Complete
- November 2016: Demobilize from Site
- 2017: Initiate Long-term Monitoring

COORDINATING AGENCIES

- U.S. EPA
- Michigan DEQ
- U.S. Army Corps of Engineers
- Port of Monroe
- City of Monroe
- Ford Motor Company

CONTACT INFORMATION

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