Housatonic Rest of River
Final Remedial Design/Remedial Action Work Plan for Reach 5A

June 3, 2026

SEMS Doc ID 701661

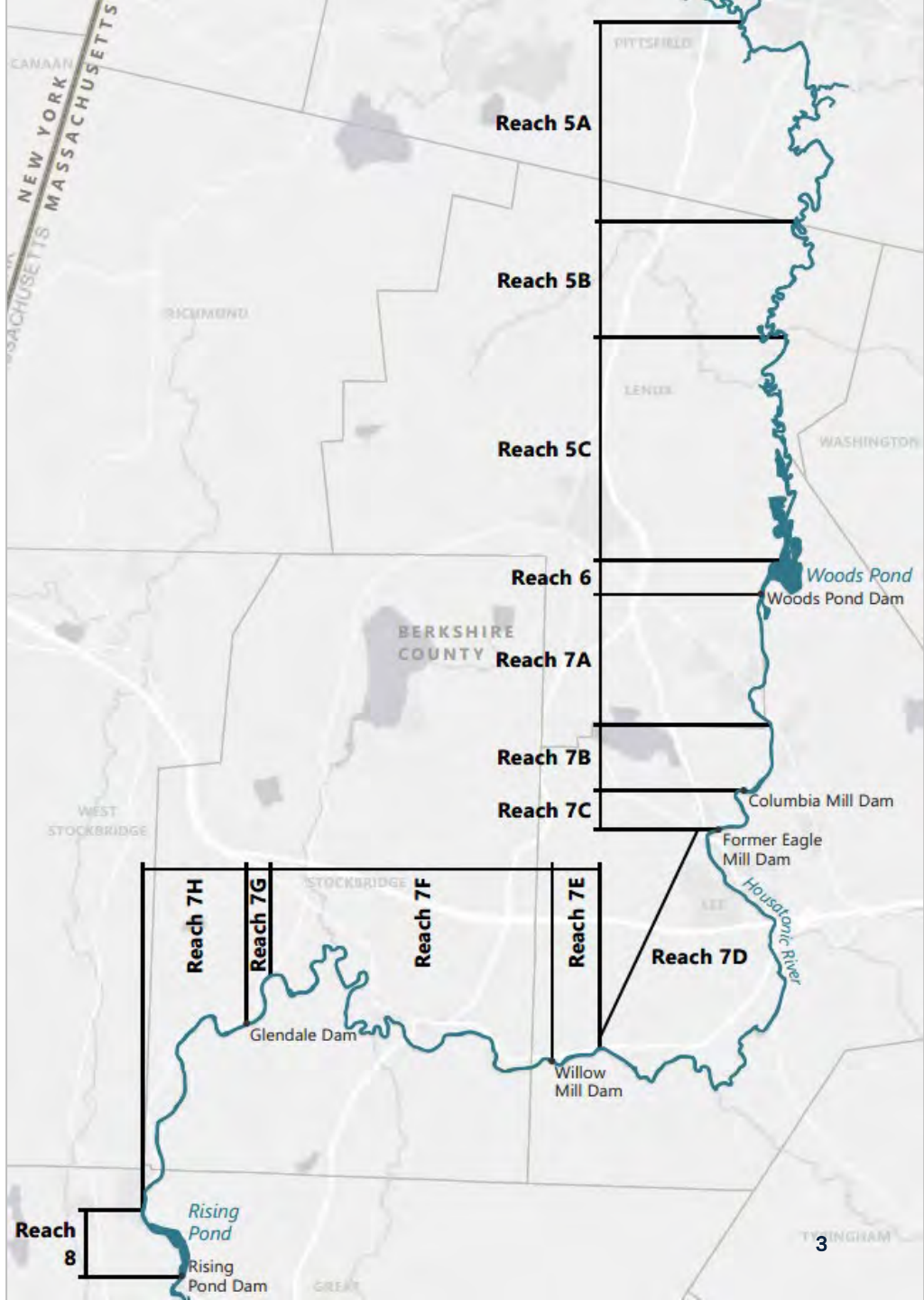
River Station 191+00

Agenda

- Overview
- Reach 5A Remediation Timeline
- Reach 5A Remedy Components
- Next Steps
- How to Stay Informed

Overview

- Rest of River (ROR) remedy was selected by EPA in a 2020 Revised Final RCRA Permit to address PCBs
  - RCRA Permit establishes Performance Standards that guide the remediation and remedial design
- Reach 5A covers the first 5 miles of ROR (from the East/West Branch Confluence to Pittsfield Wastewater Treatment Plant) and is the first section of ROR to be remediated
- Cleanup of Reach 5A represents an important early step in a long-term effort to reduce PCB risks, protect people and wildlife, and restore the river and its floodplain



Reach 5A Remedy Components

- **Remediation**
  - Removal of PCB-contaminated sediments and soils from river, backwaters, riverbanks, and floodplains
  - Placement of engineered sediment caps in river
  - Management and disposal of removed materials at an onsite Upland Disposal Facility (UDF) or at a permitted off-site disposal facility

Reach 5A Remedy Components (cont.)

- **Restoration**
  - River channel and bank improvements using natural channel design approaches to reduce future erosion and improve stability
  - Habitat restoration for aquatic, riverbank, and floodplain areas
  - Protection of threatened, endangered, and special-concern species, with mitigation measures where impacts cannot be avoided

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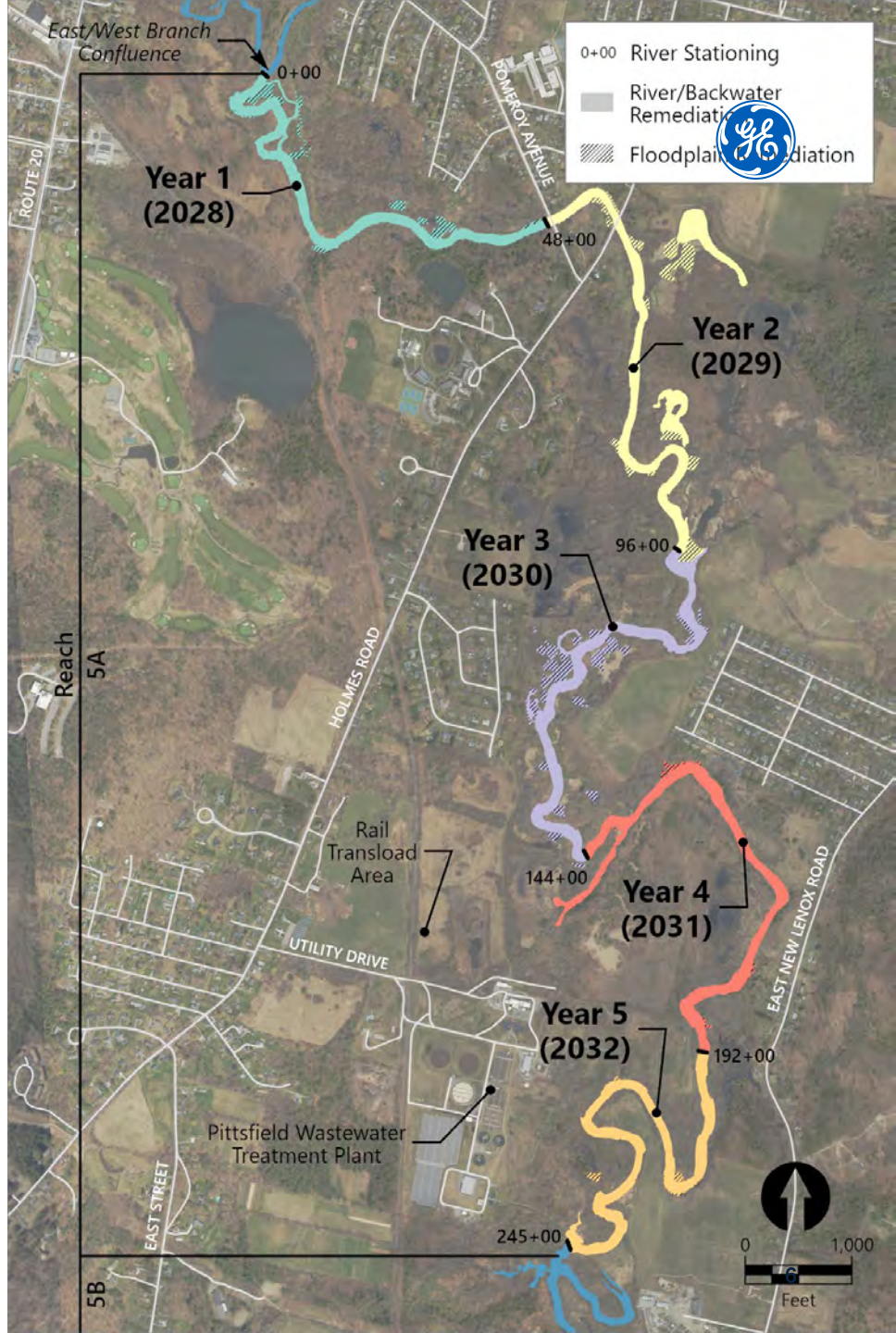
Reach 5A Design Summary

- Reach 5A remediation anticipated to be ~5 years, beginning in 2028
- Five sequential subreaches (each ~1 mile long)
- Removal of ~195,000 cubic yards (cy) of sediment and soil
- Excavated material to be disposed at the Upland Disposal Facility (UDF), except material with higher PCB concentrations to be disposed in off-site disposal facility
  - UDF disposal: 187,000 cy
  - Off-site disposal: 8,000 cy

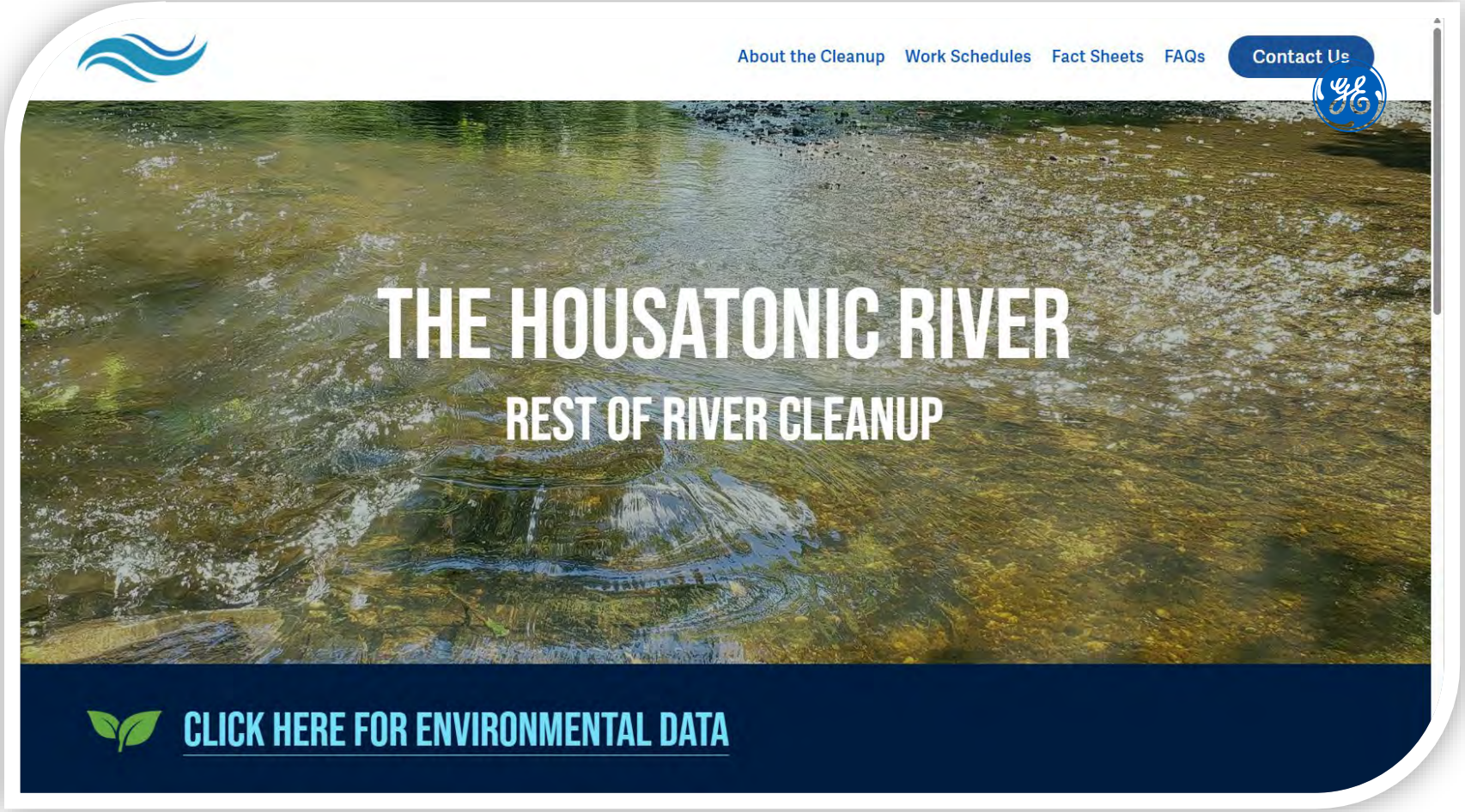


Community Health, Safety, and Quality of Life

Project includes measures to minimize impacts and ensure public safety:

- **Air monitoring** for PCBs and dust
- **Noise, odor, and lighting controls** implemented under an EPA-approved Quality of Life Compliance Plan
- A strong **safety and quality culture** for all workers and contractors
- **Managed truck routes and use of rail transport** to limit impacts on local roads
- **Internal (temporary) project roads and river crossings** to allow trucks to move within the site without using public roads whenever possible
- **Fencing, signage, and access controls** to clearly identify work areas and protect the public
- **Advance notice and ongoing communication** about construction activities and temporary changes to recreation access
- **Regular coordination** with Pittsfield, Lenox, Lee, landowners, and community stakeholders

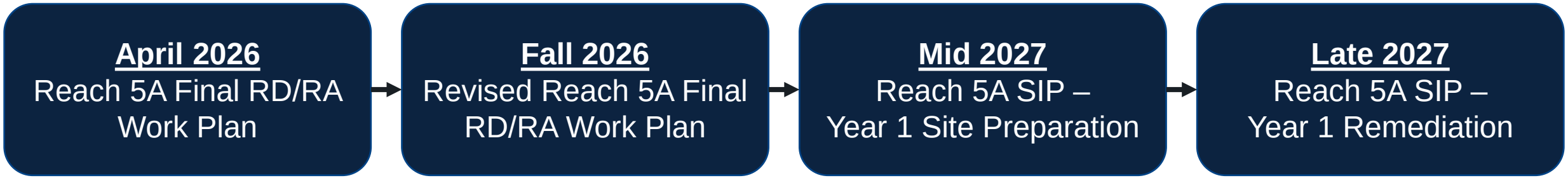
Project Website and Contact Information



- **GE's project website**: https://www.housatonicriverproject.com/
  - Includes quality of life monitoring data (updated regularly)
- **Toll-free phone line (866-596-3655)**

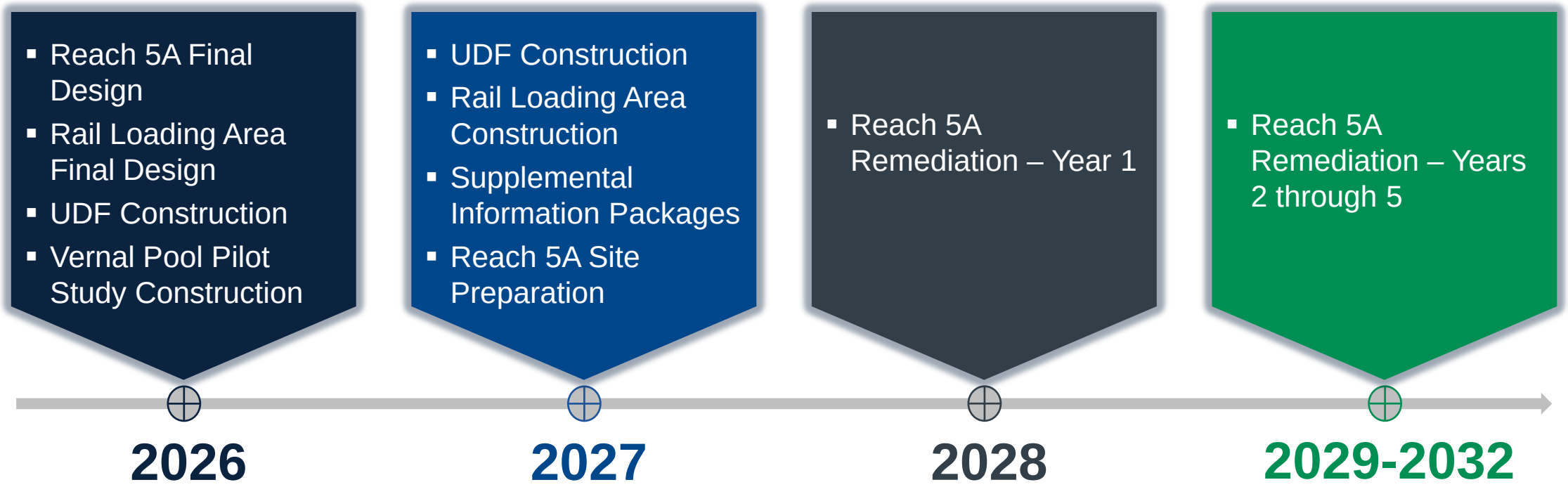
Reach 5A RD/RA Work Plan

- **Reach 5A Final RD/RA Work Plan submitted to EPA on April 29th**
  - Currently under EPA & public review
  - Presents overall remedial design framework for the entirety of Reach 5A
  - Final design details for the Year 1 construction area (Confluence to Pomeroy Avenue)
  - EPA's public input period ends August 10, 2026
- **Future RD/RA Documents**
  - Design details for Years 2 through 5 to be provided in revisions or addenda to the work plan
  - Annual Supplemental Information Packages (SIPs) to be issued after contractor selection



Reach 5A Remediation Timeline

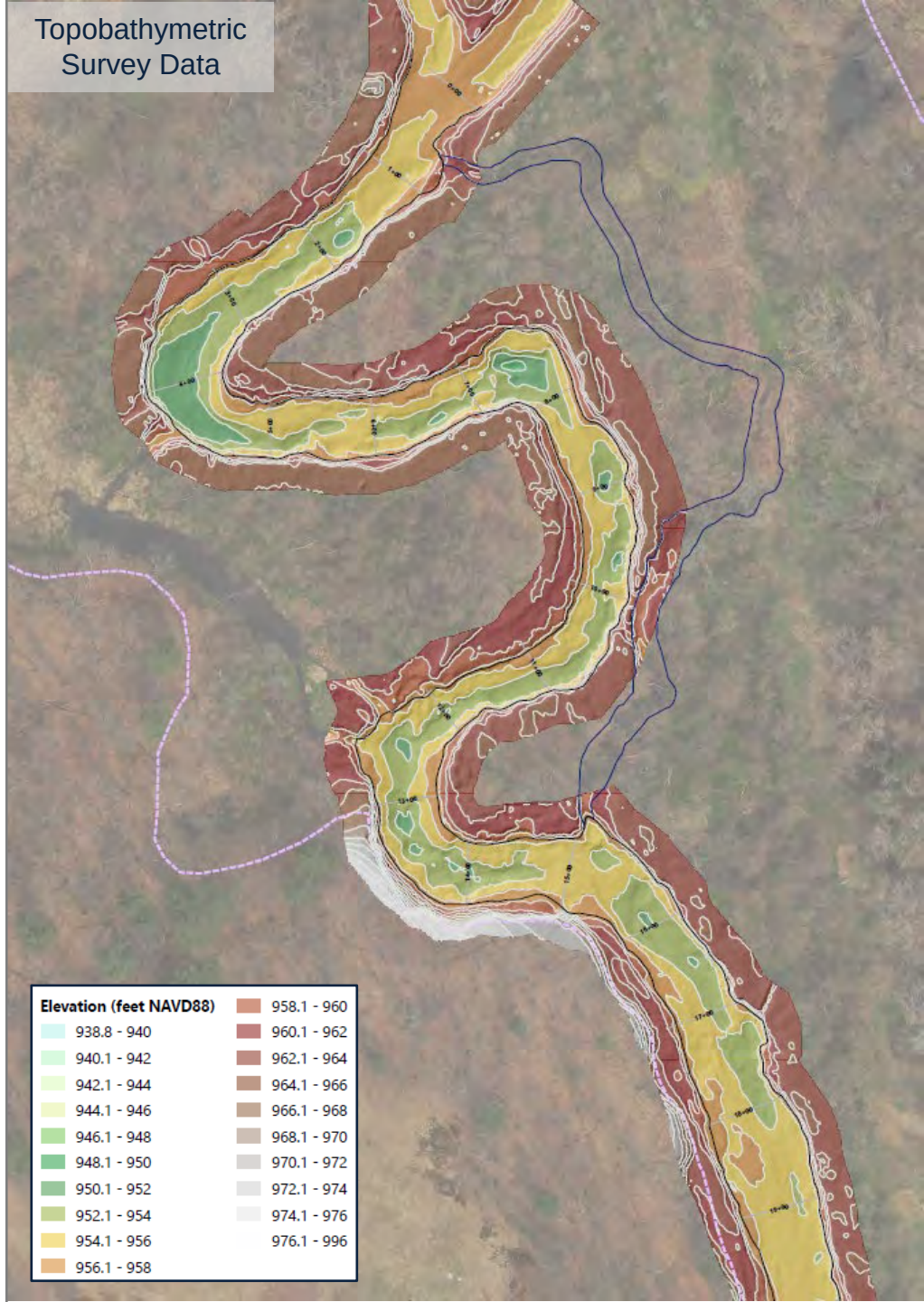
- **5-year phased construction approach** beginning in 2028, after UDF construction is complete
  - Site preparation to begin late 2027
- **Benefits of phased construction approach:**
  - Reduces impacts to river users, residents, and adjacent properties
  - Allows focused coordination with landowners and community within each area
  - Supports adaptive management — lessons learned each year will be used to improve efficiency and refine approaches in later years



Pre-Design Investigations

Extensive data collection to support design:

- Baseline habitat surveys
- Rare species surveys
- PCB samples collected across river, riverbank, and floodplain areas
- Topographic and bathymetric surveys
- Riverbank erodibility assessments
- Geotechnical characterization
- Natural Channel Design surveys
- Survey for potential cultural resources



Sediment Remediation: River Channel

- Removal of sediment to accommodate placement of an engineered cap over entire riverbed
  - Estimated Reach 5A sediment removal volume: **~120,600 cubic yards**
  - Engineered cap in Year 1 area will be minimum **22 inches thick**; thicker caps in some downstream areas

Sediment Remediation Methods

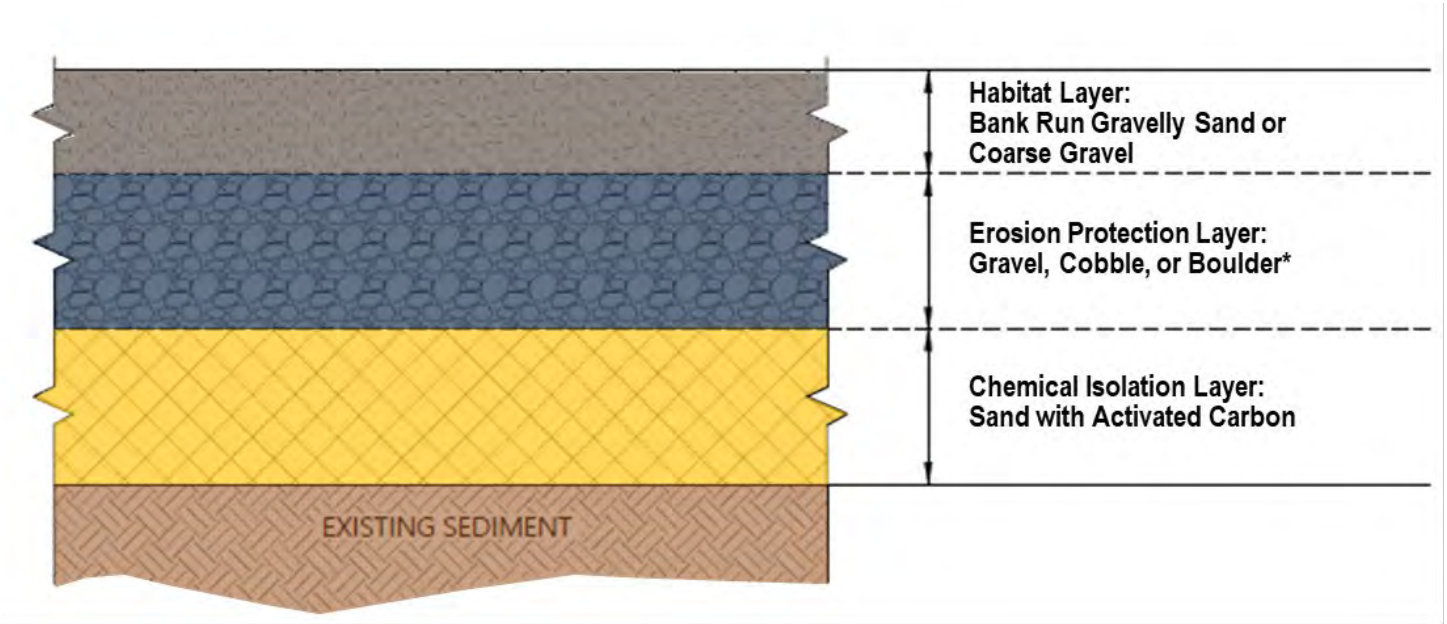
- Several methods may be used for sediment removal within the main river channel in Reach 5A
  - Mechanical excavation in dewatered work areas
  - Mechanical excavation under wet conditions
  - Mechanical excavation from a temporary causeway
  - Mechanical excavation with amphibious equipment
  - Hydraulic dredging
- Final selection of remediation methods will be informed by remediation contractor input

Mechanical Excavation in Contained, Dewatered Work Area

Mechanical Excavation with Amphibious Equipment

Engineered Cap Design

- Engineered caps to be placed in the river channel and some backwater areas to physically isolate remaining sediments after removal
- Cap layers
  - Chemical Isolation Layer
  - Erosion Protection Layer
  - Habitat Layer
- Final cap surface elevation determined based on Natural Channel Design
  - Hydraulic modeling confirmed no increase in flood stage or loss of flood storage capacity



**Where the Erosion Protection Layer consists of cobbles or boulders, a gravel geotechnical filter layer will be installed beneath*

Natural Channel Design

- Permit requires river channel and riverbank reconstruction to consider principles of **Natural Channel Design (NCD)**
- NCD goals are to provide a **stable channel profile** and **reduce bank erosion** without eliminating natural sediment supply or degrading habitat
  - Includes application of channel and bank structures where more robust stabilization is needed

Coir Matting (Post-Construction)

Post-Construction (+10 months)

Post-Construction (+2 years)

Backwaters & Other Waterbodies Remediation

- Backwaters
  - Removal of sediment and placement of engineered cap or backfill in 5 areas
  - Placement of activated carbon in one area containing “Core Habitat” (high value for rare species)
- Other Waterbodies to be remediated
  - West Pond at Canoe Meadows
  - Lower Sykes Brook
  - Intermittent Side Channel near Confluence
- Estimated total removal volume: **~9,200 cubic yards**


Backwater Area (BW5A-2)


West Pond (Canoe Meadows)

Riverbank Remediation

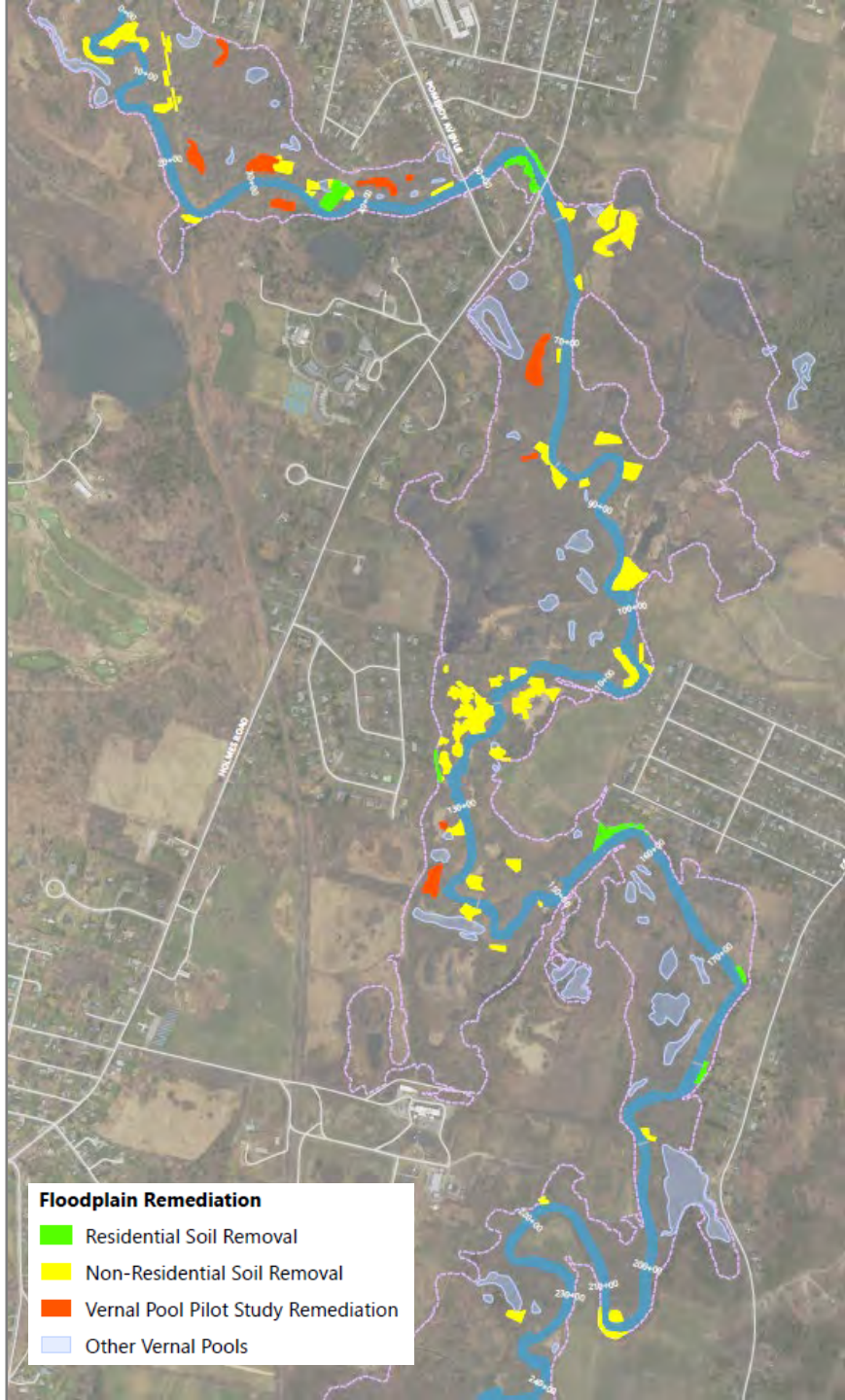
- Removal of soil from erodible banks with PCBs greater than 5 mg/kg
- Estimated total riverbank remediation
  - **~16,700 linear feet of riverbanks in Reach 5A (33%)**
  - **~40,800 cubic yards**
- Riverbank stabilization
  - Stabilization measures include bank grading and use of bioengineering techniques, where practicable
  - Use of rock for riverbank stabilization is minimal

Existing Reach 5A Riverbank – River Station 232+00

Example Stabilization Measure (Bioengineered Bags)

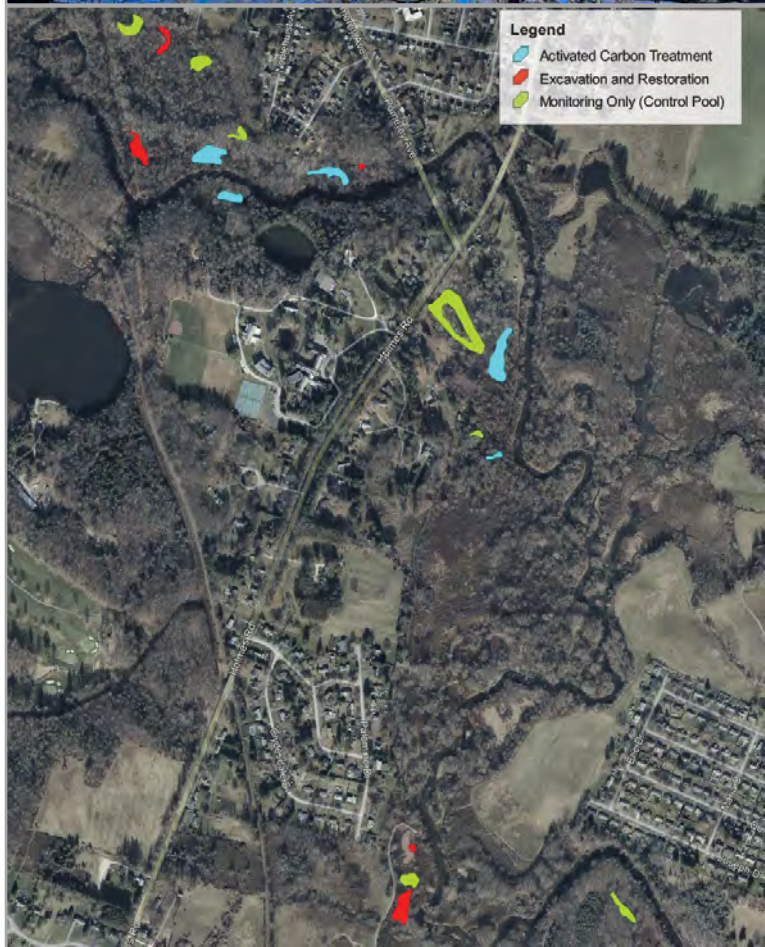
Floodplain Remediation

- Removal of soil from various residential and non-residential floodplain properties to achieve Performance Standards
- Estimated total floodplain soil removal volume
  - **~5,400 cubic yards** from 13 residential properties
  - **~18,550 cubic yards** from 22 non-residential Exposure Areas
- One vernal pool included in Reach 5A design (remainder deferred until after completion of vernal pool pilot study)
  - **~160 cy** (overlaps a residential parcel)



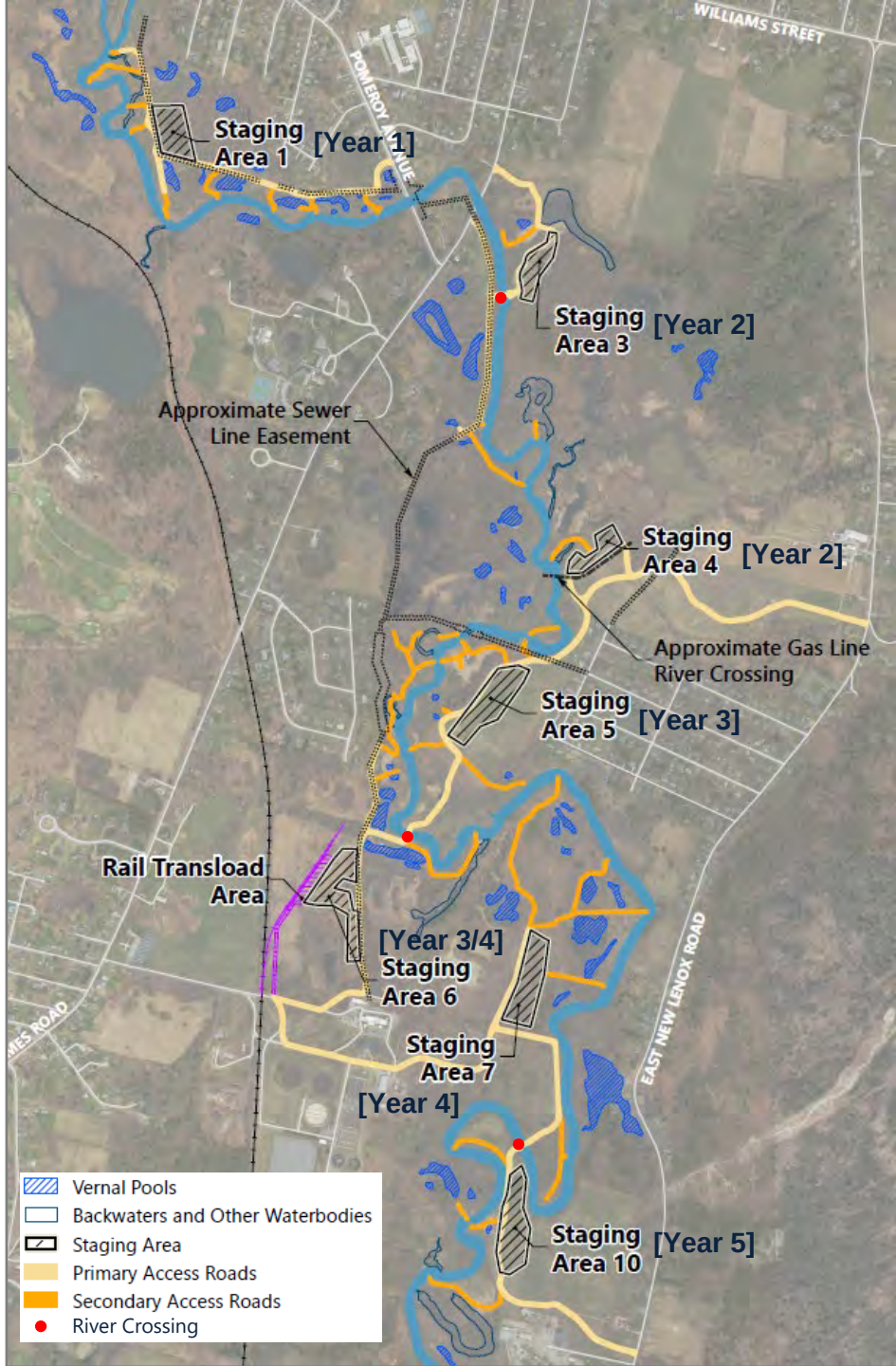
Vernal Pool Pilot Study

- Study will compare **soil removal** and **activated carbon treatment** to reduce PCB exposure in sensitive wetland soils
- Goal is to reduce PCB exposure while preserving vernal pool ecology
- **Construction (beginning late July 2026)**
  - 5 vernal pools: soil removal and restoration (**1,500 cy**)
  - 5 vernal pools: activated carbon treatment
- Monitoring (2027 through 2029)
  - PCB monitoring to evaluate cleanup effectiveness
  - Ecological monitoring for amphibians, plants, and water levels to ensure habitat health after cleanup



Remediation Support Areas

- Temporary staging areas (total of 7) for material management, equipment staging, water treatment, field offices
- Temporary access roads to provide access to work areas
- Rail transload area to be constructed north of the Pittsfield WWTP
- Other design considerations
  - Sanitary sewer protection
  - Natural gas line crossing
  - Avoidance of cultural resource and some rare species



Material Handling, Transport, and Disposal

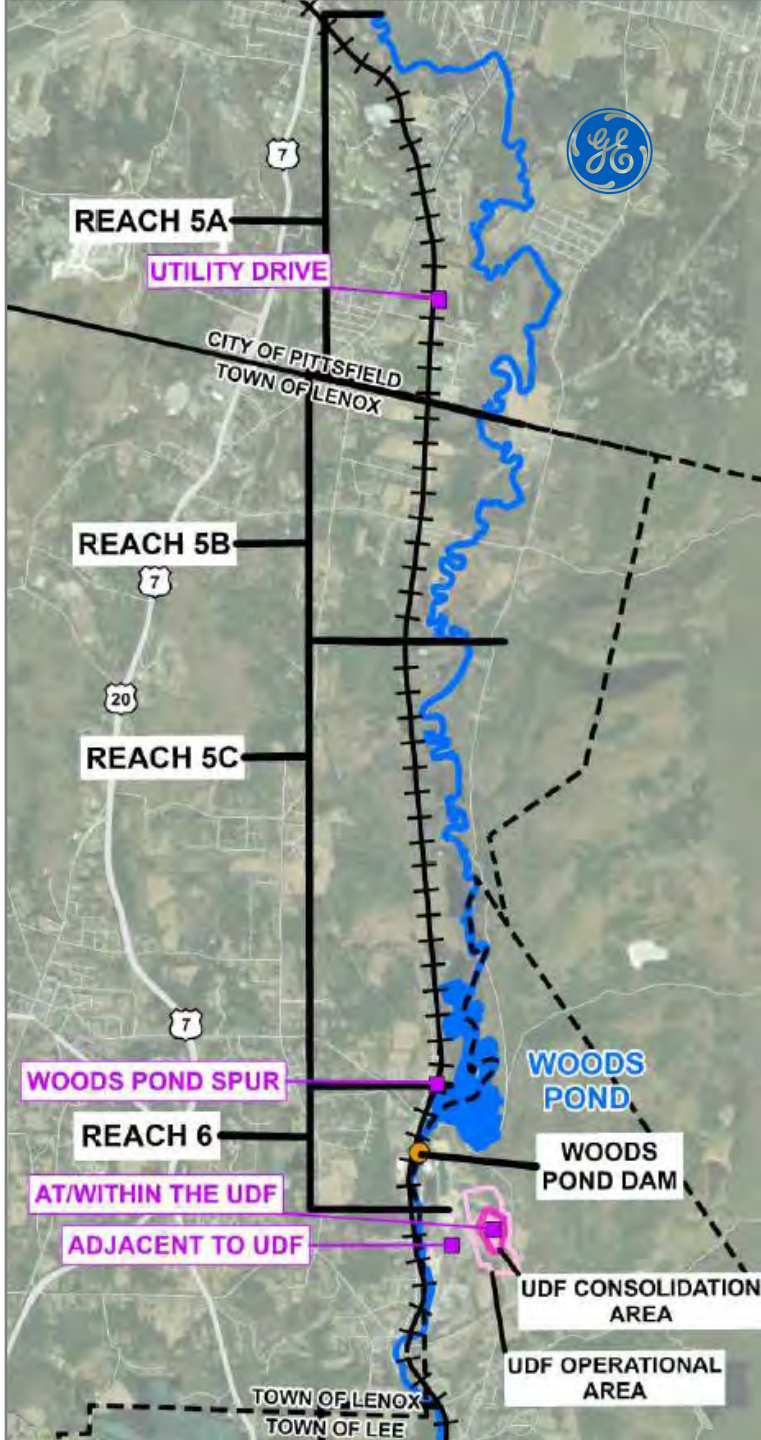
- At staging areas:
  - Removed materials consolidated, dewatered, segregated for UDF vs. off-site disposal
  - Loaded to intermodal containers and sealed for transport by truck to rail transload area
  - Water treatment
- Transport primarily by rail
  - Sealed intermodal containers removed from trucks and loaded to rail cars at rail transload area
  - Internal access roads and river crossings maximize rail use and minimize local road traffic by trucks

Material Handling, Transport, and Disposal (cont.)

- Overview of Reaches 5 and 6 rail transload areas
  - **Utility Drive:** located adjacent to Reach 5A near the Pittsfield Wastewater Treatment Plant
  - **Woods Pond Spur**: located adjacent to Woods Pond in the Town of Lenox, at Berkshire Scenic Railway Museum (BSRM) property

- Disposal volume summary

Construction Year	UDF Volume (cy)	Off-Site Volume (cy)
Year 1	33,000	3,000
Year 2	45,000	2,000
Year 3	46,000	2,000
Year 4	30,000	0
Year 5	33,000	1,000
Total	*187,000*	*8,000*



Restoration Design

- Separate **Restoration Plan** was submitted concurrently with the Final RD/RA Work Plan

River Channel: NCD-based reconstruction with riffle/pool features, point bars, in-stream structures, and habitat layer

Riverbanks: Bioengineered stabilization with native vegetation plantings; bank grading to stabilize slopes; seasonal planting schedules

Backwaters / Other Waterbodies: Re-establishment of pre-remediation hydraulic connection; cap/backfill with topsoil habitat layer; revegetation through natural recolonization and active planting

Floodplain: Backfill to original grade; native vegetation replanting; invasive species control; re-establishment of microtopography and hydrologic connectivity to the river

Rare Species Protection and Mitigation

- **Rare Species Conservation and Management Plan** attached to Restoration Plan
- **Wood turtle management program** (telemetry monitoring, exclusion barriers, herpetologist oversight)
- **State-listed plant seed collection and propagation** (partnership with Native Plant Trust)
- Seasonal **tree-clearing restrictions** for bat protection
- Phased in-river work to support **dragonfly recolonization**
- **Mitigation of unavoidable impacts to rare species** to provide long-term net benefit to those species

Wood Turtle Observed in Reach 5A

Wood Turtle With Monitor Attached

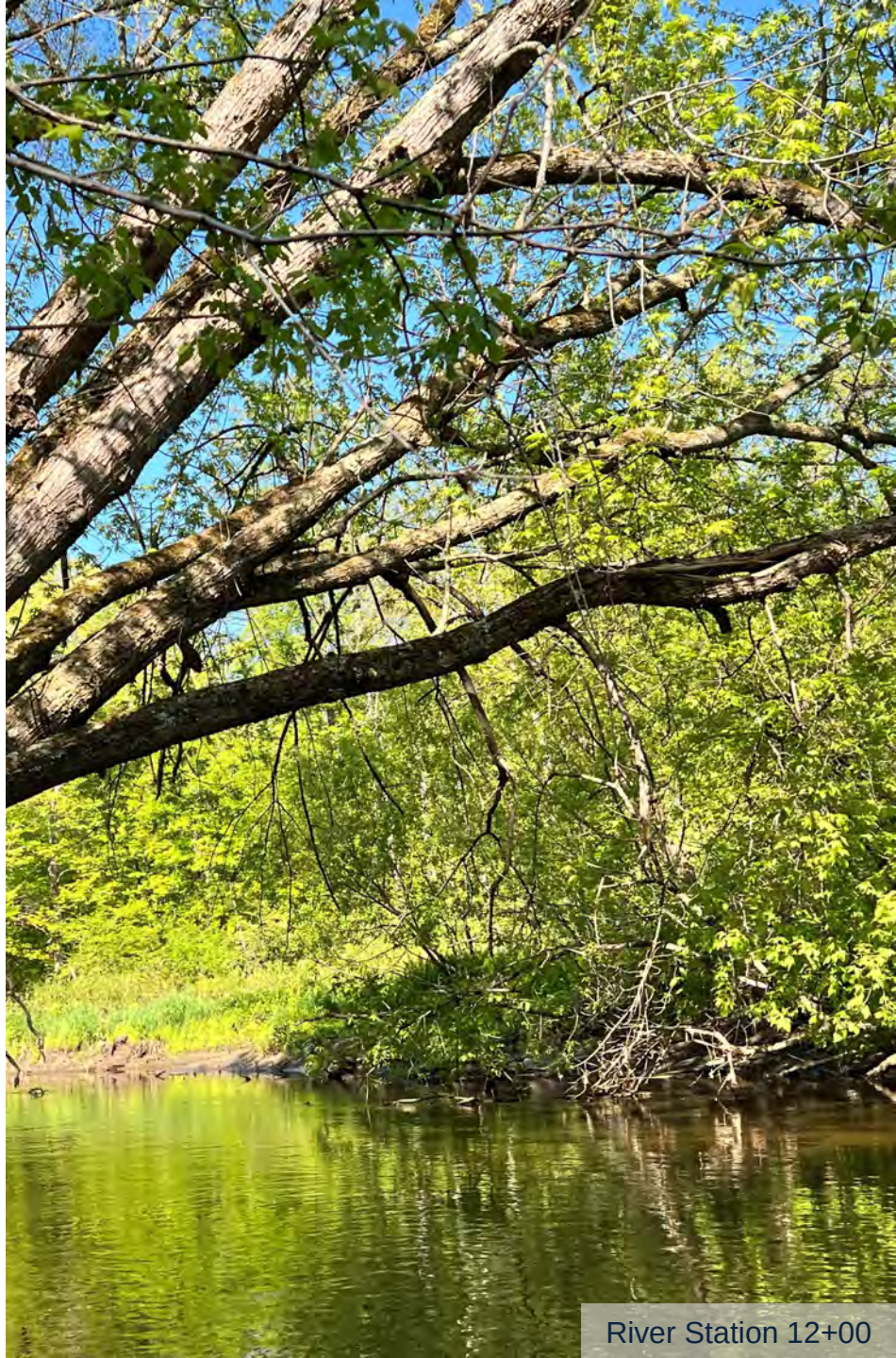
Long-Term Post-Construction Monitoring

- **Long-term monitoring for Reach 5A**
  - Monitoring of cap armor layer to ensure stability
  - Monitoring of stabilized/restored riverbank areas
  - Fish PCB monitoring
  - Monitoring of restored habitats for 7 years after restoration
- **Additional monitoring following completion of Reaches 5/6**
  - Surface water monitoring for compliance with PCB load standard
  - Waterfowl (i.e., duck) sampling
- **5-year reviews to be conducted by EPA per the Consent Decree**

Automated Surface Water Sampling Station (Woods Pond Dam)

Next Steps

- Public comments due to EPA by **August 10, 2026**
- **Summer/Fall 2026:** EPA reviewing Reach 5A design
- **Fall 2026:** A revised work plan or addenda will provide design details for Years 2 through 5
- **Fall/Winter 2026:** GE will proceed with contractor screening and selection
- **Summer/Fall 2027:** GE will prepare Supplemental Information Package (SIP) documents after hiring a remediation contractor



How to Stay Informed

- **Project website:** https://www.housatonicriverproject.com/
- **Project toll-free number:** 866-596-3655
- **Project contact form:** https://www.housatonicriverproject.com/contact-us
- **EPA's informational website:** https://www.epa.gov/ge-housatonic

Questions

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