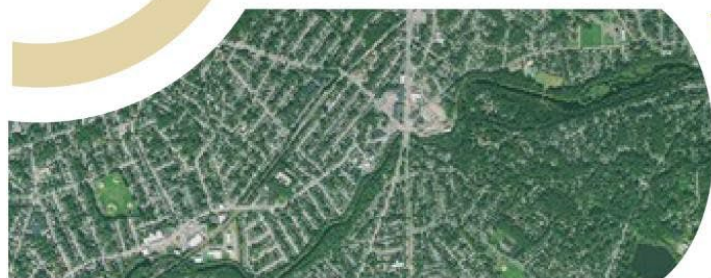


SUPERFUND

Lower Neponset River Site

Boston/Milton, MA



THE SUPERFUND PROGRAM protects human health and the environment by investigating and cleaning up often-abandoned hazardous waste sites and engaging communities throughout the process. Many of these sites are complex and need long-term cleanup actions. Those responsible for contamination are held liable for cleanup costs. EPA strives to return previously contaminated land and groundwater to productive use.

INTRODUCTION

EPA is proposing to implement a cleanup action to address contaminated sediments and soils within the Phase 1 Reach of the Lower Neponset River Superfund Site (Site). The Phase 1 Reach flows from the confluence of the Neponset River and the Mother Brook, located in the Boston neighborhood of Hyde Park. Information about the proposed cleanup is summarized in this fact sheet and documented in a report called an Engineering Evaluation/Cost Analysis (EE/CA). The EE/CA was released for public comment on June 13, 2025.

Virtual Public Hearing

Wed, July 9, 2025, 6:30 p.m.

Register and find details at

<https://www.epa.gov/neponsetriver>

Verbal comments will be transcribed. Written comments will be accepted during the public comment period (June 13 – August 1, 2025 - **extended date**).

EPA wants to hear your opinion on these options and the recommended cleanup plan for the Phase 1 Reach of the Lower Neponset River Superfund Site. Comments from the community will be accepted from June 13, 2025, to August 1, 2025. EPA is also requesting public comment regarding impacts to wetlands and waterways, impacts to floodplains, and its draft determination regarding the proposed cleanup of polychlorinated biphenyls (PCBs).

Written comments may be submitted online at <https://www.regulations.gov/docket/EPA-R01-SFUND-2025-0083>, or by email or mail. EPA will also be accepting verbal comments at a virtual public hearing on July 9, 2025, 6:30 p.m.

KEY CONTACTS

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www.epa.gov/neponsetriver

July 2025



HISTORY OF THE LOWER NEPONSET RIVER

The Lower Neponset River Superfund Site was added to the National Priorities List (NPL) on March 16, 2022, and is currently identified by the EPA as a 3.7-mile stretch of the Neponset River. The Site begins at the point where it merges with the Mother Brook (a tributary to the Neponset River located upstream of Dana Avenue in Hyde Park), extends downstream through City of Boston neighborhoods of Hyde Park, Mattapan, Dorchester, and the Town of Milton, and ends at the Walter Baker Chocolate Dam (located upstream of Adams Street in Dorchester/Milton).

The Neponset River, like most urban rivers in the Northeast, has a long industrial history. Industrialization and subsequent urbanization began in the Neponset River Basin as early as the 1630s. By the mid-1700s, the Neponset River drained one of the most heavily industrialized drainage basins in the United States, draining parts of, and areas adjacent to, the city of Boston. Recognized as the second watershed to be industrialized in the United States, the Neponset River has a complex history of contamination from both point and non-point sources. Used historically for hydro-powered factories, the Neponset River has been home to countless industrial land use ventures, most if not all of which likely had outflow and discharge pipes pumping industrial waste directly into the river.

WHY CLEANUP IS NEEDED AT THIS SITE

Harmful contaminants including PCBs, metals, volatile organic compounds, semi-volatile organic compounds, pesticides, dioxins, and furans have been identified within the Phase 1 Reach of the Site. PCBs are the primary contaminant of concern based on the extent and level of risk associated with the PCBs within the Phase 1 Reach.

Risk evaluations of human health and ecological risks associated with PCBs in sediment and floodplain soil at the Site determined that the concentrations of PCBs within the Phase 1 Reach pose significant risk to public health, welfare, and the environment under current conditions and support the need for a removal action. The Phase 1 data and sediment stability analysis indicate that PCBs and other contaminants in sediment are mobilizing downstream during normal and high flow conditions. Additionally, highly contaminated depositional source areas have the potential to become fully entrained if the T&H Dam fails, resulting in a catastrophic and uncontrolled release of contaminated sediment downstream.

NON-TIME-CRITICAL REMOVAL ACTION

EPA is using its authority to perform a type of clean-up, called a Non-Time-Critical Removal Action (NTCRA), to advance the cleanup at the Site substantially at this time. The use of a NTCRA is authorized under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (popularly known as “Superfund”) and regulations issued under the statute entitled the National Contingency Plan. The EE/CA identifies and evaluates alternative and recommends the cleanup approach to be implemented in the NTCRA. The alternatives are evaluated using three criteria (effectiveness, implementability, and cost) to identify the recommended alternative. The NTCRA is expected to be a complimentary part of the overall comprehensive remedial action (site cleanup).



REMOVAL ACTION OBJECTIVES

The EE/CA identifies the following Removal Action Objectives for the NTCRA:

- RAO 1 - Sediment: Reduce risk to human health from PCBs and other contaminants of potential concern (COPCs) in sediment, including reducing the residential and recreational receptor's unacceptable cancer and non-cancer risks pertaining to direct contact with PCBs.
- RAO 2 - Sediment: Reduce ecological risk from PCBs and other COPCs in sediment, including reducing the unacceptable risk to aquatic and terrestrial ecological receptors due to PCB exposure.
- RAO 3 - Floodplain Soil: Reduce risk to human health from PCBs and other COPCs in floodplain soil, including reducing the residential and recreational receptor's unacceptable cancer and non-cancer risks pertaining to direct contact with PCBs.
- RAO 4 - Floodplain Soil: Reduce ecological risk from PCBs and other COPCs in floodplain soil, including reducing the unacceptable risk to aquatic and terrestrial ecological receptors due to PCB exposure.
- RAO 5 - Sediment and Floodplain Soil: Remove the potential for an uncontrolled release of contaminated sediment and eroding floodplain soils in the event of dam failure.
- RAO 6 - Sediment and Floodplain Soil: Prevent the transport of PCBs to both remediated and unremediated areas.

SUMMARY OF REMOVAL ACTION ALTERNATIVES

RAA-1: No Action

RAA-1 is a "No Action" alternative, which is included as a baseline for comparison purposes. No costs are associated with this alternative.

RAA-2: Hotspot removal and temporary containment

RAA-2 will include the following activities:

- Removing sediment in the T&H Dam impoundment and former Lewis Chemical facility depositional area, which contain highly contaminated source material that is continuing to migrate downstream.
- Removing sediment throughout the remainder of the Phase 1 Reach exceeding the RAA-2 cleanup level of 100 milligrams per kilogram (mg/kg) to the maximum dredge depth.
- Constructing interim sediment caps over remaining contamination where PCBs exceed the RAA-2 cleanup level of 100 mg/kg and extend below the maximum dredge depth.
- Removing floodplain soil exceeding the RAA-2 cleanup level of 100 mg/kg.
- Dewatering sediment and floodplain soil (as necessary) and transporting and disposing the dewatered sediment and soil off-site.



SUMMARY OF REMOVAL ACTION ALTERNATIVES CONT..

RAA-2: Hotspot removal and temporary containment cont...

- Restoring and stabilizing the impacted channel and floodplain soils.
- Monitoring and maintenance.
- Implementing Institutional Controls (ICs) as appropriate.

The approximate cost of this alternative is \$29.9 million. The cleanup is estimated to take approximately two years and nine months to complete (this includes two mobilization and restoration seasons to accommodate suitable dredging weather and replanting windows). Figure 7 and Figure 8 in the EE/CA, respectively, illustrate the sediment and soil removal areas included in RAA-2.

RAA-3: Targeted removal, temporary containment, and dam removal

RAA-3 includes the following activities:

- Removing sediment in the T&H Dam impoundment and former Lewis Chemical facility depositional area, which contain highly contaminated source material that is continuing to migrate downstream.
- Removing sediment throughout the remainder of the Phase 1 Reach exceeding the RAA-3 cleanup level of 14 mg/kg to the maximum dredge depth.
- Constructing interim sediment caps over remaining contamination where PCBs exceed the RAA-3 cleanup level of 14 mg/kg and extend below the maximum dredge depth.
- Removing floodplain soil exceeding the RAA-3 cleanup level of 14 mg/kg.
- Removing additional sediment and underlying dense riverbed soil immediately upstream of the T&H Dam as necessary to establish a 10-foot horizontal to 1-foot vertical grade in the riverbed in advance of removing the T&H Dam.
- Dewatering sediment and excavated floodplain soil (as necessary) and transporting and disposing the dewatered sediment and soil off-site.
- Removing the T&H Dam.
- Restoring and stabilizing the impacted channel and floodplain soils.
- Monitoring and maintenance.
- Implementing ICs as appropriate.

The approximate cost of this alternative is \$41 million. The cleanup is estimated to take approximately two years and 10 months to complete (this includes two mobilization and restoration seasons to accommodate suitable dredging weather and replanting windows). Figure 9 and Figure 10 in the EE/CA, respectively, illustrate the sediment and soil removal areas included in RAA-3.



SUMMARY OF REMOVAL ACTION ALTERNATIVES

RAA-4: Comprehensive removal, permanent in situ amendment cap, and dam removal (*EPA's Recommended Alternative*)

RAA-4 includes the following activities:

- Removing sediment in the T&H Dam impoundment and former Lewis Chemical facility depositional area, which contain highly contaminated source material that is continuing to migrate downstream.
- Removing the top three feet of remaining sediment over the full length of the Phase 1 Reach, which will address accessible sediment exceeding the RAA-4 cleanup level of 1 mg/kg.
- Removing additional sediment and underlying dense riverbed soil immediately upstream of the T&H Dam as necessary to establish a 10-foot horizontal to 1-foot vertical grade in the riverbed in advance of removing the T&H Dam.
- Constructing a permanent cap with an in situ amendment over the full length of the Phase 1 Reach.
- Removing floodplain soil exceeding the RAA-4 cleanup level of 1 mg/kg.
- Dewatering sediment and excavated floodplain soil (as necessary) and transporting and disposing the dewatered sediment and soil off-site.
- Removing the T&H Dam.
- Restoring and stabilizing the impacted channel, including the full length of the Phase 1 Reach, and floodplain soils.
- Monitoring and maintenance.
- Implementing ICs as appropriate.

The approximate cost of this proposed cleanup plan is \$78.4 million. The cleanup is estimated to take approximately three years and 10 months to complete (this includes three mobilization and restoration seasons to accommodate suitable dredging weather and replanting windows). Figure 11 and Figure 13 in the EE/CA, respectively, illustrate the sediment and soil removal areas included in RAA-4.

COMPARATIVE ANALYSIS OF THE ALTERNATIVES

A comparison of the removal action alternatives, based on their effectiveness, implementability, and costs, and the reasons for recommending RAA-4 are summarized below.

RAA-1 (No Action) incorporates no cleanup activities and would not meet the established RAOs. Existing risks to human health and the environment from the presence of contaminants would remain. RAA-2 and RAA-3 would reduce existing risk to human health and the environment, including to the most highly contaminated sediment and floodplain soil, but would not achieve all RAOs. RAA-3 has a greater degree of protectiveness compared to RAA-2 because it includes removal and capping of contaminated material to a more protective cleanup level and includes the removal of the T&H Dam, which would allow removal of potential contaminated sediment under the dam foundation and eliminate the risk of an uncontrolled release of contaminated media from potential dam failure. RAA-4 provides significantly greater long-term protectiveness, as it fully remediates the sediment bed in the Phase 1 Reach and addresses unacceptable risk targeted by this removal action, is anticipated to be consistent with a final remedial action for the Phase 1 Reach, and includes removal of the T&H Dam. RAA-4 would achieve all RAOs for this project.



COMPARATIVE ANALYSIS OF THE ALTERNATIVES CONT...

The short-term effectiveness of RAAs 2, 3, and 4 would be similar in scope, including worker safety risk and construction-type impacts on the local community, but would have different durations. RAA-4 would have the longest construction duration because of the greater amount of material to be removed, dewatered, and transported offsite. However, while additional dredging and floodplain soil removal will likely be required in a future remedial action under RAAs 2 and 3, such future actions are less likely to be necessary under RAA-4. Additionally, RAA-4 will break the contaminant exposure pathway entirely to aquatic and terrestrial species. Therefore, the additional short-term impacts from future remedial action, when considered in combination with short-term impacts from RAA-2 or RAA-3, would likely be more significant than the short-term impacts from RAA-4.

Physical accessibility and administrative challenges are anticipated under RAAs 2, 3, and 4, but they can all be implemented with existing technologies and equipment that are typically used for dredging, excavating, and dewatering of contaminated sediment and soil. RAA-2 is considered more implementable because it does not include dam removal work. Dam removal work under RAAs 3 and 4 can be implemented using cranes positioned on the south riverbank and a barge and demolition equipment in the river. Because additional dredging and soil removal activities will likely be necessary in a future remedial action under RAAs 2 and 3, overall implementation challenges during the life of the remediation project, including access challenges, may be greater under those alternatives.

RAA-4 (\$78.4 million) is the most expensive alternative. RAA-3 (\$41 million) is the second most expensive, and RAA-2 (\$29.9 million) is the least expensive alternative other than RAA-1 (\$0). However, under RAA-4, future costs associated with addressing the Phase 1 Reach will be minimal due to the comprehensiveness of this alternative. Under RAAs 2 and 3, additional dredging and floodplain soil removal activities will likely be necessary. Therefore, RAA-4 is likely to be the most cost-effective alternative in the long term. Based on the comparative analysis summarized above and detailed in the EE/CA, EPA recommends RAA-4 as the preferred removal action for the NTCRA.

EPA IS ASKING FOR PUBLIC COMMENT ON THE FOLLOWING PROPOSED DETERMINATIONS

IMPACTS TO WETLAND/WATERWAYS AND FLOODPLAINS

Section 404 of the Clean Water Act, federal regulations at 44 CFR Part 9, implementing requirements under Executive Orders 11990 (Protection of Wetlands) and 11988 (Floodplain Management) require a determination that there is no practicable alternative to taking federal actions affecting federal jurisdictional wetlands/aquatic habitats and floodplains. Section 404 of the Clean Water Act requires a determination, when circumstances necessitate, that there is no practicable alternative to taking federal actions in waters of the United States, including wetlands, and that EPA's recommended removal action is the "Least Environmentally Damaging Practicable Alternative." Should there be no alternative that can avoid taking an action, the federal actions should minimize the destruction, loss, or degradation of these resources and preserve and enhance their natural and beneficial values. EPA has made, and is requesting public comment on, the following determinations:



IMPACTS TO WETLAND/WATERWAYS AND FLOODPLAINS CONT....

- The proposed cleanup will result in the occupancy or modification of wetlands and the 100- and 500-year floodplain.
- Because significant levels of contamination exist in sediments and soil within cleanup areas, there is no practicable alternative to occupancy and modification of floodplains and wetlands and there is no practicable alternative to conducting work in these wetlands or in the river.
- RAA-4 removal activities that impact waterways and wetlands are the least environmentally damaging practicable alternative due to the harmful impacts from contamination present in the aquatic environment and when taking into consideration the potential impacts of additional future response actions in the Phase 1 Reach that may be selected as part of a future remedial action. A one-time removal of contamination from waterways, including in wetlands, is environmentally preferable in comparison to multiple remediation events, which are likely to be necessary following RAA-2 and RAA-3. RAA-4 is anticipated to minimize the repeated disturbance to the hydrology, vegetation, and habitat integrity of impacted wetlands and waterways.

TOXIC SUBSTANCES CONTROL ACTION (TSCA) DETERMINATION

EPA has determined that contaminated sediment and floodplain soil in the Phase 1 Reach of the Site meet the definition of PCB Remediation Waste as defined under TSCA regulations at 40 CFR Section 761.3. Therefore, these PCB-contaminated sediments and soil are regulated for cleanup and disposal under federal regulations at 40 CFR Section 761. Under 40 CFR Section 761.61(c), EPA may authorize disposal of PCBs in a manner not otherwise prescribed provided that EPA determines that the disposal will not pose an unreasonable risk of injury to health or the environment. EPA has made, and is requesting public comment on, a draft finding that the recommended removal action alternative does not result in an unreasonable risk of injury to health or the environment if certain conditions are met. EPA's draft TSCA Determination, which documents the required conditions related to PCBs, is documented in Section 7 of the EE/CA. A final TSCA Determination will be made after considering all public comments received during the public comment period. The final Determination will be published with the Action Memorandum.

NEXT STEPS

The EE/CA report is out for public comment for through **August 1, 2025**. EPA will document and respond to all public comments in a Responsiveness Summary, which will become part of the Administrative Record. Based on the comments received, EPA may modify or change the recommended alternative. EPA will then issue an Action Memorandum, with the Responsiveness Summary attached, which authorizes and initiates the removal action process. After the Action Memorandum is signed, the NTCRA can be initiated.



FOR MORE INFORMATION AND COMMENT SUBMISSION

To view the EE/CA and other Site reports online please visit www.epa.gov/neponsetriver.

Provide EPA with your written comments about the EE/CA and the recommended removal action for the Lower Neponset River Superfund Site. Submit comments online on regulations.gov:

<https://www.regulations.gov/docket/EPA-R01-SFUND-2025-0083> (preferred method).

Alternatively, you may submit written comments via email to R1Neponset@epa.gov or by mail, postmarked no later than August 1, 2025, to:

U.S. Environmental Protection Agency, Region 1
Attn: Alexander “Tristan” Pluta, Remedial Project Manager
5 Post Office Square, Suite 100 (Mail Code 07-MI)
Boston, MA 02109-3912

Include the Docket ID No. EPA-R01-SFUND-2025-0083 in the subject line.

Or provide verbal comments during the Virtual Public Hearing on July 9, 2025, 6:30 p.m. Verbal comments will be transcribed. For more details, visit www.epa.gov/neponsetriver. Link to register in advance for the meeting: <https://usepa.zoomgov.com/meeting/register/IYrGOQWySw2GV2UgjNZymQ>.

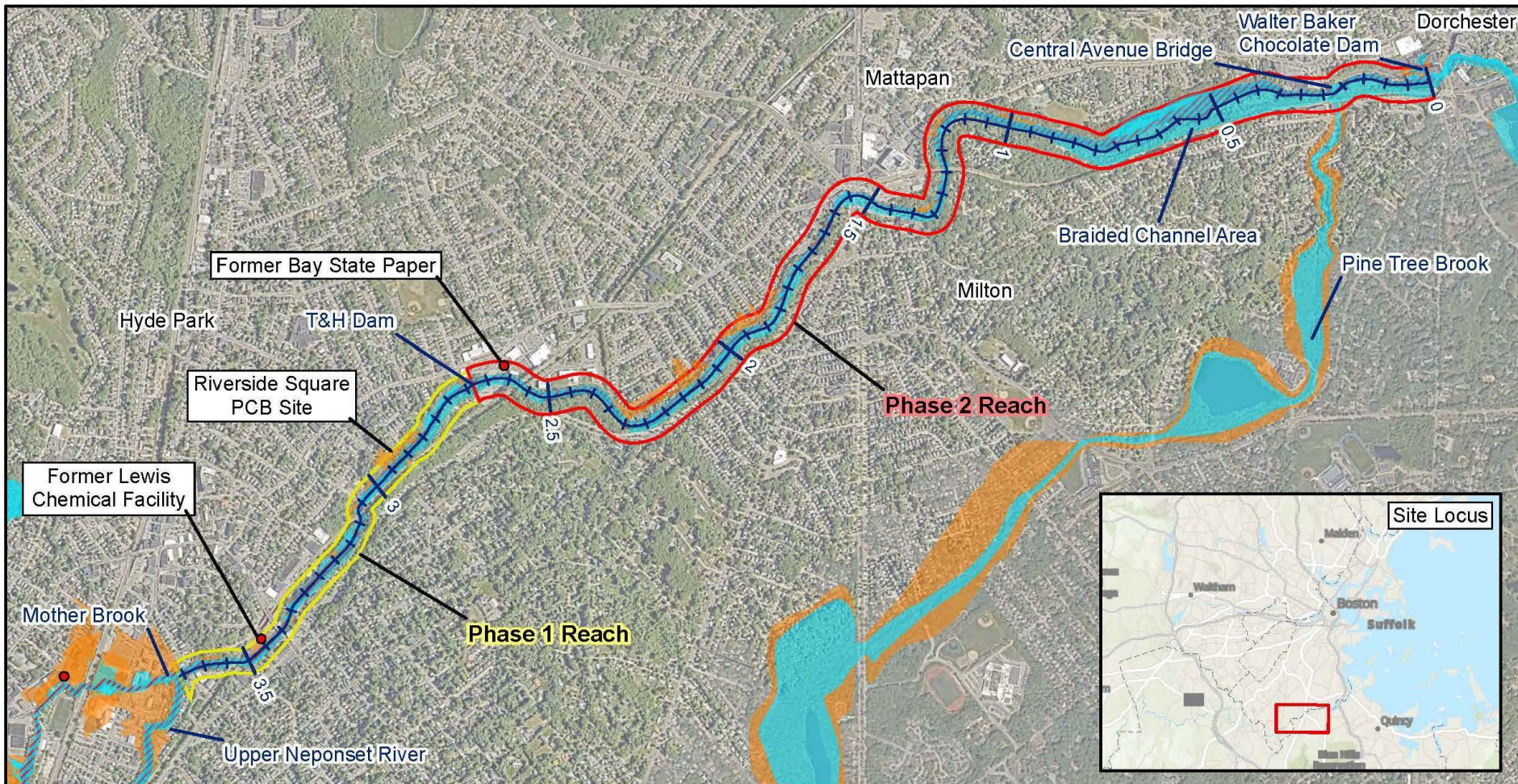
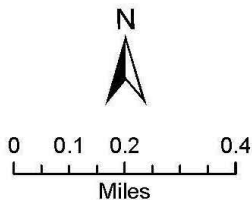


Figure 1
Lower Neponset River Superfund
Site Overview

AECOM



Legend

- LNR River Miles
- Suspected Source of PCB Contamination to the Site
- Phase 1 Reach
- Phase 2 Reach
- FEMA 100 Year Flood Zone
- Regulatory Floodway
- FEMA 500 Year Flood Zone