

When Projects Collide

How the City of Haverhill navigated utility coordination during design of Locke Street area sewer separation

January 2024

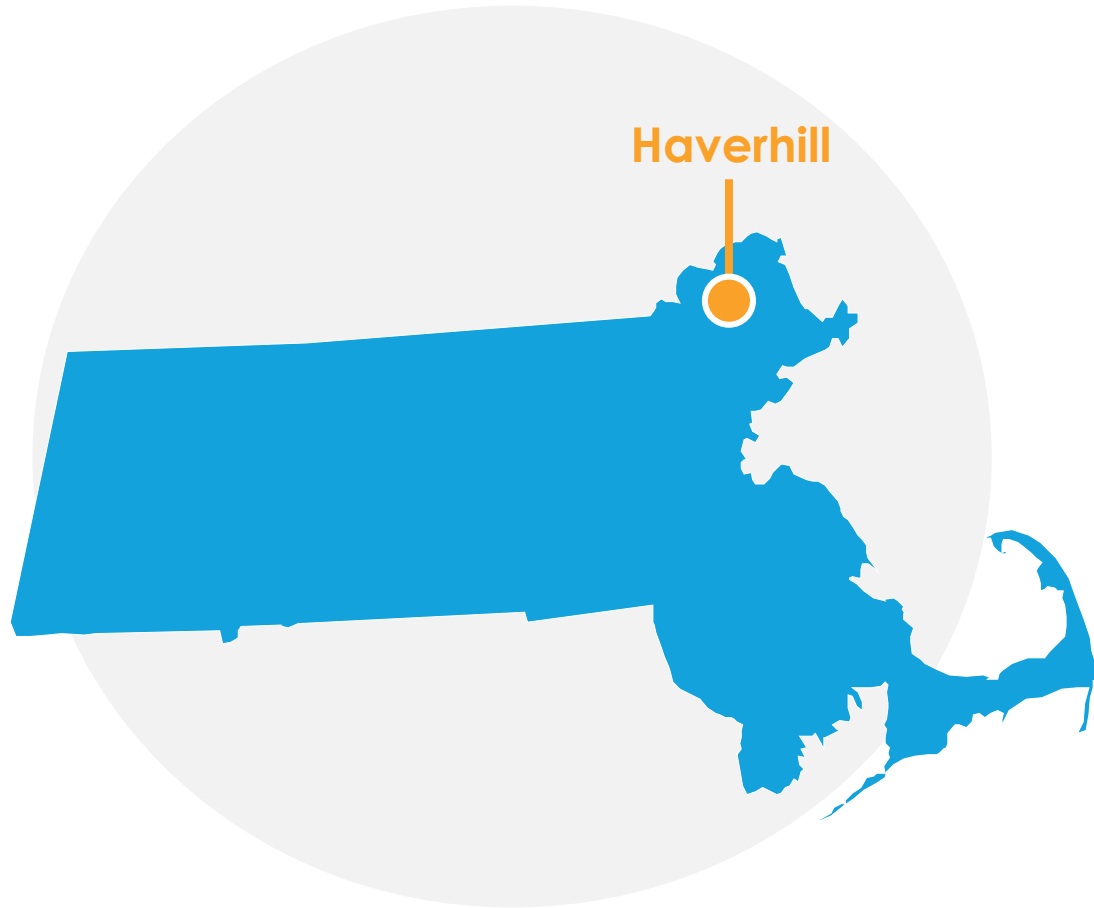
Laurie Perkins, PE
Matthew Corbin, PE



Presentation Overview

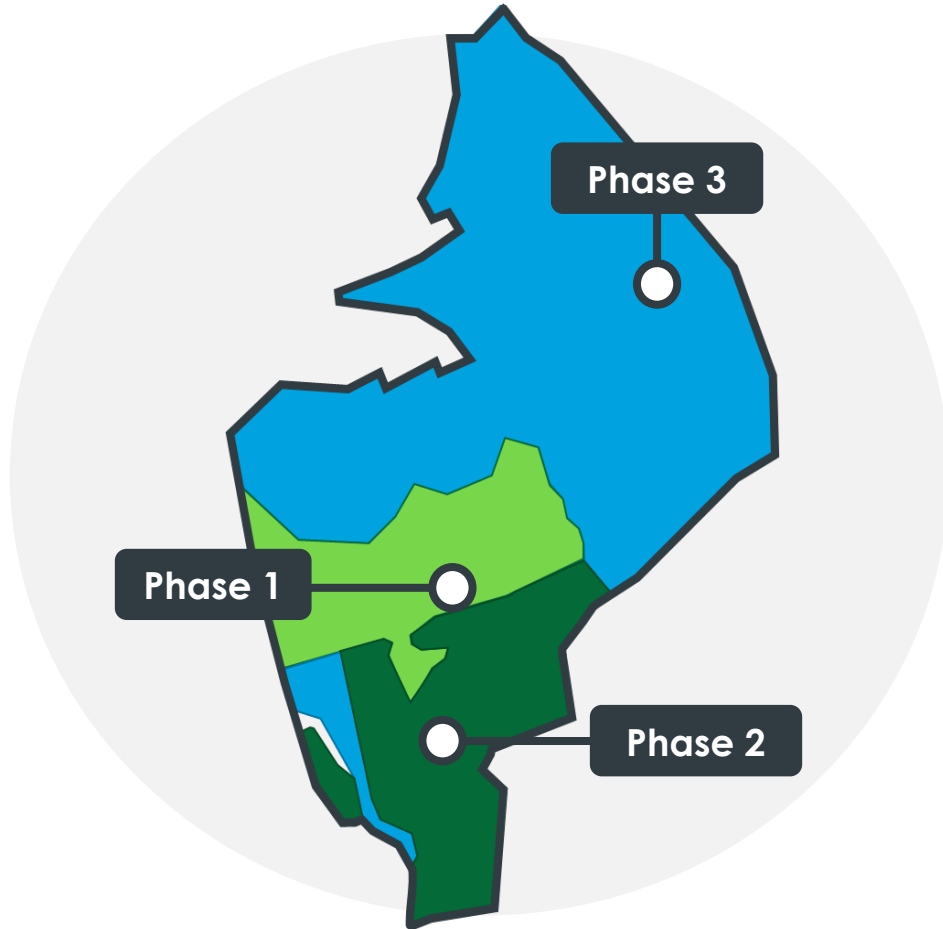
Project Background
Sewer Separation Design
Utility Coordination
Next Steps
Thank You

Haverhill Sewer Collection System



- Merrimack River watershed
- 134 miles of gravity sewers
- 66 miles of combined sewers
- 36 pump stations
- 15 active combined sewer regulators
 - 13 combined sewer outfalls
- WWTF – 10 MGD ADF

Locke Street Area Combined Sewer System



- 127,000 LF of combined sewers
- 3 (of 15) combined sewer regulators
- 2 (of 13 active) combined sewer outfalls
- Originally 6 phases but MassDEP wanted it to be completed sooner
- Modified to 3 phases to be completed by 2031
- Phase 1 requires new stormwater outfall

Consent Decree

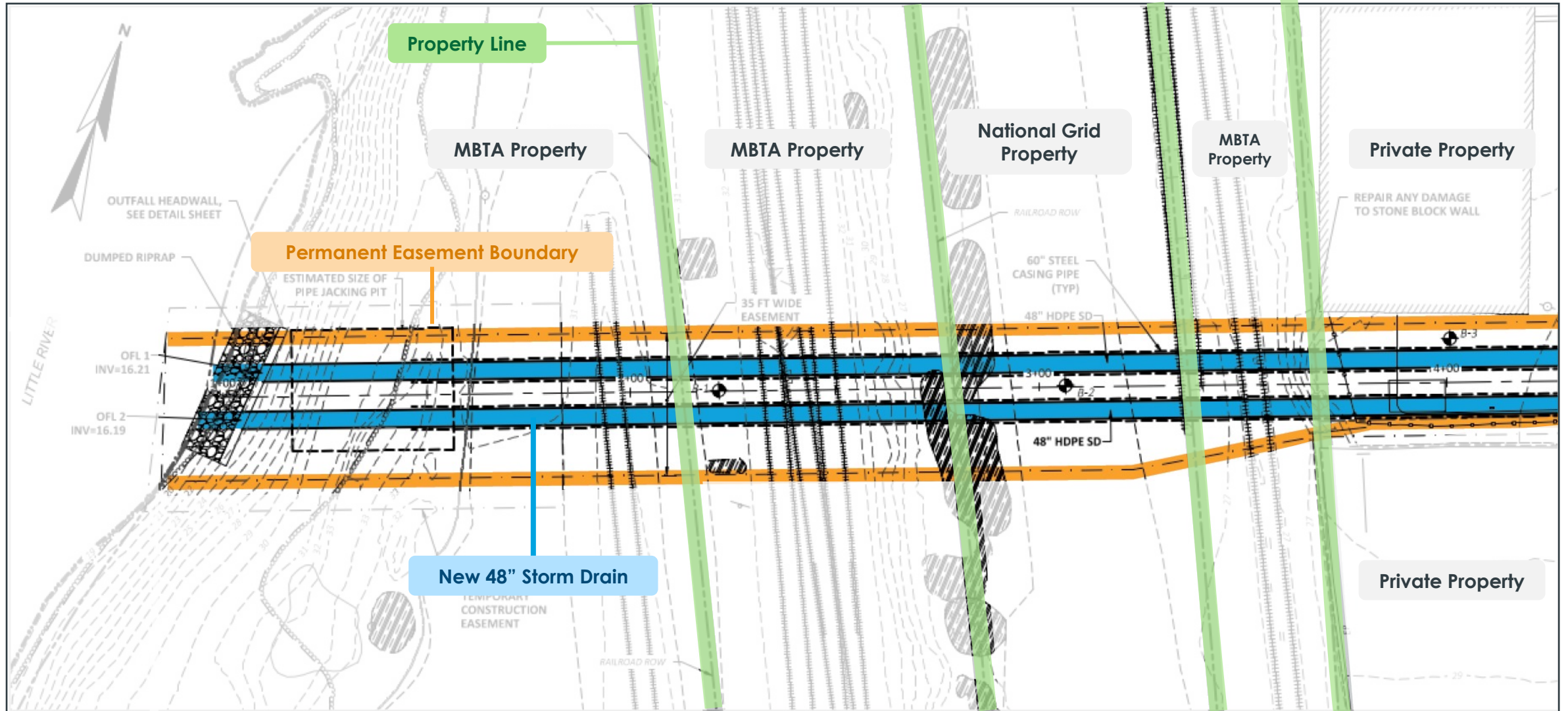


- **Finalized in November 2016**
- **Between EPA, MassDEP, and City of Haverhill**
- **Requirements included**
 - **Start continuous monitoring of CSO outfalls**
 - **Submit a final CSO long term control plan report**
 - **Perform feasibility study for using green infrastructure**
 - **Prevent CSO discharges during 3-month, 24-hour design storm**

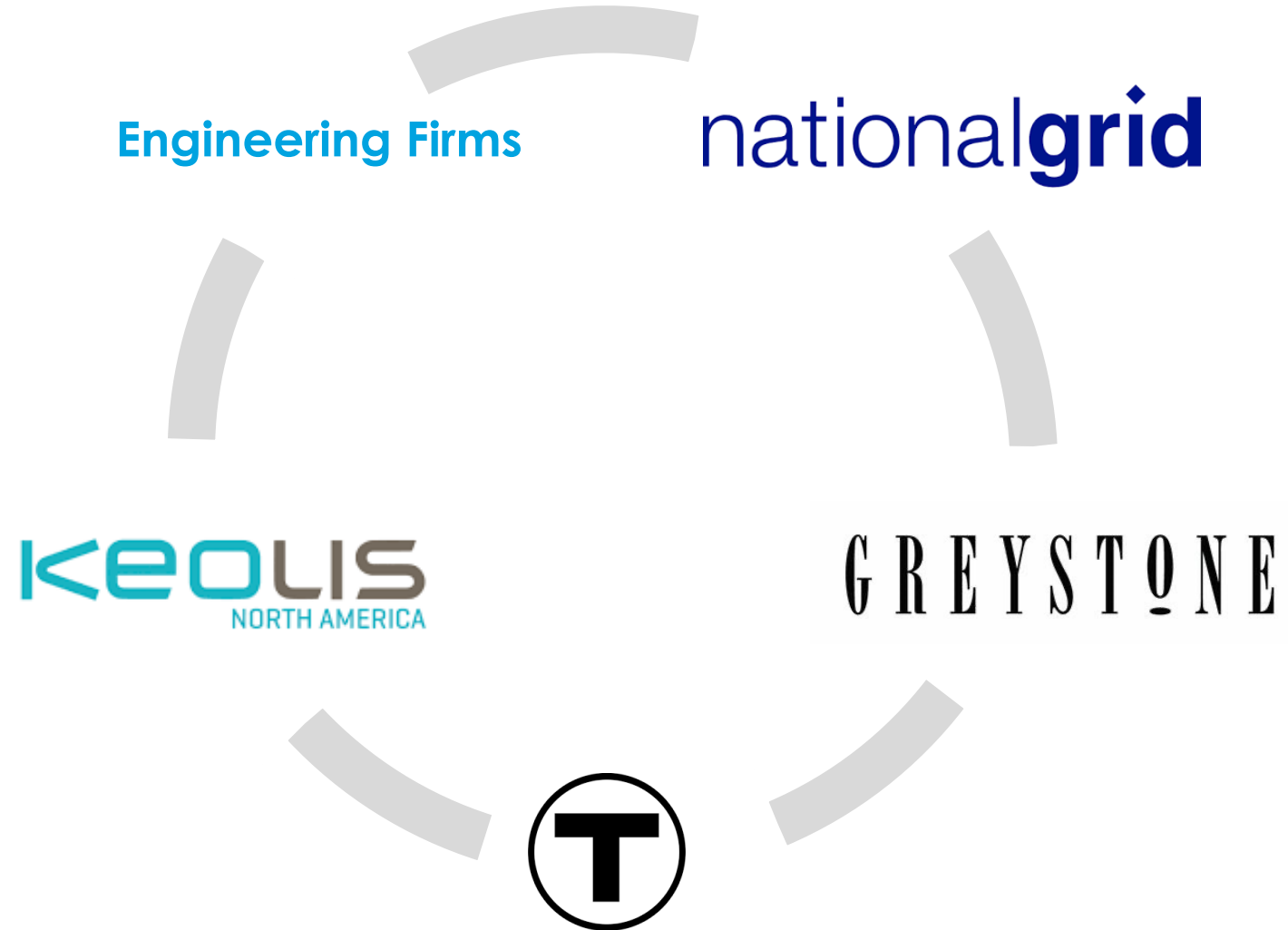
Hale Street Stormwater Outfall



Project Area for Stormwater Outfalls



Coordination

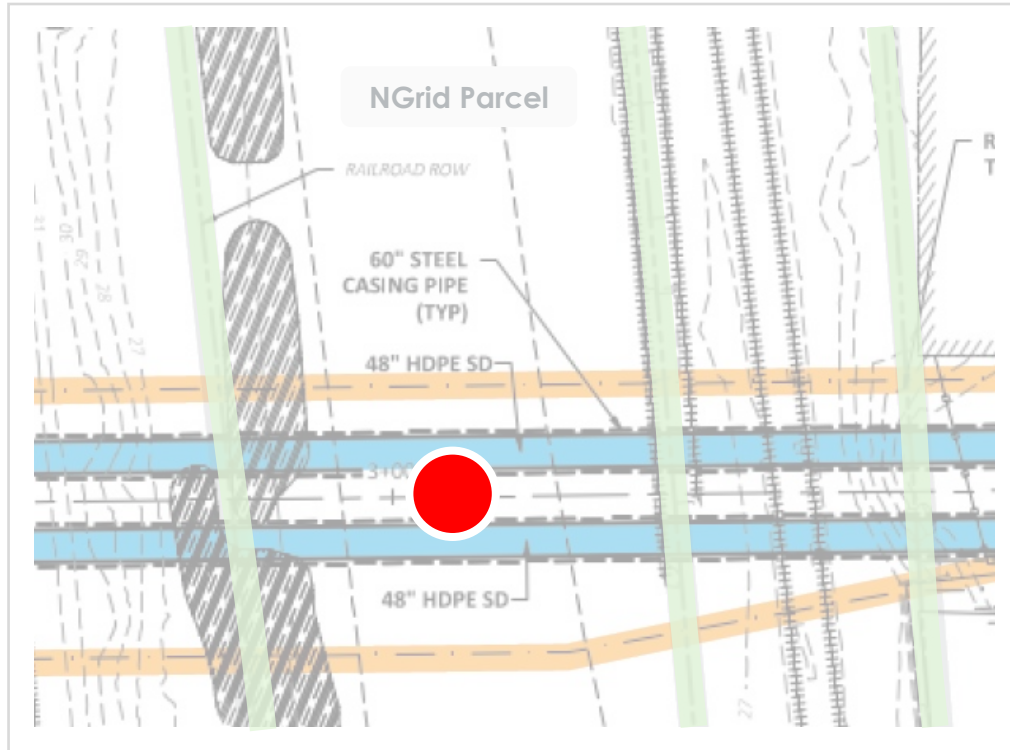


Stormwater Outfall Area – MBTA/Greystone



- **Steps for access agreement for borings**
 - Go through Greystone
 - Told typically 3 months for review - It took 7 months
 - Insurances took 3 weeks
 - MBTA took 5 weeks to review work plan
- **Met with Conservation Commission Agent in April 2023**
 - Agent wanted more detailed survey for Notice of Intent
 - Had to submit a separate MBTA access agreement

Stormwater Outfall Area – MBTA/Keolis



- After agreement is signed with MBTA, you work with Keolis commuter services
- Keolis roadway worker protection certification required to be onsite
- We met onsite with Keolis and Soil X about the boring locations

Stormwater Outfall Area – Keolis and Borings



Stormwater Outfall Area – MBTA



Next steps after field work

- Submit updated drawings to MBTA for approval
- Obtain 3 easements
 - MBTA said it will take ~12 months to obtain the easements

Stormwater Outfall Area – Little River Dam Removal Project



From Eagle Tribune

- Preliminary design for removing the Little River dam
- Outfall design will modify the proposed grading on Little River's eastern bank

Primrose Street Water and Sewer Improvements Project

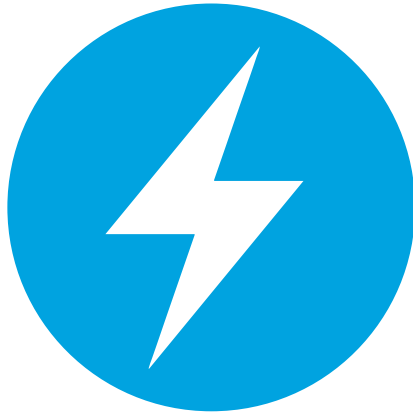


- City asked Wright-Pierce to rapidly design the storm drain improvements on Primrose Street
- Project's bid opening was in May 2022
- Construction started in October 2022
- Multiple utility conflicts due to pipe elevations

Stormwater Outfall Area and Primrose Street – National Grid



- **Coordination of new gas mains on Primrose Street and side streets**



- **Needed to obtain access agreement for borings and survey**
- **A site visit with the staff was enormously beneficial**
- **Need boring rig to be far enough from the high-tension wires so wires would not get hit if the rig tipped over**
- **Need to obtain permanent easement**

Impacts on Schedule – Which SRF Cycle?



Status

- Received a restricted Project Acceptance Certificate on 1/4/24
- Meet with City, MassDEP, and Wright-Pierce
- Received 1-year time extension for Phase 1 from MassDEP in Dec. 2023
- City decided to delay project by one year

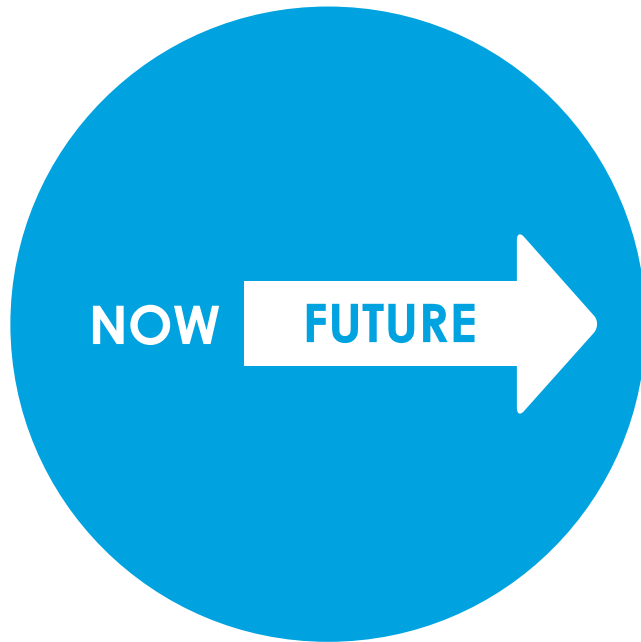


MASSACHUSETTS
CLEAN WATER TRUST

Next CWSRF Cycle

- Proactively submitted a PEF in Aug. 2023
- Made draft IUP List in Dec. 2023
- Resubmit SRF Application in Oct. 2024
- Bid in winter 2025
- Construction to start by Jun. 30, 2025

Next Steps



- Perform borings this week
- Survey the easements and riverbank (Feb. 2024)
- Obtain MBTA plan approval
- Obtain easements from MBTA, National Grid, and private property owner
- Bid in 2025

**Plan for more time than
you think to obtain MBTA
permits and easements!**

Acknowledgements



City of Haverhill, MA

Robert Ward

DPW Director

Paul Jessel

Collection System Supervisor

Contact Information



Laurie Perkins, PE

laurie.perkins@wright-pierce.com
603.498.5381



Matthew Corbin, PE

matthew.corbin@wright-pierce.com
978.416.8018

THANK YOU
