## Muddy River Flood Damage Reduction Project Phase 2 Construction Activities Next 90 Days November 2020

General: The Muddy River Flood Damage Reduction Phase 2 Construction Project is located in the footprint generally between Leverett Pond to Boylston Street in Boston and Brookline. The major project components involve dredging 1 to 8' of sediment for flow conveyance in the Back Bay Fens and Riverway sections of the Muddy River. It also includes excavation of the sandbar and island at Leverett Pond. Work also includes the removal of *phragmites* from the wetland and riparian areas which affect flow conveyance. After removal of river sediments and *phragmites*, preservation and restoration of the historic park shoreline in construction areas will consist of planting emergent wetland plants and restoring riparian vegetation in upland areas by planting trees and shrubs. This Notice is intended to identify the general construction activities that will be performed in the next 90 days. A figure that shows a typical flood control channel and the proposed improvements is at the end of this report.

## November 2020 through January 2021 Period:

- Since the award of the construction contract and issuance of the Notice to Proceed in late March 2020, the contractor worked through the technical submittals review and gained regulatory approval to begin dredging in early October. Condition survey of the existing river channel that was completed in late August compared well with the estimated quantity of sediment removal from the survey that was done in 2014.
- The sediment sampling and testing program that was completed at the end of June determined the final disposal location for sediments along the river. The contractor used these results to get approval for disposal of material at both in-state and out-of-state landfills.
- Dredging of the Muddy River is divided into 12 work areas as shown in the Vicinity Map. The contractor plans to perform concurrent work with two crews one working in Work Areas #1-#6 while the second crew works in Work Areas #7-#12.
- The site preparation which included temporary fence installation; existing tree root and trunk protection; and construction of staging and sediment management areas was completed in September between Work Areas #7-#11 from Avenue Louis Pasteur to Agassiz Road. Dredging in Work Area #7 (at Avenue Louis Pasteur) began in early October. Dredged sediment production has increased to about 140 cubic yards per day which allows for steady sediment processing and management; and a routine hauling of processed sediment to the final disposal location. Dredging in Work Area #7 is expected to continue into mid-December. Dredging in Work Area #8 will continue immediately after.
- At Work Area #1 Leverett Pond, the contractor completed temporary project fence installation, and site preparation activities which included installation of erosion and sedimentation control features; set up of sediment handling area; and delivery of dredging equipment in late September. The original intent had been to perform concurrent work at Work Area #1. However, recent information provided resulted in the need to re-engineer the dredge footprint at Leverett Pond. This will require additional sampling and testing of sediment and approvals from disposal facilities due to the revised footprint. To maintain progress of work, the decision was made to move to Work Area #2 in early November to begin dredging in that location. The contractor will return to Work Area #1 in early 2021 once Work Area #2 dredging is complete.
- Temporary fence installation began in Work Area #2 (section of river at Brookline Ave and Riverway near Beth Israel Deaconess Hospital) in early November. Equipment and materials will arrive for site preparation once the site is secured. Dredging is expected to begin in mid-to late-November. Dredging in Work Area #2 is expected to continue into late-January
- Selective removal of existing trees greater than 4" caliper identified to be removed in Work Areas #5-#6 and #12 will take place on November 23. This will be the last of the selective tree removal mobilization for the project.
- At the end of this notice we have included some pictures that show the construction progress at Work Areas #7 and #10. We thought folks would be interested in seeing the work occurring behind the fence.
- If you any questions, require additional information or would like to be added to the Project Contact List, please email the project mailbox at MuddyRiver@usace.army.mil



## **EXTENTS OF PROJECT WORK AREA FOR PHASE 2 CONSTRUCTION**





Turbidity curtain installed across the river at Work Area #7 after November 1. A section of the river was left open prior to November 1 to allow for blueback herring juvenile outmigration past the turbidity curtain before November 1.



Amphibious excavator at Work Area #7 – preparing to dredge.



Amphibious excavator dredging sediment from Work Area #7. Dredge bucket is equipped with Dredge Bucket Positioning System (DBPS) which is tied into the Real-Time Kinematic (RTK) Differential Global Positioning System (DGPS) installed on the excavator – this allows for precise dredging in river both horizontally and vertically.



Off-road water-tight haul truck positioned on timber matting at Work Area #7 – receiving dredged sediment from the amphibious excavator.



Sediment processing and management at Work Area #10 – excavator mixing amendment to stabilize the sediment before transport to final disposal facility.



Sediment processing bin at Work Area #10 – three stages of material: near side – excavated sediment brought by offroad haul truck; middle area – sediment that is in the amendment mixing stage; and far side – processed sediment that is stabilized, ready for shipment to the final disposal facility.