



**SWL&P MGP SITE  
Superior, Wisconsin**

WDNR/SWL&P Team Meeting  
March 31 , 2022

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### Agenda – March 31, 2022

Safety Moment/Meeting Purpose	Greg
Upland Remedial Action Plan	Erin
Upland Key Issues	Brian/Steve L
Upland RD/RA Schedule	Brian
Proposed Path Forward - Upland	Brian
Sediment Remedy Discussions	Steve G
Next Steps/Action Items	Group Discussion

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## SWL&P's Mission Statement

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The MGP team's mission is to:

*“Complete the SWL&P MGP Remediation project in a manner that meets statutory requirements in a legally durable, cost-effective, and timely manner.”*

- The intent of this meeting is to take us closer to meeting this mission!

# Upland Remedial Action Plan

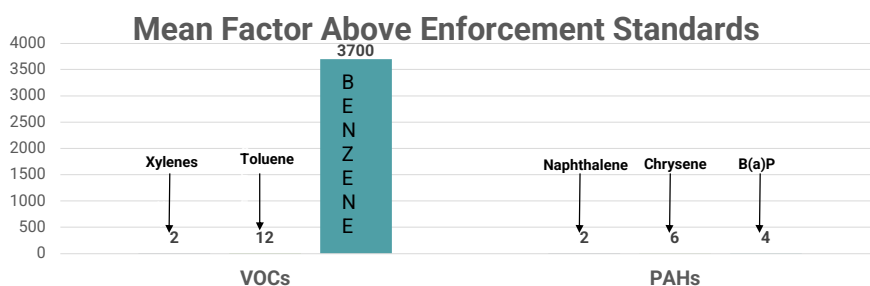
## Upland Progress

- ◆ 2001 – Present: Various Site Investigations Performed
- ◆ 2008: Excavation Completed near Former Discharge Pipe
- ◆ 2019: Site Investigation Report (SIR)
- ◆ 2020: Pre-Design Investigation (PDI)
- ◆ 2021: Upland Remedial Action Options Report (RAOR)
- ◆ 2021 – 2022: Upland Remedial Action Design (RAD)



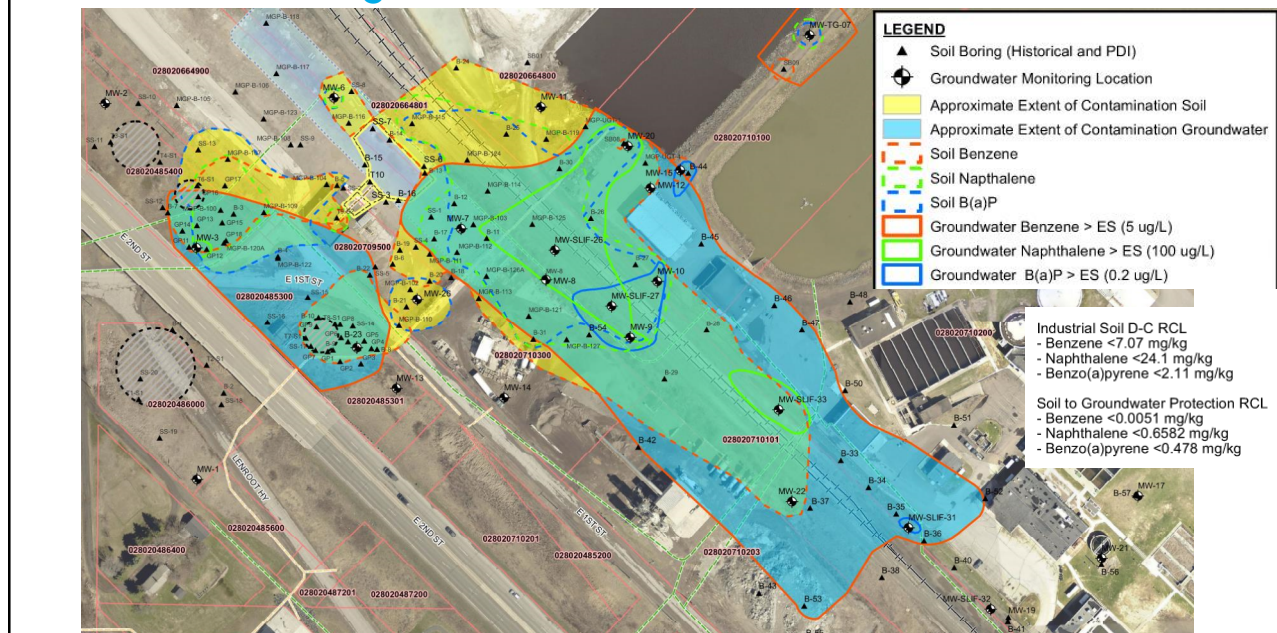
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## Benzene is Driving COC at the Site



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## Benzene Driving Limit of Contamination at the Site

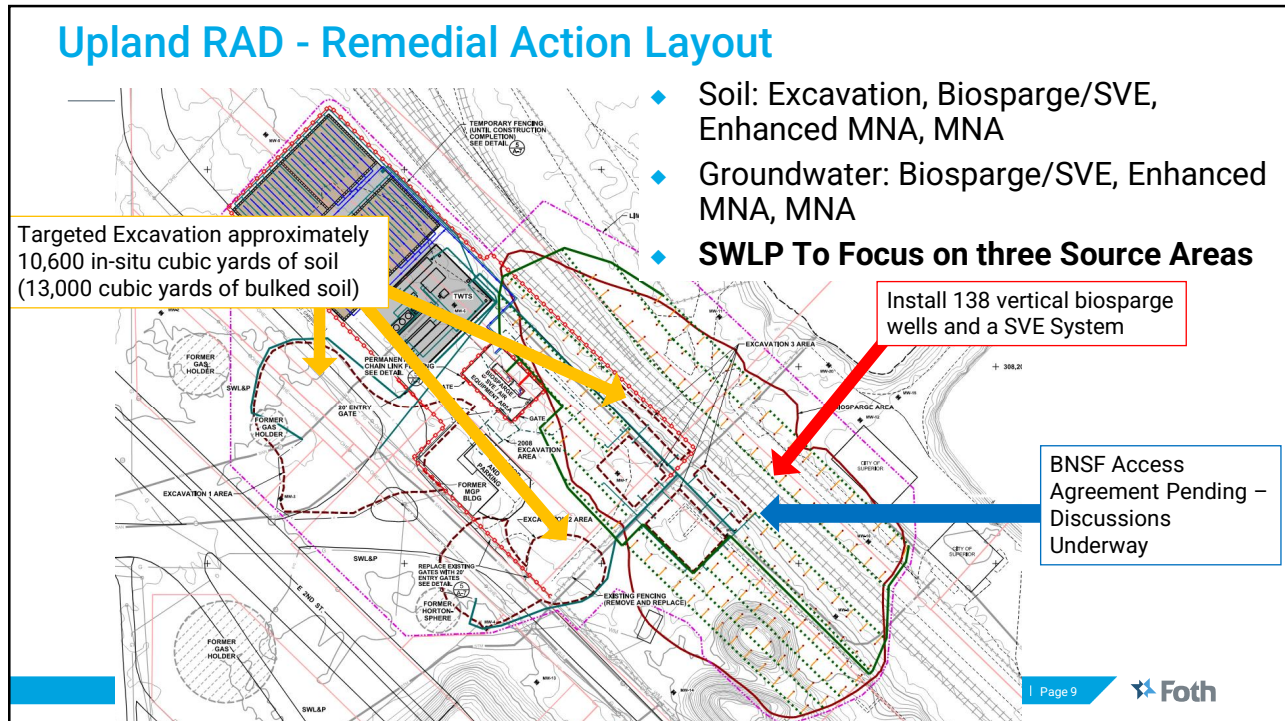


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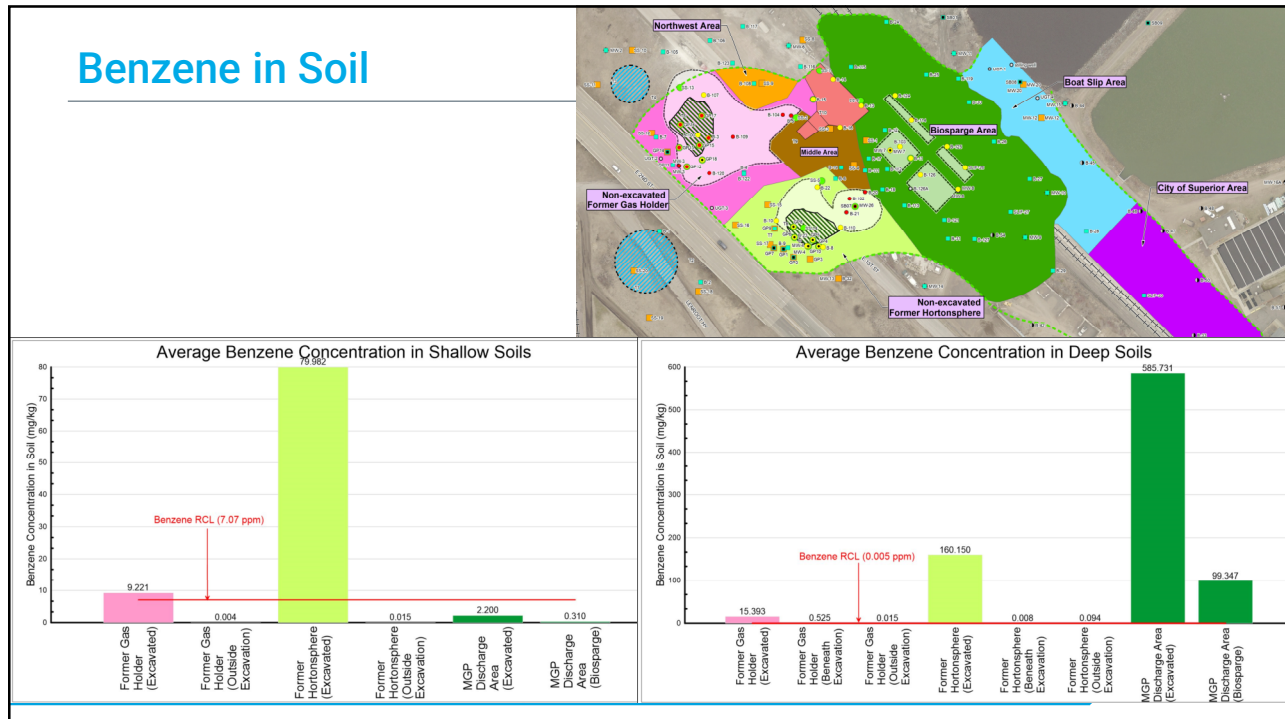
## Remedial Approach and Closure Strategy

- ◆ Planned Remedial Measures in 2023:
  - Excavate 10,600 in-situ cy of soil
  - Add ORC to backfill below water table
  - Backfill with low permeability materials
  - Biosparge/SVE construction with approximately 4 years of operation
- ◆ Long-term monitoring and contingency planning to verify closure criteria have been achieved to the extent technically and economically feasible.
- ◆ Performance Based Closure per design criteria and NR700/NR726 Approach.
- ◆ Continued natural attenuation that strives toward attainment of GW ES in a reasonable time period.

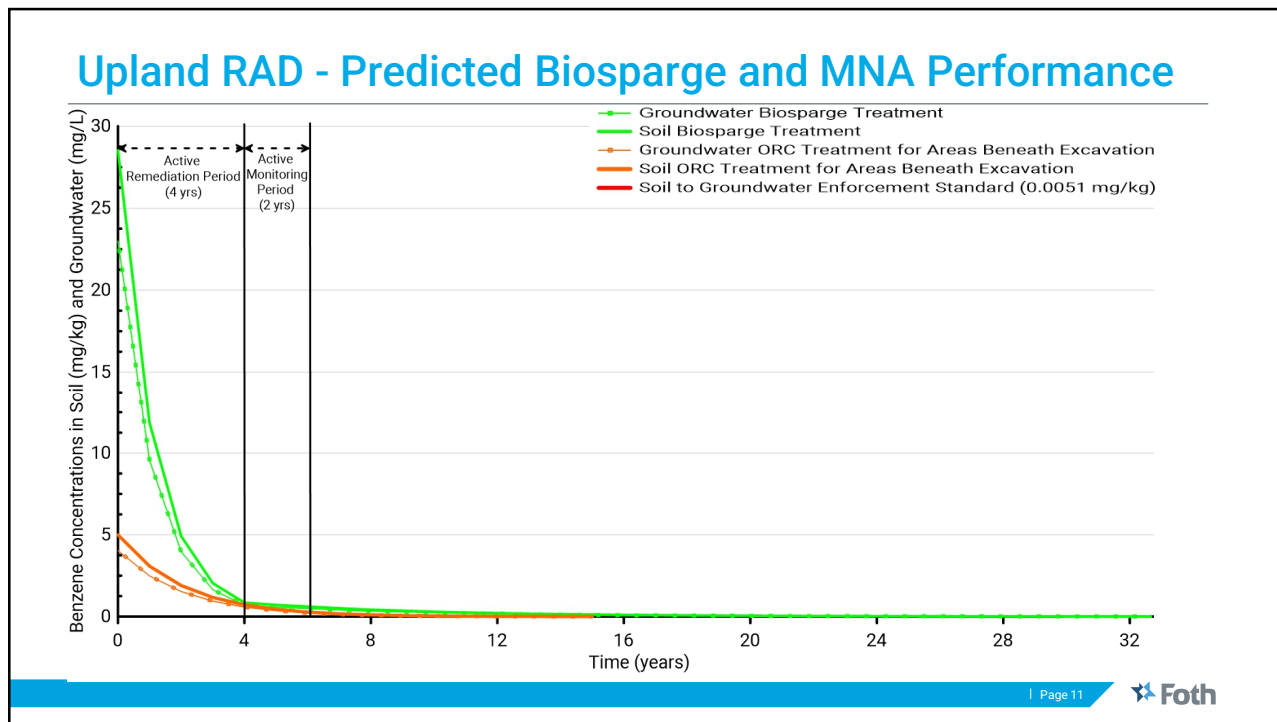
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# Key Issues

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## Key Issues

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- ◆ Target Concentrations for Upland RA Elements
  - Soil Excavation
  - Biosparge
  - Enhanced MNA
- ◆ Management of Excavated Soil including Soil from Utility Trenching
- ◆ Field Sampling Plan for Upland RA Elements
  - Soil Excavation (RAO 1)
  - Biosparge and Enhanced MNA (RAO 2)
  - Groundwater Monitoring to Evaluate MNA (RAO 3)

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## RD/RA Works to Meet Closure Requirements

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- ◆ Adequate Source Control
- ◆ Remedial Action to extent technically and economically feasible
- ◆ Groundwater compliance within a reasonable period of time
- ◆ Case Closure Obligations

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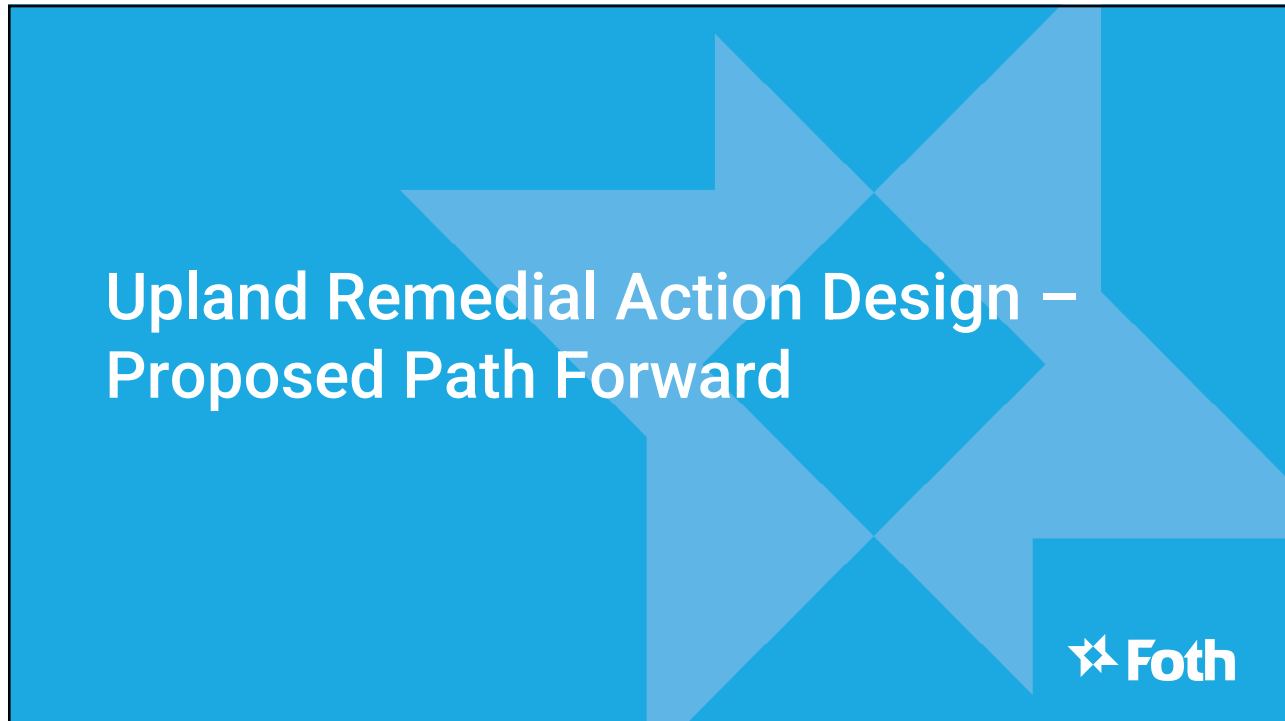
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### Current Upland Remediation and Monitoring Schedule

Task	Upland Design and Approval	Contractor Prep, Permitting, and Mobilization	Upland Remedial Construction	Construction Completion Report	Biosparge/SVE Operation	Upland Site Monitoring	Site Closure	
2022	Mar							
	Apr							
	May							
	Jun							
	Jul							
	Aug							
	Sep							
	Oct							
	Nov							
	Dec							
	2023	Jan						
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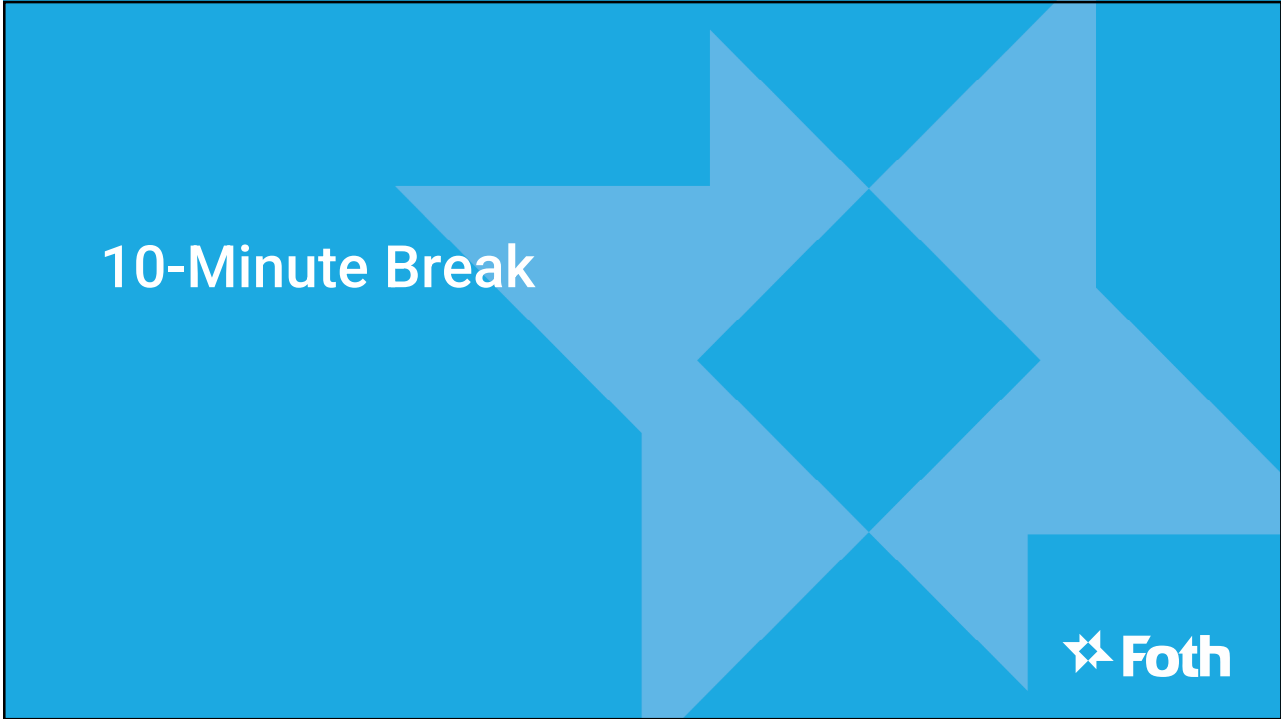
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### Proposed Path Forward for Design Completion

- ◆ Perform additional **Geotechnical and Environmental Investigation**
- ◆ Prepare **Draft Final RAD**
- ◆ Obtain **comments** from SWL&P and property owners and revise Final RAD
- ◆ Submit **WDNR GIS Registry** documentation to WDNR
  - Continuing obligation notification
- ◆ Obtain **conditional approval to construct RA** from WDNR
- ◆ Obtain **remaining permits** (City, WDNR, BNSF)
- ◆ Finalize **access agreements** from property owners
- ◆ Construction observation informs soil contingencies, if any.
- ◆ Groundwater monitoring confirms long-term remedial progress and informs contingencies, if any.

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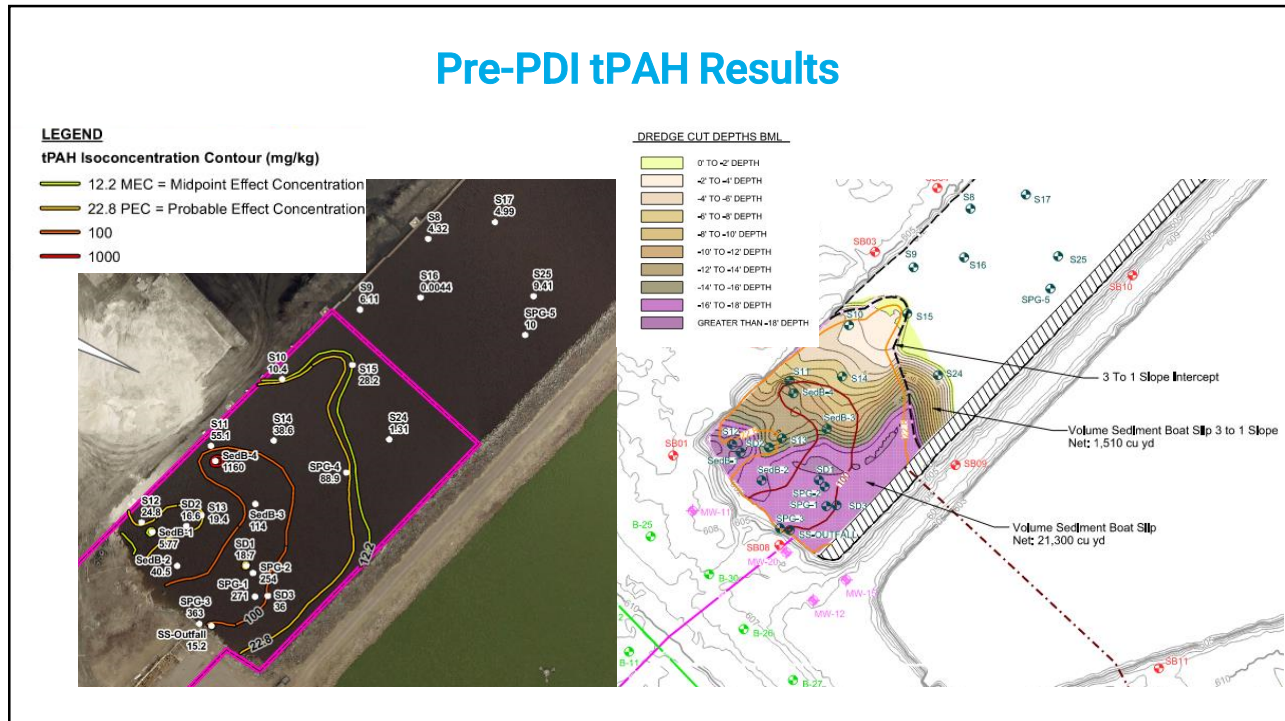
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## Regulatory Status

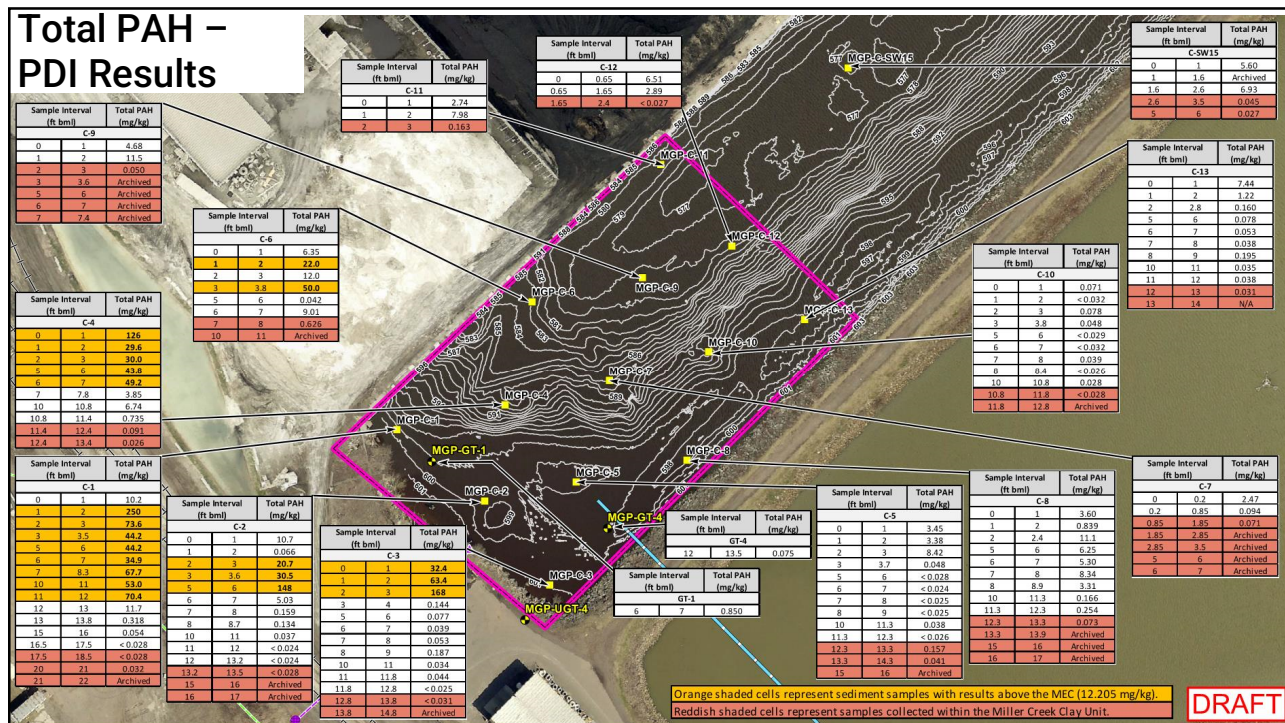
- ◆ WDNR Bureau of Remediation and Redevelopment Tracking System (BRRTS) #02-16-275446
- ◆ Environmental Investigations Ongoing since 2001
  - Site Investigation Report (Foth, 2019)
- ◆ Remedial Action Options Report (RAOR) Drafted by Foth in 2019
- ◆ SWL&P decided not to submit RAOR and conduct Pre-Design Investigation (PDI) to reduce uncertainties and refine RA cost estimate for both the upland and in-water portions of the Site.
- ◆ PDI conducted by Foth in 2020
  - Upland RAOR Finalized in February 2021, Upland Remedial Design (RD) close to completion
  - In-Water work was entered into GLLA in November 2021 and SWL&P is now preparing a RAOR

## Selection of Cleanup Values

- ◆ Considered:
  - CBSQGs- TEC, MEC, PEC
  - Precedents at sites in St. Louis River AOC
  - Precedents at sites in Wisconsin and other Great Lakes States
  - Expected continuing industrial waterway use and discharges
- ◆ Discussed tPAH PEC of 22.8 mg/kg vs. MEC of 12.2 mg/kg
- ◆ Delineation revealed little difference in remedial footprint
- ◆ SIR Approval Letter established use of MEC (June 2019)
- ◆ Remedial area delineated using Cleanup Value = 12.2 mg/kg tPAH

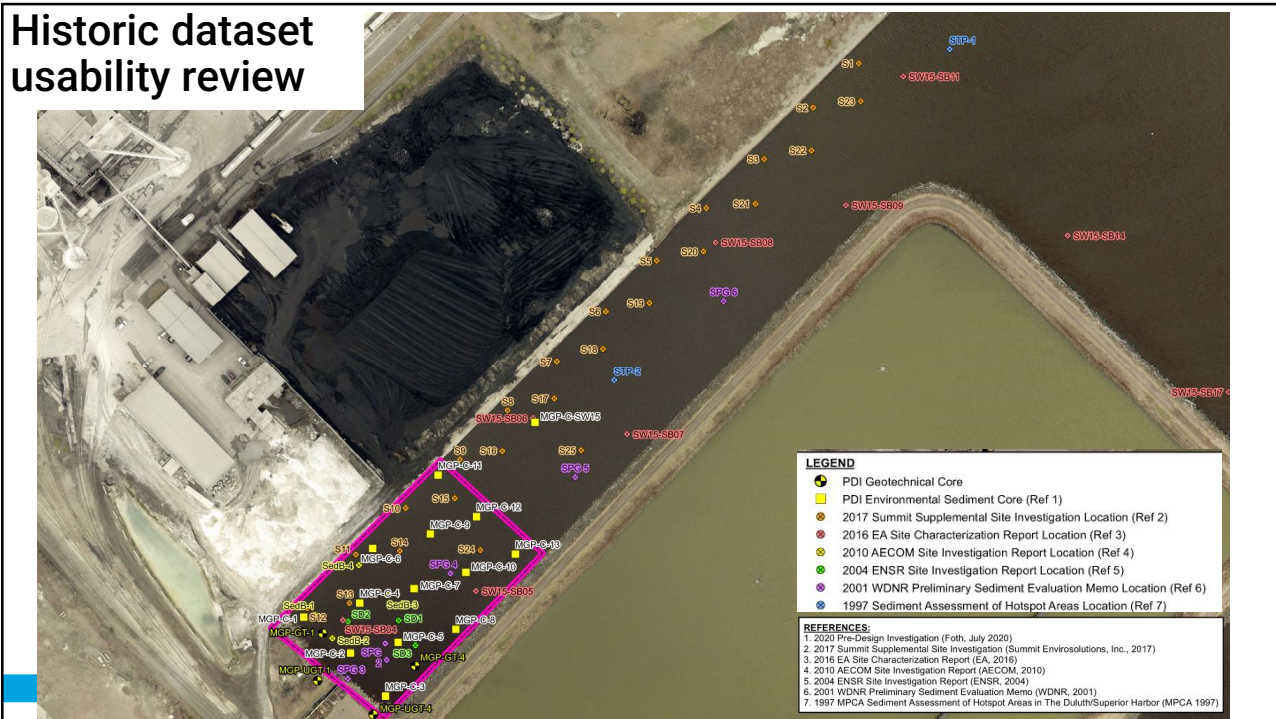


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## Historic dataset usability review



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## Historic dataset usability review

**In general, data collected from 1997 through 2010 were found to lack one or more necessary criteria to be used in an accurate and contemporary understanding of the distribution of Site COCs.**

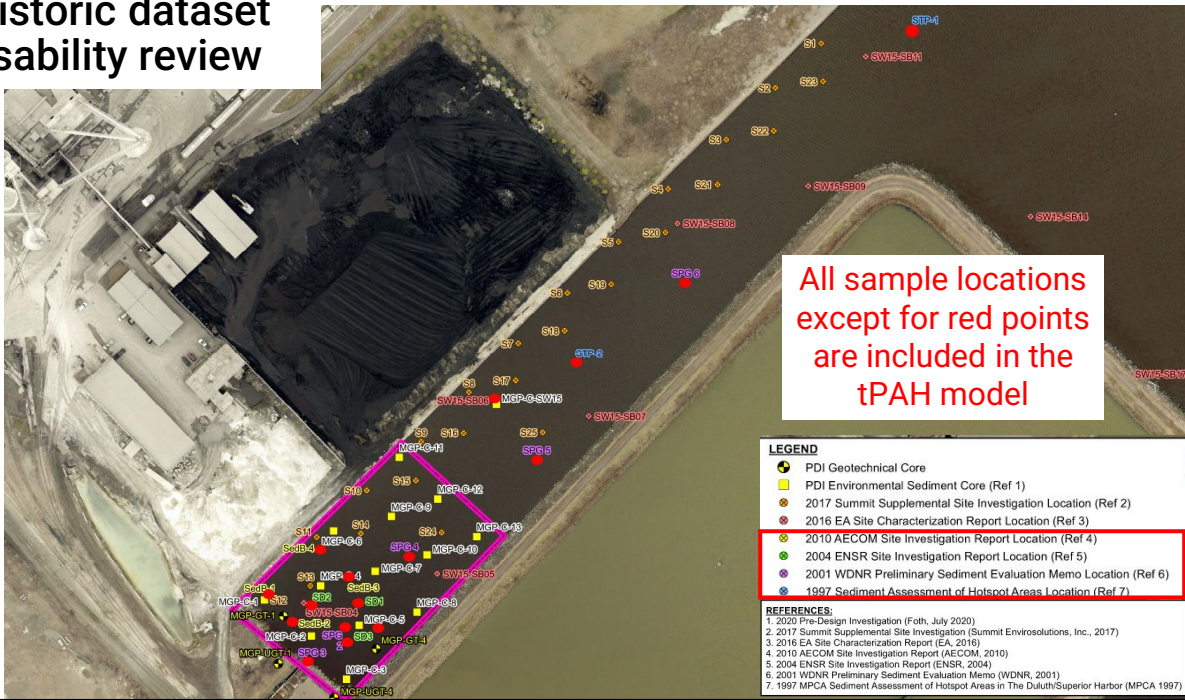
- 1997 MPCA Sediment Assessment of Hotspot Areas in The Duluth/Superior Harbor
- 2001 WDNR Preliminary Sediment Evaluation Memo
- 2004 ENSR Sediment Investigation Report
- 2010 AECOM Sediment Investigation Results Report

**The vertical datum and information provided in the post-2010 studies contained verifiable vertical elevation references and were used in the EVS model.**

- 2016 EA Site Characterization Report
  - With one exception, all locations SW15-SB04 through SW15-SB11 and SW15-SB14 were used (SW15-SB06 was replaced by MGP-C-SW15) as it reflects current conditions at this same location.
- 2017 Summit Supplemental Site Investigation Report
  - All locations S1 through S25 were used for interpolation of the tPAH extent and volume.
- 2020 Foth PDI Sediment Investigation
  - All locations (MGP-C-1 through MGP-C-13 and MGP-C-SW15) were used for interpolation of the tPAH extent and volume.

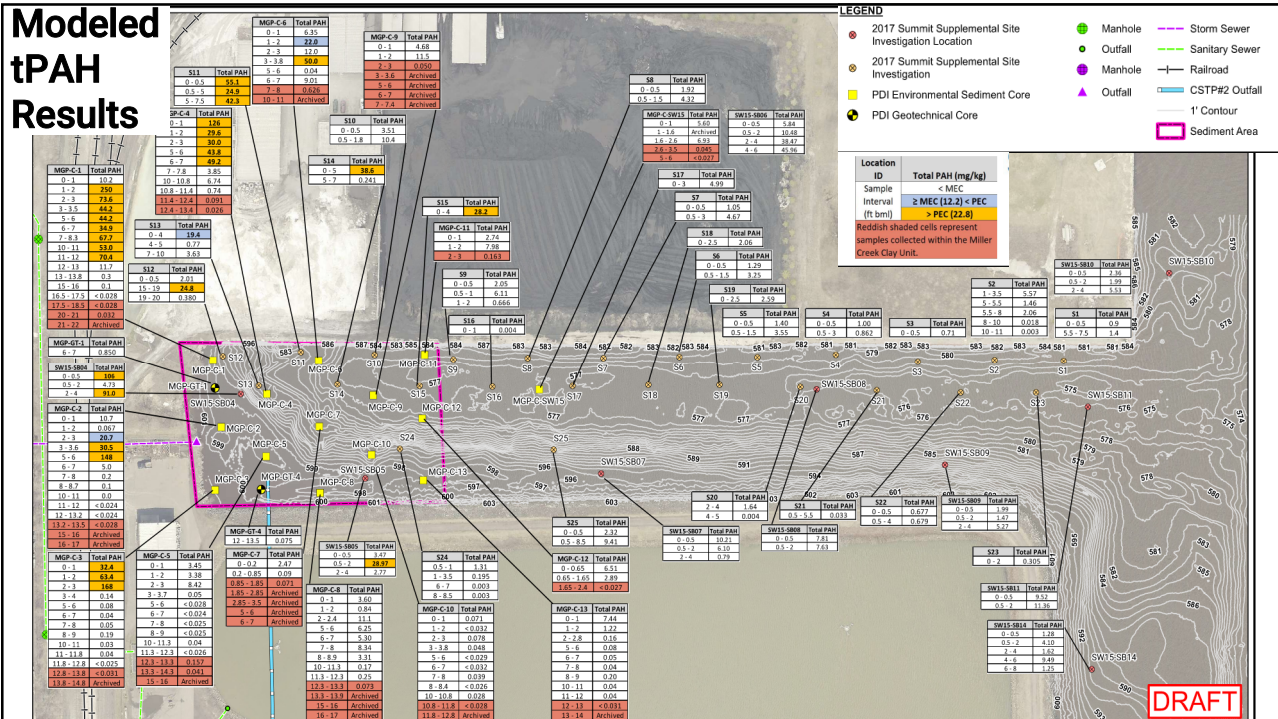
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# Historic dataset usability review

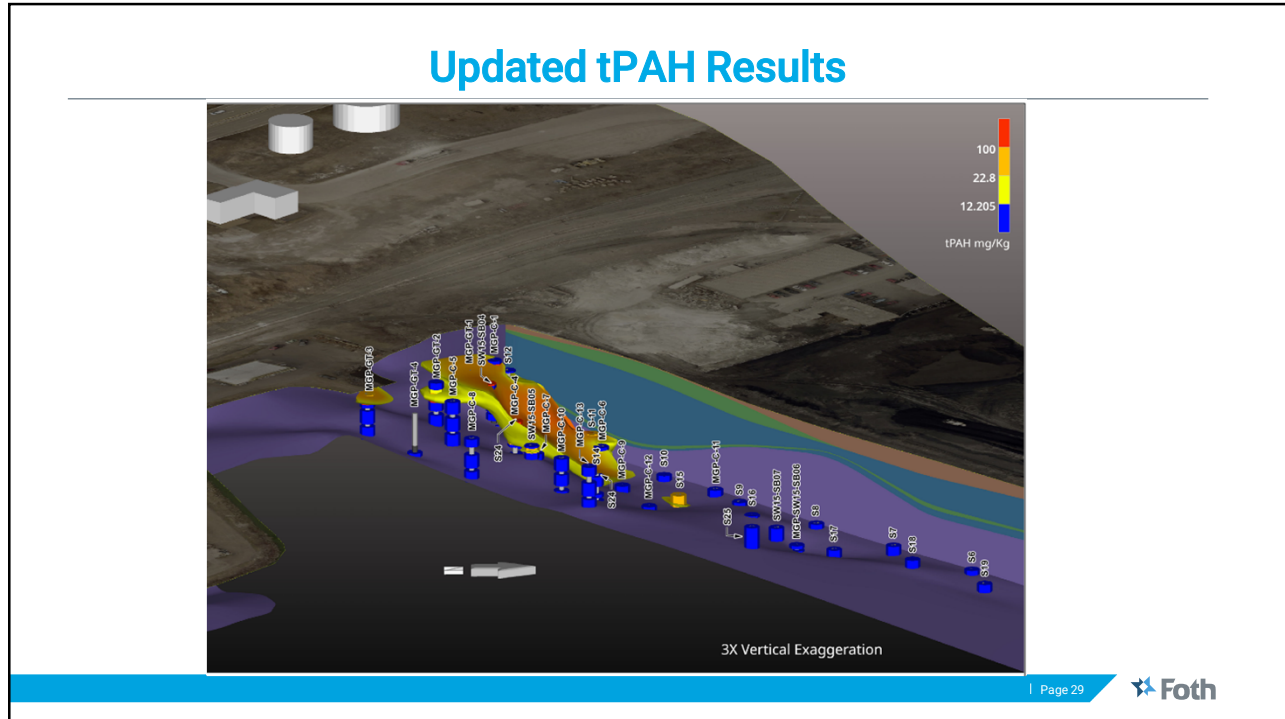


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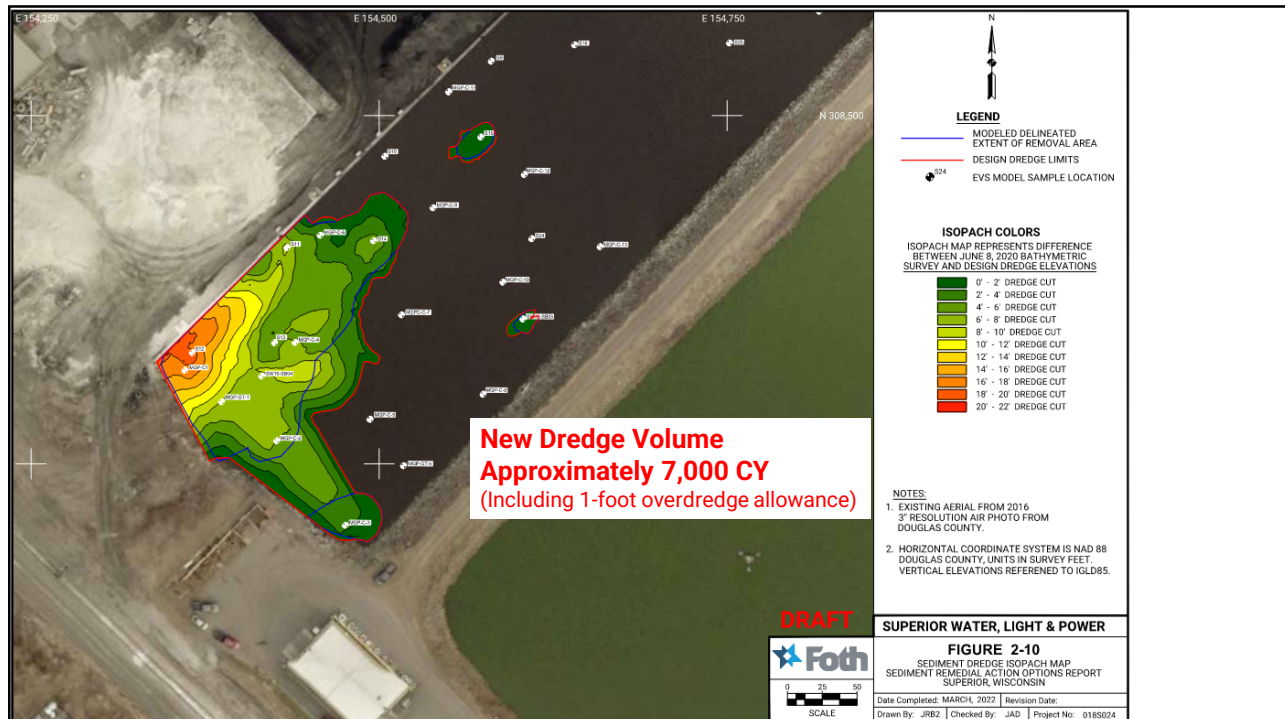
# Modeled tPAH Results



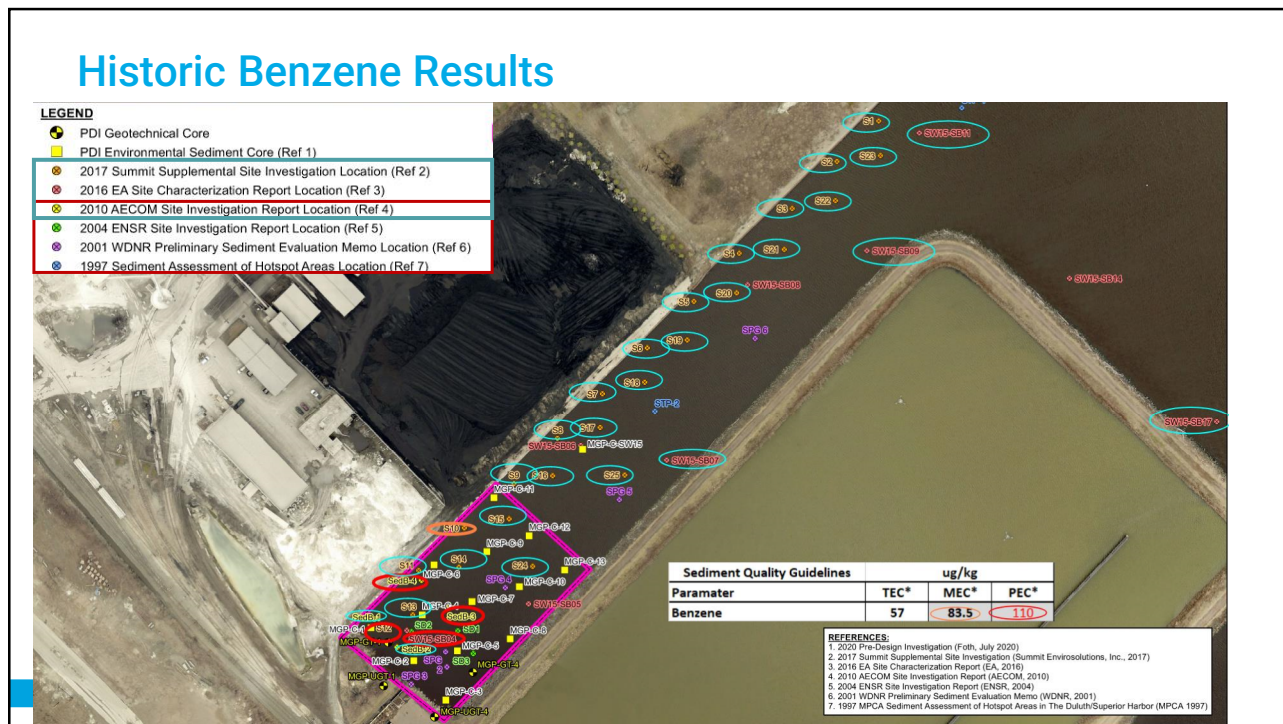
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## In-Water Review Schedule

April 18, 2022	Target date for start of Agency review of Draft RAOR
June 17, 2022	Comments received (60 days)
July 10, 2022	Final RAOR submitted for Approval
July 31, 2022	RAOR approval
September 2022	30% RA Design Check-in
December 2022	60% RA Design submittal
February 2023	Final RA Design submitted for review
April 2023	Comments received on Final RA Design (60 days)
May 2023	Final Design approval

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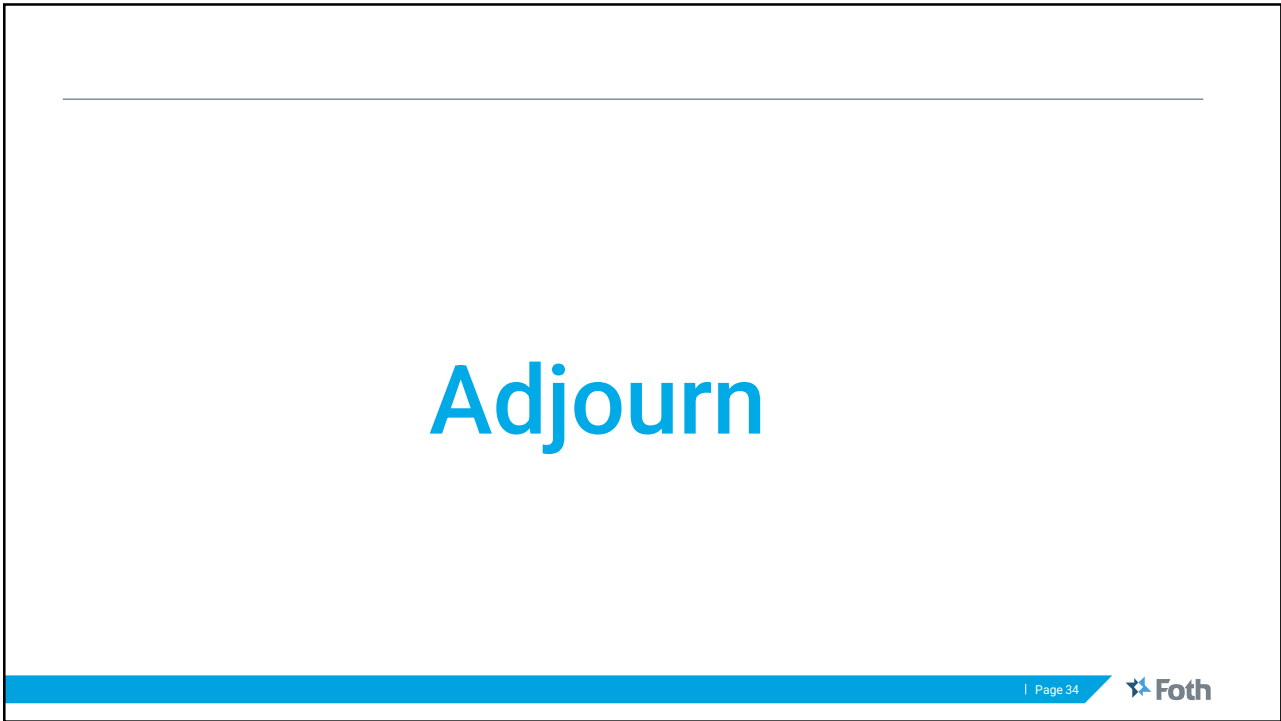




Next Steps/Action Items Discussion

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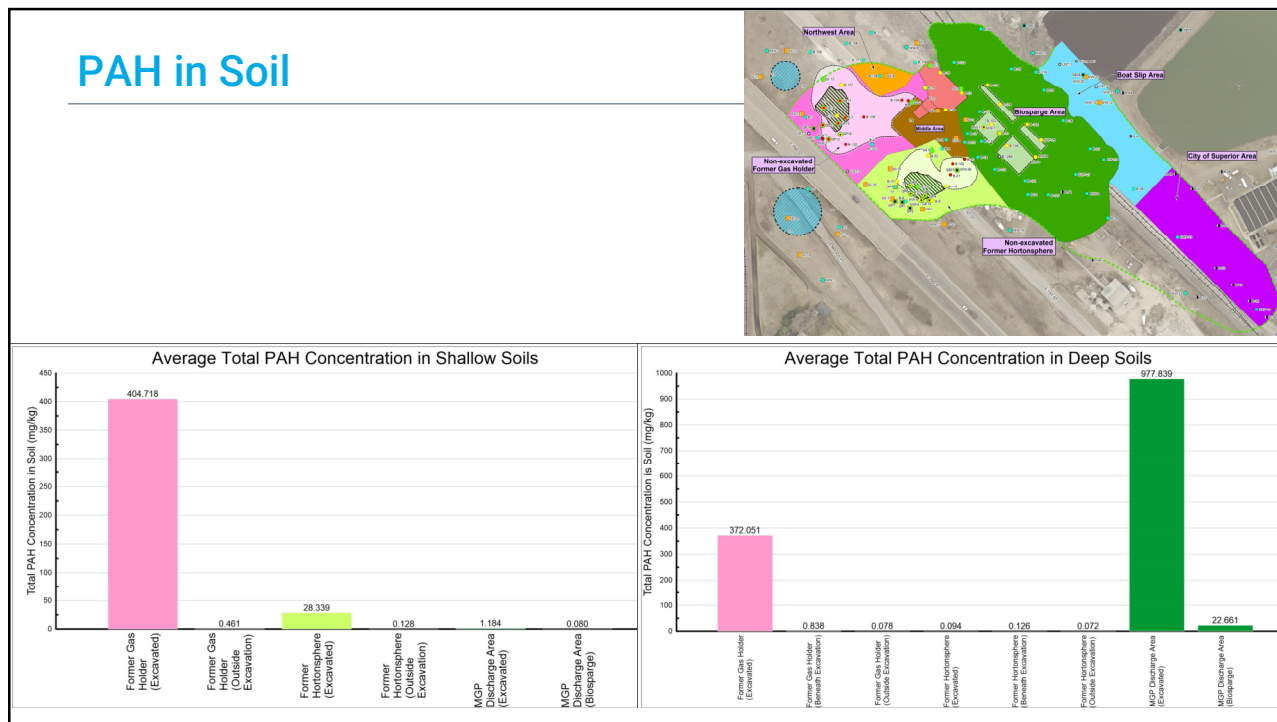


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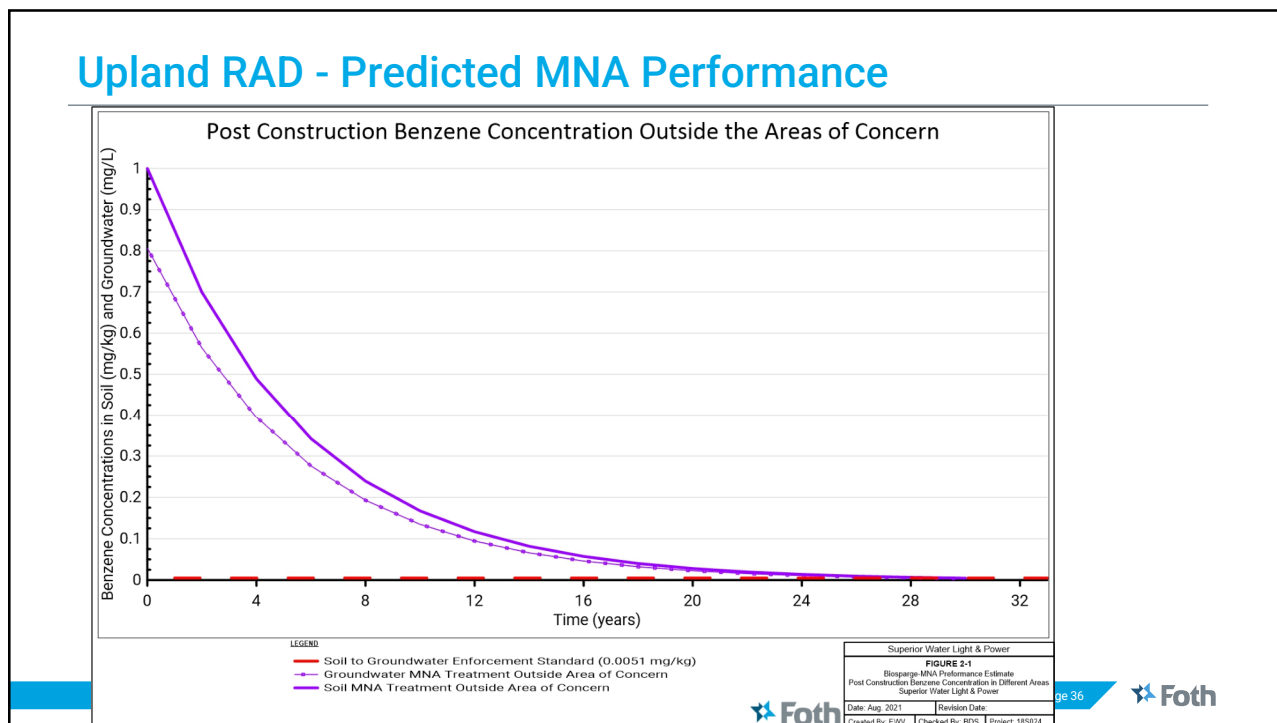
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## Key Issues

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- ◆ Provisions for additional monitoring and remedial actions
  - Additional investigation and/or additional remedial actions
  - Contamination on City of Superior WWTP property