SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCES
FOR THE
NEW BEDFORD HARBOR SUPERFUND SITE
UPPER AND LOWER HARBOR OPERABLE UNIT 1 (OU1)
NEW BEDFORD, MASSACHUSETTS
U.S. EPA REGION 1

SEPTEMBER 2025

I. INTRODUCTION TO THE SITE AND STATEMENT OF PURPOSE

Site Name and Location: New Bedford Harbor Superfund Site (Site), Bristol County, Massachusetts

Lead Agency: United States Environmental Protection Agency

Support Agency: Massachusetts Department of Environmental Protection (MassDEP)

Statement of Purpose:

Section 117(c) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9617(c), and Section 300.435(c)(2)(i) of the National Contingency Plan (NCP), 40 CFR § 300.435(c)(2)(i), require that, if any remedial action is taken after adoption of a final remedial action plan, and such action differs in any significant respect from the final plan, the United States Environmental Protection Agency (EPA) shall publish an Explanation of Significant Differences (ESD). The ESD must describe the significant difference(s) between the selected remedial action and the modified remedial action, including an explanation of why such changes were made.

Description of the Operable Unit 1 CERCLA Remedy:

OU1 ROD Remedy

EPA documented the selected remedy for the Upper and Lower Harbor Operable Unit of the Site (Operable Unit 1 or OU1) in a Record of Decision (OU1 ROD or the 1998 ROD) signed on September 25, 1998. Since that time, EPA has gathered additional site information and refined the cleanup approach for the Upper and Lower Harbor areas through six prior ESDs, described below. The cleanup plan selected in the OU1 ROD called for dredging of sediment in the Upper Harbor and Lower Harbor contaminated with polychlorinated biphenyls (PCBs) above the

selected cleanup levels.[1] The OU1 ROD called for the construction of four shoreline confined disposal facilities (CDFs) (A, B, C, and D) to contain and isolate the dredged sediment, associated water treatment, capping of the CDFs, long-term monitoring and maintenance, and land use controls, also referred to as "institutional controls" (ICs)[2]. The CDFs were conceptually located in PCB-contaminated areas to avoid the need to dredge an additional approximately 126,000 cubic yards (cy) of contaminated sediment, which instead would have been contained within the footprints of the CDFs. The OU1 ROD also included the remediation of two localized areas of PCB-contaminated sediment that exceeded OU1 cleanup standards, located in the Outer Harbor just south of the Hurricane Barrier.[3] To support Harbor dredging efforts, EPA established a Desanding Facility with several water/sediment holding cells (Cells 1, 2 and 3) on City-owned property at 103 Sawyer Street (also abutting a pilot CDF constructed by EPA).

Remedy Modifications Through Six Explanation of Significant Differences

The six ESDs modified the OU1 remedy to address evolving conditions, as summarized below:

- ESD1 (2001): 1. Incorporated mechanical dewatering of dredged sediment (including construction of desanding and sediment dewatering facilities); 2. Authorized Construction of a rail spur to the dewatering facility; 3. Revised the dike design at CDF D; 4. Documented the creation and continuous use of the pilot CDF at EPA's Sawyer Street facility (Pilot CDF); 5. Identified additional intertidal cleanup locations in residential zones; and 6. Refined the total volume of *in-situ* PCB-contaminated sediment to be addressed (approximately 800,000 cy).

- ESD2 (2002): 1. Eliminated CDF D and 2. Modified the sediment disposal destination from CDF D to off-site disposal.

- ESD3 (2010): Documented the temporary storage of highly contaminated PCB and volatile organic compound (VOC) sediment (dredged near the Aerovox facility) in the former hot spot sediment disposal cell #1 at EPA's Sawyer Street facility.
- ESD4: (2011): 1. Modified the remedy to include the construction and use of a confined aquatic disposal (CAD) cell in the lower harbor (the Lower Harbor CAD Cell or LHCC) for the disposal of approximately 300,000 cy of dredged sediment; and 2. Refined the total

[1] The New Bedford Harbor Superfund Site is divided into the Upper, Lower, and Outer Harbors. The boundary between the Upper and Lower Harbor is the Coggeshall Street bridge; the boundary between the Lower Harbor and the Outer Harbor is the New Bedford Harbor hurricane barrier (**Figure 1**).

[2] Institutional controls (ICs) are legal and administrative tools used to protect people from exposure to contaminants left behind at a site.

[3] One of these Outer Harbor areas (the largest of the two) was capped in 2005 under a pilot capping study that included periodic long-term monitoring, most recently in 2022. See Section III.A below for more detail. The other, smaller Outer Harbor area was deemed to be based on a false positive pre-ROD sample, as two rounds of post-ROD sampling did not detect any PCBs above the cleanup level.

volume of *in-situ* PCB-contaminated sediment above the 1998 OU1 ROD cleanup levels (approximately 900,000 cy).

- ESD5 (2015): 1. Eliminated CDFs A, B and C in the Upper Harbor; 2. Modified the sediment disposal destination from CDF A, B and C to off-site disposal; and 3. Confirmed the pilot shoreline CDF at the Sawyer Street facility is protective and designated the location as a permanent disposal facility meeting protectiveness standards under the Toxic Substance Control Act, 15 U.S.C. §2601 *et seq.* (TSCA).

- ESD6 (2017): Modified the OU1 remedy to expand the OU1 area to include the OU3 area and eliminate the designation of "OU3".

Establishment of Ten Sediment Cap Areas

EPA, together with the U.S. Army Corps of Engineers (USACE) and its contractors, completed the OU1 subtidal dredging program in 2020, except for some follow-up dredging in small areas conducted in 2023 and 2024. Approximately 1 million cy of PCB-contaminated sediment was dredged and disposed either off-site or, for dredged material with lower-level PCB contamination, in the LHCC established by ESD4. During this Superfund dredging program, however, ten specific areas were deliberately *not* dredged because it was considered not feasible, advisable, or cost-effective to do so with the dredging equipment available at the time. Section III.A below discusses the technical reasons for not dredging each of these ten areas in more detail.

Seven of these ten specific areas[4] are located where the originally planned CDFs A, B, and C would have been constructed, and therefore these areas (or at least portions of these areas) were not slated to be dredged under the 1998 OU1 ROD but were to be capped in place by the CDFs. ESD 5 did modify the remedy in 2015 to eliminate the construction of these three CDFs and instead selected dredging and off-site disposal for the contaminated sediments within the seven areas.

Sediment caps were installed at these ten areas to provide interim protection of human health and the environment pending the decision on the final remedy for these areas, which is now being made through this seventh ESD. It should be noted that although these sediment caps were considered "interim" pending a final remedial decision for these areas, they were designed and constructed in a robust manner that provides for long-term stability and effectiveness. The 10 sediment cap areas are shown on **Figure 2** and discussed further below.

Summary of this Explanation of Significant Differences

[4] These seven capped areas are: Aerovox sediment cap, O-711 cap, Crib cap, L-014 cap, L-114 cap, Pilot CDF sediment cap, and the Parcel 265 cap.

This seventh ESD makes three modifications to the OU1 Remedy: 1. Finalizing the remedy for the 10 sediment cap areas; 2. Changing the PCB cleanup level from 50 to 25 parts per million or ppm for the intertidal shoreline adjacent to the proposed New Bedford River Walk; and 3. Clarifying that the scope of the remedy's Institutional Control (IC) requirements include preventing human contact risk with PCB-contaminated sediments in areas within the Site where the remedy left PCB-contaminated sediment in place that does not allow for unrestricted use/unrestricted exposure (UU/UE) (*i.e.*, residential standards).

Finalizing the OU1 Remedy for the 10 Sediment Cap Areas

EPA evaluated three alternatives for final remediation of the ten sediment cap areas and is selecting one of the alternatives. These three alternatives were:

1) incorporating the sediment caps as permanent elements of the OU1 Remedy, combined with long term monitoring and maintenance, and implementation of ICs for these capped areas **(EPA's Selected Alternative)**;

2) removal of the sediment caps and proceeding with the OU1 ESD5 dredging and off-Site disposal remedy for these areas (using sheet-piling and backfilling to protect abutting shoreline structures as well as different/heavier equipment to deal with the extensive amounts of debris where present); and

3) removal of the sediment caps and implementation of *in-situ* bioaugmentation at the ten sediment cap areas, combined with long term monitoring and maintenance, and implementation of ICs at these areas.

Through this ESD, EPA is documenting that EPA selected Alternative 1 after seeking public comment on all three alternatives. These three alternatives are evaluated in an Alternatives Analysis Report which is included in the Administrative Record (AR) for the site (see next section for availability of this AR).

Intertidal Cleanup Level Change Along the Shoreline Adjacent to the Proposed New Bedford River Walk

This ESD is also changing the OU1 Remedy's intertidal cleanup level along the shoreline adjacent to the proposed New Bedford River Walk along the Upper Harbor (see **Figure 3**). The cleanup level will be changed from the OU1 ROD's Site-specific PCB cleanup standard of 50 ppm to 25 ppm consistent with the expected change in land use from limited public access, as identified in the 1998 OU1 ROD, to current conditions with more intensive recreational use of the shoreline abutting the Harbor.

Ongoing Harbor Cleanup

This ESD is not changing any of the other remedial components of the OU1 Remedy including operation and maintenance of remedy components (including the LHCC and Pilot CDF). EPA will continue to perform the OU1 Remedy and implement ICs regarding consumption of locally

caught seafood (*e.g.,* seafood advisories, signage, and educational campaigns). EPA and MassDEP will also continue to perform long-term seafood and benthic monitoring to assess the effect of the OU1 Remedy on the entire Site, including the Outer Harbor. The goal of the fish consumption ICs is to minimize ingestion of locally caught PCB-contaminated seafood until PCBs in seafood reach safe levels. State fishing restrictions/regulations are also in effect.

Institutional Control Requirements to Prevent Human Contact Risk from Contaminated Sediments

As noted above, EPA implemented different intertidal cleanup levels throughout the Harbor depending on adjacent land uses and to address fish consumption risks in subtidal areas. The UU/UE (residential) cleanup level for human contact risk from PCB-contaminated sediments was determined to be 1 ppm PCBs (OU1 ROD, p.B-5). Except for residential intertidal shoreline areas that were cleaned up to this 1 ppm PCB standard, within the rest of the Site's intertidal zones where cleanup standards are above 1 ppm PCBs (*e.g.,* recreational and remote wetland areas) this ESD clarifies that the scope of the OU1 Remedy's IC controls include preventing human exposure with sediments that would result in human contact risk from PCB-contaminated sediment left in place that exceed the UU/UE (residential) cleanup level. ICs may also be required in areas that were inaccessible during the dredging period, (*i.e.* underneath shoreline rip rap), if it is determined that contamination remains in place exceeding the remedy's cleanup standards at a later date.

Public Comment Period

A public informational meeting was held on the Draft ESD #7 on June 10, 2025. A formal public comment period on the Draft ESD #7 was held from June 11, 2025 through August 24, 2025. During the comment period, EPA accepted written and e-mailed comments on the ESD and submissions online via https://www.regulations.gov using Docket #: EPA-R01-SFUND-2025-0131.

EPA specifically sought public comments on EPA's proposed finding under the federal Clean Water Act that the OU1 Remedy, as proposed to be modified to authorize ten permanent sediment caps, is the Least Environmentally Damaging Practicable Alternative (LEDPA) to prevent contaminated sediment from impairing wetlands and aquatic habitats at the New Bedford Harbor Superfund Site. EPA received no negative comments on this determination.

Under federal Floodplain Management and Protection of Wetlands regulations at 44 CFR. Part 9, EPA sought public comment on its determination that any proposed modification of the OU1 Remedy is protective of floodplain and wetland resources. No negative comments were received.

In addition, EPA sought public comment on EPA's determination required by regulations promulgated under TSCA at 40 CFR § 761.61(c) that this modification of the OU1 Remedy, specifically the permanent capping of PCB-contaminated sediments in the ten areas, will not

pose an unreasonable risk of injury to health or the environment. TSCA determinations for the remedy were previously made in the 1998 ROD (page 38); ESD1 (Section III.C); ESD2 (Appendix A); ESD3 (Section III); ESD4 (**Attachment B**); and ESD5 (**Attachment A**). Those TSCA determinations remain effective for the OU1 Remedy, as modified by this ESD, with the exception of the ESD2 TSCA determination, which was superseded by the ESD5 TSCA determination. EPA sought public comment on EPA's TSCA Determination that the permanent capping of PCB-contaminated sediments in the ten sediment cap areas does not result in an unreasonable risk of injury to health or the environment so long as the conditions set forth in the TSCA Determination are maintained (including maintenance and monitoring of the caps). EPA received no negative comments on the TSCA Determination.

EPA considered and responded to all formal comments received during the comment period before issuing this final ESD. The public comments and EPA's responses to them are part of the public Administrative Record (AR) for the Site. **Attachment B** includes EPA's Response to Comments received on the Draft ESD.

Availability of Records and Public Notice

The documents supporting this ESD, including the public comments and EPA's responses, have been compiled into an administrative record file for the Site, as required by the NCP at 40 CFR § 300.825(a)(2). The AR for this ESD has been developed in accordance with Section 113 (k) of CERCLA and a copy of the files associated with the AR are available for public review at the following information repositories:

New Bedford Free Public Library
613 Pleasant Street, 2nd Floor Reference Department,
New Bedford, MA 02740
(508) 961-3067

EPA Region 1
SEMS Records and Information Center, 1st Floor (by appointment only)
5 Post Office Square, Suite 100 (HSC),
Boston, MA 02109-3912
(617) 918-1440

EPA's NBH Site website: https://www.epa.gov/new-bedford-harbor

Attachment A to this ESD identifies the documents contained in the Administrative Record for this ESD. Section 117(d) of CERCLA, 42 U.S.C. § 9617(D), requires public notification of the ESD in a newspaper of general circulation. **Attachment B** includes EPA's Response to Comments received on the Draft ESD.

II. SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

Site History and Enforcement Activity

The Site, located in Bristol County, Massachusetts, extends from the shallow northern reaches of the Acushnet River estuary south through the commercial harbor of New Bedford and into 17,000 adjacent acres of Buzzards Bay (see **Figure 1**). The Site has been divided into three areas consistent with geographical features of the area and gradients of contamination. The Upper Harbor comprises approximately 250 acres. The boundary between the Upper and Lower Harbor is the Coggeshall Street bridge where the width of the harbor narrows to approximately 100 feet. The Lower Harbor comprises approximately 750 acres. The boundary between the Lower and Outer Harbor is the 150-foot-wide opening of the New Bedford hurricane barrier (constructed in the mid-1960s). The Outer Harbor is comprised of approximately 17,000 acres with its southern extent (and the Site's southern boundary) formed by an imaginary line drawn from Rock Point (the southern tip of West Island in Fairhaven) southwesterly to Negro Ledge and then southwesterly to Mishaum Point in Dartmouth. The Site is also defined by three fish-consumption closure areas, promulgated by the Massachusetts Department of Public Health (MassDPH) in 1979, which match the boundaries of the Site.

Identification of PCB-contaminated sediment and seafood in and around New Bedford Harbor was first made in the mid-1970s, as a result of EPA region-wide sampling programs. Elevated levels of heavy metals in sediment (notably cadmium, chromium, copper and lead) were also identified during this time frame. The manufacture and sale of PCBs was banned by TSCA in 1978. In 1979, MassDPH promulgated regulations prohibiting consumption of locally caught fish and shellfish within the Site due to elevated PCB levels in area seafood. Due to these concerns, the Site was proposed for the Superfund National Priorities List (the NPL) in 1982 and finalized on the NPL in September 1983. Pursuant to 40 CFR § 300.425(c)(2), the Commonwealth of Massachusetts (Commonwealth) nominated the Site as its priority site for listing on the NPL.

EPA's site-specific investigations began in 1983 and 1984. Site investigations continued throughout the rest of the 1980s and early 1990s, including a pilot dredging and disposal study in 1988 and 1989, a baseline public health risk assessment in 1989, and computer modeling of site cleanup options and an updated feasibility study for the Site completed in 1990. Thousands of additional environmental samples have been taken since then to support the implementation of the remedy.

Collectively, these investigations identified the former Aerovox facility on Belleville Avenue in New Bedford, an electrical manufacturing plant located on the western shore of New Bedford Harbor, as the primary source of PCBs to the Site. PCB wastes were discharged from the facility's operations directly to the Upper Harbor through drainage trenches and discharge pipes, or indirectly throughout the site via combined sewer overflows (CSOs) and the City's

sewage treatment plant outfall. PCBs were also released to the Harbor from the Cornell Dubilier Electronics, Inc. (CDE) facility located just south of the hurricane barrier in New Bedford.

Based on the results of these investigations, state and federal enforcement actions were initiated against parties who owned and/or controlled both the Aerovox and CDE facilities, as well as the City of New Bedford (though the City was not named a CERCLA Potentially Responsible Party for this Site), pursuant to CERCLA (against the owners/operators of the Aerovox and CDE facilities only), Massachusetts General Law c.21E (commonly referred to as "21e"), and other federal and state environmental statutes. For a summary of early enforcement actions and resulting settlements, please see Section II of the 1998 ROD https://semspub.epa.gov/work/01/38206.pdf. In September 2013, the U.S. District Court for the District of Massachusetts approved a landmark $366.25 million, plus interest, cash-out settlement with AVX Corp., whose corporate predecessor, Aerovox Corp., owned and operated the Aerovox facility (through "reopeners" of a previous 1992 settlement with AVX). With this settlement, the pace of the Harbor cleanup was accelerated. For more information on the 2013 settlement, see EPA's Site website, including the 2015 Third Five Year Review, which includes references to the 2013 settlement with AVX: https://www.epa.gov/sites/production/files/2015-10/documents/583507.pdf.

On May 4, 2023, an additional cash-out settlement with CDE for $4 million became effective, through a reopener in the 1992 settlement with CDE. The settlement with CDE for New Bedford Harbor was part of a simultaneous global $8 million settlement with CDE for both New Bedford Harbor and for the Woodbrook Road Dump Superfund Site in New Jersey.

Initially, the Site was divided into three operable units. Of the three original OUs, OU3 was merged back into OU1 through ESD6. In April 1990, EPA issued a ROD for the Hot Spot Operable Unit of the Site (OU2). The Hot Spot ROD called for dredging and on-site incineration of sediment above 4,000 ppm PCBs in the vicinity of the Aerovox facility. Dredging and temporary disposal of this sediment - about 14,000 cy in volume and 5 acres in area - into a storage cell built at EPA's Sawyer Street facility (Cell #1) began in April 1994 and was completed in September 1995. Pursuant to an April 1999 amendment to the 1990 Hot Spot ROD, the contaminated sediment was removed from the storage cell, dewatered, and transported to an offsite landfill for permanent disposal. This final offsite disposal phase of the Hot Spot remedy was completed in May 2000.

As described above, EPA issued the OU1 ROD for the cleanup of the Upper and Lower Harbor areas in September 1998. The Site cleanup is being managed by EPA, in partnership with the MassDEP. Through an Interagency Agreement, USACE is implementing the work under EPA's oversight.

Contamination Problems

The main Site concern is the widespread PCB contamination in New Bedford Harbor sediment (prior to completion of remedial dredging). PCB levels in sediment generally decrease from north to south from the Upper Harbor to the Lower Harbor and out into the Outer Harbor. Because of this sediment contamination, PCBs are also found in elevated levels in the water column and in local seafood. In addition to the PCB contamination, Harbor sediment also contains high levels of other contaminants, including heavy metals (*e.g.*, cadmium, chromium, copper and lead). High levels of solvents (*e.g.*, trichloroethylene) have also been identified in sediment adjacent to the Aerovox facility. However, because many of these other contaminants are co-located with PCBs, the OU1 ROD contains action levels only for PCBs.

As described more completely in Sections V and VI of the 1998 ROD, EPA found the PCB contamination in the Upper and Lower Harbors and in a limited area of the Outer Harbor to result in unacceptable risks to human health and the environment. The biggest human health risk was found to be from frequent (*e.g.*, weekly) ingestion of locally caught seafood. As a result, MassDPH in 1979 issued seafood consumption regulations and EPA issues seafood consumption recommendations which can be found at: https://www.epa.gov/new-bedford-harbor/fish-consumption-regulations-and-recommendations. These fish consumption regulations and recommendations are shown in **Figure 1**. Unacceptable risks were also found from frequent human dermal contact with, or incidental ingestion of, PCB-contaminated shoreline sediment. Ecologically, EPA's investigations concluded that the Harbor's marine ecosystem had become severely damaged from the widespread sediment PCB contamination.

Summary of Selected Remedy

OU1 Remedy - Dredging

The OU1 ROD called for the dredging of approximately 450,000 cy of PCB-contaminated sediments in the Upper and Lower Harbors to meet cleanup levels as presented below.

For subtidal areas, the cleanup levels, aimed at reducing human seafood consumption risks, were:

- 10 ppm PCBs for subtidal and mudflat sediment in the Upper Harbor
- 50 ppm PCBs for subtidal and mudflat sediment in the Lower Harbor

For the shoreline intertidal areas other than mudflats, the cleanup levels, aimed at reducing risk from human contact with and incidental ingestion of contaminated sediment, were:

- 1 ppm PCBs for areas bordering residential areas
- 25 ppm PCBs for shoreline areas bordering recreational (or "beachcombing") areas

- 50 ppm PCBs for other shoreline areas with little or no public access, including remote saltmarshes

The OU1 ROD called for the construction of four shoreline CDFs (A, B, C, and D) to contain and isolate the dredged sediment, associated water treatment, capping of the CDFs, long-term monitoring and maintenance, and ICs. The CDFs were conceptually located in PCB-contaminated areas to avoid the need to dredge an additional approximately 126,000 cy of sediment located within the footprints of the proposed CDFs. The ROD also required that ICs, such as the state-mandated fish consumption regulations, be in place until PCB levels in seafood reach acceptable levels for human consumption. The OU1 ROD also authorized the Commonwealth of Massachusetts to conduct additional navigational dredging and on-site disposal of such sediments contaminated with PCBs below the OU1 ROD cleanup levels as part of an enhanced remedy under CERCLA, known as the "State Enhanced Remedy."

The OU1 ROD (p.ii) described IC control requirements for the remedy as:

> Institutional controls, including seafood advisories, no-fishing signs and educational campaigns will be implemented to minimize ingestion of local PCB-contaminated seafood until PCBs in seafood reach safe levels. State fishing restrictions will also be in effect until such time as the Commonwealth deems it appropriate to amend them. Additional controls will protect the capped CDFs and allow for certain future uses.

Based on additional information and refinements of the cleanup approach for OU1, EPA has issued six ESDs modifying the OU1 ROD Remedy, as discussed above.

As of October 2024, EPA has completed all subtidal dredging called for in the OU1 ROD, except in the areas under the ten sediment caps, totaling approximately 1 million cy dredged and disposed. Similarly, EPA has completed all intertidal excavation called for in the OU1 ROD, except in the areas under the ten sediment caps, totaling approximately 102,000 cy removed and disposed.

In addition to the EPA Superfund dredging, various navigation-related projects authorized under the State Enhanced Remedy component of the OU1 ROD have led to the dredging and disposal (in five navigational CAD cells constructed within a State-designated Dredged Material Management Plan area) of an additional approximately 1 million cy of less PCB-contaminated sediment (less than 50 ppm PCBs) within the Lower Harbor.

III. EXPLANATION OF SIGNIFICANT DIFFERENCES

A. The Ten Sediment Caps

As discussed above, EPA together with the USACE and its contractors completed the OU1 subtidal dredging program in 2020 (some small areas were re-dredged in 2023 and 2024). Approximately 1 million cy of PCB-contaminated sediment was dredged and disposed either

off-site or, for dredged material with lower-level PCB contamination, in the LHCC. During this Superfund dredging program, however, ten specific areas were deliberately *not* dredged because it was considered not feasible, advisable or cost-effective to do so with the dredging equipment available at the time. The discussion of each sediment cap in this section (see below) includes the technical reason(s) for placing them as opposed to the remedial dredging called for in the 1998 ROD, as modified by subsequent ESDs. The ten sediment caps were installed to provide interim protection of human health and the environment pending a decision on the final remedy for these areas, which is being made through this ESD after public comment. In support of this ESD, EPA developed an Alternatives Analysis Report, which is included in the AR for this ESD. Through this ESD, EPA is selecting Alternative 1, which makes the ten sediment caps permanent components of the OU1 Remedy.

Summary information regarding each of the ten sediment caps is listed below (see also **Figure 2** for cap locations). Additional detail for each sediment cap can be found in the aforementioned Alternatives Analysis Report. All ten caps except for the very small (0.04 acre) Parcel 265 cap and the Outer Harbor Pilot Cap were constructed with an isolation layer containing high levels of organic carbon; this layer functions to filter out any dissolved PCBs by adsorption onto the organic carbon that may otherwise be upwelling /discharging to the river/harbor since, at a molecular level, PCBs will strongly adhere to carbon rather than stay dissolved in water.

1. Aerovox Sediment Cap

Year Constructed: 2018-2019

Size: 3.14 acres

Reason for constructing: The State 21e cleanup at the adjacent, onshore former Aerovox facility had not been completed before the final pass dredging of the abutting river sediment was performed in the 2019 timeframe. EPA did not want the recently remediated/dredged riverbed to potentially become recontaminated from PCB migration in groundwater from the Aerovox 21e site.

2. O-711 Cap

Year Constructed: 2020

Size: 12,320 sq. ft.

Reason for constructing: Sampling of sediments in the area documented that PCB levels in sediment were *increasing* with depth at this location, with 11,500 ppm found at the 4.5 – 5.0 ft depth interval below the riverbed after several attempts to reach the ROD-based cleanup level during remedial dredging. This PCB profile indicated the potential presence of Dense Non-Aqueous Phase Liquid (DNAPL)[5] at depth or a potential preferential bedrock groundwater

[5] DNAPL is highly concentrated heavy liquid contamination (*e.g.*, oily matter) that does not dissolve well in water, or move with groundwater, but rather acts as a separate mass that sinks within the subsurface environment.

pathway from the Aerovox site; continued attempts at dredging could potentially have made the problem worse by releasing significant PCBs to the water column and to the atmosphere.

3. Crib Cap

Year Constructed: 2020

Size: 19,884 sq. ft.

Reason for constructing: Heavy derelict infrastructure and debris within the sediment in this area prevented dredging. These included two wooden structures or "cribs" constructed in the river around former water intake facilities (the nearby mills formerly used river water for fire suppression) as well as associated valving and piping laying on/in the riverbed.

4. L-014 Cap

Year Constructed: 2020

Size: 6,483 sq. ft.

Reason for constructing: The large amounts of mostly construction type debris (*e.g.,* bricks) encountered in sediment in this area prevented dredging. Oil sheening was also encountered during nearby dredging, potentially due to nearby former leaking underground oil storage tanks (which have been addressed by the state's 21e program). There was concern that additional debris removal and dredging could make this oil release/sheening problem worse.

5. L-114 Cap

Year Constructed: 2020

Size: 6,903 sq. ft.

Reason for constructing: The potential for DNAPL at depth caused concern that additional dredging in this area would result in significant PCB releases to the water column and to the atmosphere.

6. Pilot CDF Shoreline Cap

Year Constructed: 2020

Size: 54,782 sq. ft. (1.26 acres)

Reason for constructing: It was considered inadvisable to dredge next to the earthen perimeter dike of the Pilot CDF, for fear of harming its structural integrity. In addition, in some areas the underlying geotextile fabric that was used for construction of this dike was present at or near the sediment surface abutting the CDF. The presence of this fabric prevented dredging, absent an additional operational step to safely cut and remove this fabric, if possible. The cap extent

was designed to cover this exposed fabric as well as high PCB sediment areas, so that future boating activities would not damage this fabric or potentially the structural integrity of the dike.

7. Parcel 265 Cap

Year Constructed: 2016

Size: 1,635 sq. ft.

Reason for constructing: Confirmatory sampling during the 2016 "Parcel 265" intertidal remediation showed high post-excavation PCB levels in one small area, even after excavating 14 feet below the riverbed. It is hypothesized that a former water intake facility, wooden pier structure and associated navigational dredging in this area may have caused this result. The decision was made to cap the area since further excavation would have been difficult or impossible with the equipment on hand.

8. Coggeshall East Cap

Year Constructed: 2020

Size: 94,492 sq. ft. (2.17 acres)

Reason for constructing: It was considered inadvisable to dredge next to the earthen embankment supporting the Coggeshall Street bridge and associated approach roadways, for fear of harming the structural integrity of the embankment, the roadways and/or the bridge. In addition, there was considerable heavy debris in the sediments in this area, likely from construction of a temporary bridge during construction of the Coggeshall Street bridge. Note that this is the only sediment cap that is *not* located in New Bedford but rather is in Fairhaven.

9. Coggeshall West Cap

Year Constructed: 2020

Size: 23,209 sq. ft. (0.53 acres)

Reason for constructing: It was considered inadvisable to dredge next to the earthen embankment supporting the Coggeshall Street bridge and associated approach roadways, for fear of harming the structural integrity of the embankment, the roadways and/or the bridge. In addition, there was considerable heavy debris in the sediments in this area, likely from construction of a temporary bridge during construction of the Coggeshall Street bridge.

10. Pilot Outer Harbor Cap

Year Constructed: 2005

Size: 18.9 acres

Reason for constructing: The OU1 ROD described that sediment remediation would generally proceed north to south, to address the "worst first" areas of harbor contamination. The Outer Harbor Pilot Cap area was the southernmost area identified in the OU1 ROD to be dredged, with lower levels of PCBs present than in the Upper Harbor and Lower Harbor. Thus, it would have been the last area remediated. Based on the funding stream available at the time, the Region did not expect to dredge the Outer Harbor Pilot Cap area until about 2025. However, in 2005, excavation of the clean bottom-of-CAD (BOC) material from Navigational CAD Cell #2 in NBH by the City of New Bedford presented an opportunity for beneficial reuse by using this clean sandy material to cap the relatively low levels of PCB-contaminated sediment in this area (rather than dispose of this BOC material at an approved offshore disposal site). This resulted in this area being remediated cost-effectively at least 16 years sooner than otherwise would have occurred per the Superfund subtidal remedial OU1 dredging program (which was substantively completed for the upper and lower harbor in 2020). **Figure 4** shows the location of the 2005 sediment cap covered by this ESD. This figure also shows an abutting cap placed in 2015 (by others) as a mitigation/habitat creation project for a State Enhanced Remedy dredging project; this 2015 cap is not covered by this ESD. As noted by MassDEP in its comments on the Draft ESD, the final area capped by the Pilot Outer Harbor Cap is larger than the area designated for remediation under the OU1 ROD. EPA will coordinate with MassDEP on the operation and maintenance required for the Pilot Outer Harbor Cap area.

B. Intertidal Cleanup Level Change Adjacent to the Proposed New Bedford River Walk

In addition, through this ESD7, EPA is changing the shoreline intertidal cleanup level adjacent to the proposed New Bedford River Walk (*i.e.*, the western shoreline of the Upper Harbor north of Coggeshall Street) from 50 ppm to 25 ppm PCBs, to be protective of the recreational land use that will result.

Since the 1998 OU1 PCB cleanup standards were established, significant land use changes have occurred along the Site, particularly along the Upper Harbor shoreline in New Bedford. Many of the shoreline mills that were active at the time of the 1998 OU1 ROD have been converted into residential or recreational use. Several mills still support light manufacturing while others have been repurposed for a diverse range of uses including housing, business incubating and artist live-work space.

Specifically, the City of New Bedford is in the process of planning a River Walk along the shoreline, which will be a 17,000-foot (3.2 mile) linear recreational waterfront path along the western bank of the Acushnet River north of the Coggeshall Street Bridge.

The purpose of the River Walk Project is to construct a pedestrian greenway along the upper Acushnet River which will create an approximately 25 foot-wide upland riparian zone, with native plant species; provide open space/new park land for mostly passive recreation; and create opportunities for social interaction among the local community, the residents of the City, and visitors to New Bedford (Brown, Richards & Rowe, Inc. et al., 2023).

As documented in the 1998 OU1 ROD and subsequent CERCLA Five-Year Reviews,[6] EPA has long been aware of changes in land use trends around the Site, particularly the steady change in land use along the New Bedford Upper Harbor shoreline from commercial and/or industrial to recreational and residential. For example, the 1998 OU1 ROD identified changes in land use for the Coffin Avenue Cove/Riverside Park area from industrial to recreational so that EPA cleaned up the adjacent areas of the Acushnet River to the 25 ppm PCB recreational cleanup standard. In the 26-plus years since the 1998 ROD was issued, this shift in land use along the Harbor has only increased.

Due to this trend towards riverfront recreational land use along the planned River Walk, EPA is changing the existing shoreline/intertidal 50 ppm PCB cleanup standard called for under the current OU1 Remedy, which was established for areas of limited public access (ecologically sensitive and remote saltmarshes), to a cleanup standard of 25 ppm PCBs. The new cleanup standard (which has already been implemented) is protective for a greater level of public access, based on beachcombing/recreational land use along the Upper Harbor shoreline in New Bedford. Upon adoption of the revised cleanup standard, ICs will be established to prevent exposures to PCB-contaminated sediments exceeding recreational use levels (*i.e.,* unrestricted use exposures).

C. Institutional Control Requirements to Prevent Human Contact Risk from Contaminated Sediments

In this ESD, EPA is also clarifying that the scope of the OU1 Remedy's ICs include preventing human contact risks where PCB-contaminated sediments have been left in place exceeding UU/UE (residential) cleanup levels. As noted in the OU1 ROD (p.42) EPA reviewed risks from direct human contact with and accidental ingestion of PCB-contaminated sediments and concluded that cleanup levels should be derived on an area-by-area basis to more accurately reflect the land use and exposure scenarios that apply. Therefore, the different intertidal cleanup standards applied throughout the Harbor were established that addressed human contact risk based on the level of human activity within each area.[7] ESD1 (p.5) further incorporated into the OU1 Remedy new human contact risk assessment practices and cleanup levels for intertidal sediments in areas prone to beach combing and in areas where residences abutted the harbor. These remedy changes, however, did not expressly state that the OU1 Remedy's Institutional Controls should include restrictions on activities that would result in human contact risk from PCB-contaminated sediments left behind within each cleanup zone (other than the Intertidal Residential areas which achieved UU/UE). Therefore, through this ESD, it is clarified that the scope of the OU1 Remedy Institutional Controls include preventing human

[6] Under the legal requirements of CERCLA, EPA must review the protectiveness of CERCLA remedies at least every five years.

[7] Subtidal cleanup standards were not based on human contact risk since there is expected to be minimum human contact with the subtidal sediments. However, ICs do still need to address activities in the subtidal zone that may cause a human contact risk, such as the handling of dredged sediments.

contact risk throughout the Site where PCB concentrations exceed UU/UE cleanup levels, including shoreline areas. Institutional controls, through notice to EPA of municipal wetland permitting applications, have already been established to address preventing exposure to PCB-contaminated sediments that exceed UU/UE cleanup levels.[8] In July 2011, the U.S. Coast Guard designated the Outer Harbor Pilot Sediment cap area as a Regulated Navigation Area (RNA) at EPA's request following a formal rule making process (76 Fed. Reg. 35742 (June 20, 2011)). This RNA is an IC that restricts persons and vessels from disturbing the sediment cap, which includes, but is not limited to anchoring, dragging, trawling, and spudding within this area. The Outer Harbor Pilot Sediment cap is identified on navigational charts. Additional Institutional Controls measures to prevent human contact exposure risks may be established, if determined to be necessary and practicable. ICs may also be required in areas that were inaccessible during the dredging and intertidal excavation period, (*i.e.,* underneath shoreline rip rap), if it is determined that contamination remains in place exceeding the remedy's cleanup standards at a later date. EPA is currently developing a comprehensive Institutional Control Implementation and Assurance Plan ("ICIAP")[9] for the Site. EPA will continue to coordinate with MassDEP and other stakeholders, including the City of New Bedford, on IC scope and implementation. EPA recognizes the tremendous post-remedial economic, natural resource, and development potential of the New Bedford Harbor Superfund Site, including boating activity in the Upper Harbor and recreational activities along the shoreline, and EPA is committed to work collaboratively with the City of New Bedford, its property owners, and current and future stakeholders to ensure that short-term and long-term redevelopment occur in a manner that remains consistent with the protectiveness of the Superfund remedy and the appropriate conservation of existing and restored shoreline and other natural resources.

IV. DESCRIPTION OF CHANGES TO THE SELECTED REMEDY

Regarding the remedy modification to address the ten sediment cap areas, EPA is selecting Alternative 1 - incorporating the sediment caps as permanent elements of the OU1 Remedy – as the final remedy for these ten sediment cap areas. This determination is based on, among other things, the protectiveness, cost-effectiveness, lack of short- and long-term risks and the fact that the sediment caps are already in place (*i.e*., risks to human health and the environment are already adequately addressed). The estimated costs for the three sediment cap alternatives discussed herein are shown below:

[8] City of New Bedford amended Chapter 15, Licenses and Permits, Business Regulation; Article VII Wetlands Protection ordinance; Town of Fairhaven amended Chapter 192, Town of Fairhaven Wetlands Bylaw.

[9] An Institutional Control Implementation and Assurance Plans ("ICIAP") is a document designed to systematically: (a) establish and document the activities associated with implementing and ensuring the long-term stewardship of ICs: and (b) specify the persons and/or entities that will be responsible for conducting these activities.

Estimated Costs for the Three Sediment Cap Alternatives			
Alternative	*Construction Cost*	*30 Year O&M Cost*	*Net Present Value*
1 - Keep caps in place	$0 (already in place)	$1.3M	$1.02M
2 - Remove the caps and perform dredging	$132M	$0 (no additional site-wide costs)	$127.2M
3 - Remove the caps and perform *in-situ* bio-augmentation	$58.2M	$36.7M	$80.6M

As described above, EPA is also changing the intertidal PCB cleanup level for the shoreline adjacent to the proposed New Bedford River Walk from 50 ppm to 25 ppm, which will be the basis for revised ICs for the area. EPA is also clarifying in this ESD that the scope of the OU1 Remedy's Institutional Controls include preventing human contact risks where PCB-contaminated sediments have been left in place exceeding UU/UE cleanup levels.

This ESD is not changing any of the other remedial components of the OU1 Remedy. EPA will continue to perform the OU1 Remedy, including operation and maintenance of components of the remedy (*i.e.*, the LHCC and the Pilot CDF), and implement institutional controls on seafood consumption (seafood advisories, signage, and educational campaigns) and will, together with MassDEP, continue to perform long-term seafood monitoring. The goal of the fish consumption institutional controls is to minimize ingestion of locally caught PCB-contaminated seafood until PCBs in seafood reach safe levels. State fish consumption regulations are also in effect. The seafood monitoring program will also help evaluate the long-term effectiveness of the OU1 Remedy. As noted above, the OU1 Remedy's ICs will also include preventing exposure to PCB-contaminated sediments that would pose a human contact risk. EPA will also continue to perform long term monitoring of sediment and biota and will continue to conduct Five-Year Reviews for the Site.

V. APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

The term "Applicable or Relevant and Appropriate Requirements" or "ARARs" are the legal statutes and regulations identified in the 1998 OU1 ROD and subsequent ESDs that apply to the CERCLA cleanup. A review of the ARARs identified in the OU1 Remedy documents was performed to identify any potential new ARARs or changes to existing ARAR requirements that would pertain to making the ten sediment caps permanent, changing the cleanup standards along the proposed Riverwalk shoreline or clarifying that the OU1 Remedy's ICs include preventing human contact risks from exposure to PCB-contaminated sediments. ARARs pertaining to the capping, monitoring and maintenance of the LHCC's underwater sediment cap

were added to the OU1 Remedy in ESD4. These ARARs were also determined to be the legal requirements that would also apply to any remedy change that makes the ten sediment caps permanent components of the OU1 Remedy. The list of ARARs can be found at https://semspub.epa.gov/src/document/01/479471 (see *Table 2* therein). No ARAR changes are involved in modifying the shoreline cleanup standard along the proposed River Walk shoreline or clarifying the scope of the OU1 Remedy's Institutional Controls.

As discussed in Section VIII below, this ESD's modification of the OU1 Remedy to make the sediment caps permanent requires the issuance of specific findings or determinations under several existing ARARs. Specifically,

- TSCA regulations at 40 CFR. § 761.61(c) require a finding by the Director, Superfund and Emergency Management Division, EPA Region 1, that any modification of the OU1 Remedy for PCBs will not pose an unreasonable risk to human health or the environment.

- Section 404 of the Clean Water Act (CWA) requires a determination that any remedy change involving the dredge or filling of federal jurisdictional wetlands or aquatic habitats be the Least Environmentally Damaging Practicable Alternative (LEDPA).

- Under federal Floodplain Management and Protection of Wetlands regulations at 44 CFR. Part 9, EPA determined that any proposed modification of the OU1 Remedy is protective of floodplain and wetland resources.

VI. SUPPORTING AGENCY COMMENTS

EPA accepted comments on the Draft ESD during a formal public comment period. In this Final ESD, EPA has considered comments that the State provided on the Draft ESD. **Attachment B** includes EPA's responses to comments received on the Draft ESD. The State concurs with this final Seventh ESD. A copy of the State's letter of support is included as **Attachment C**.

VII. STATUTORY DETERMINATIONS

The remedy as modified herein remains protective of human health and the environment, complies with all federal and state requirements that are applicable or relevant and appropriate to the remedy, and is cost-effective. In addition, the remedy as modified utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for this Site.

Specific determinations are being made as required by ARARs for the remedy as follows:

- Pursuant to Section 404 of the Clean Water Act, EPA determined that the permanent caps are the LEDPA for the ten capped areas. EPA's determination is based on the

technical difficulties with conducting dredging in the ten areas that would require more temporary disruption of the aquatic environment than leaving the capped sediments in place. In addition, since PCB-free material was used to construct the caps, surface PCB contamination within the caps' footprints has been eliminated. Under Alternative 1, clean cap material would be maintained that would contain no PCBs in the biologically active surface layer and therefore prevent any contaminant exposure to the aquatic environment. Recolonization of cap surfaces with aquatic organisms, including oysters (*Crassostrea virginica)* in at least two caps, has been documented.

- Pursuant to Floodplain Management and Protection of Wetlands regulations at 44 CFR Part 9, EPA is making the determination that maintaining permanent sediment caps in the ten areas is protective of floodplain resources and federal jurisdictional wetlands/aquatic habitats. Cap maintenance activities would have no impact on flooding in the Harbor and a 500-year storm engineering evaluation demonstrates that the caps would withstand such a storm event and not release any underlying sediment contamination (Jacobs, 2024). Maintenance of clean covers in the ten areas will improve the aquatic environment by removing any exposure to PCBs in the ten areas.

- Changing the PCB cleanup standards along the shoreline adjacent to the proposed River Walk will have no impacts to wetland and floodplain resources because removal of all contaminated sediment that exceeds the revised standards has already occurred and the shoreline has been restored with clean backfill and native wetland vegetation. ICs have been established to prevent exposures to PCB-contaminated sediments exceeding recreational use levels (*i.e.,* unrestricted use exposures).

- Pursuant to TSCA regulations at 40 CFR 761.61(c), EPA is making the determination that the maintenance of permanent caps in the ten areas discussed herein and the change in the PCB cleanup standards along the shoreline adjacent to the proposed River Walk does not result in an unreasonable risk of injury to health or the environment. ESD #7 also clarifies that the scope of Institutional Controls (ICs) for the OU1 ROD includes preventing human health risks from dermal contact with, or incidental ingestion of, harbor sediments which were not remediated to residential standards (*i.e.*, 1 ppm PCBs). Specifically, the determination includes the following findings issued by the Director of the Superfund and Emergency Management Division at EPA Region 1 (see Section IX, below):

    - Based on prior manufacturing operations in New Bedford, PCB-contaminated sediments in New Bedford Harbor likely meet the definition of PCB remediation waste as defined under 40 CFR Section 761.3 and thus are regulated for cleanup and disposal under 40 CFR Part 761.

- In accordance with the requirements under the Toxic Substances Control Act (TSCA) and 40 CFR Section 761.61(c), I have reviewed the Administrative Record for the site and considered the maintenance and monitoring of permanent sediment caps for the disposal of PCB-contaminated sediment set out in the final ESD #7 for the first operable unit of the New Bedford Harbor Superfund Site. Under this Section, PCB remediation waste may be disposed of in a manner other than prescribed under Section 761.61(b) provided EPA determines that this alternative disposal does not result in an unreasonable risk of injury to health or the environment. The ESD includes maintenance and monitoring of ten permanent sediment caps over PCB-contaminated sediment. Based on the information provided, the ESD will not pose an unreasonable risk of injury to health or the environment as long as the following conditions are met:
-

1. Water quality monitoring shall be performed during any maintenance work on the caps to ensure that turbidity levels comply with the Superfund harbor cleanup performance criteria (see https://semspub.epa.gov/work/01/580306.pdf).

2. The ten permanent caps are capped with a minimum of 2 feet of clean material. All caps except the Parcel 265 cap and the Outer Harbor Pilot Cap have an isolation layer containing a minimum organic content of 1.5%.

3. The Parcel 265 sediment cap is deemed to be protective without the isolation layer because the total area of this cap is significantly smaller (0.037 acres) when compared to the size of the upper harbor (about 1,000 acres) and the entire NBHSS (18,000 acres). Additionally, the >2-ft cap thickness will prevent the release of PCBs into the aquatic environment that would pose an unreasonable risk to human health and the environment.

4. The Outer Harbor Pilot Cap is protective without the isolation layer since it has been monitored since 2005 using both bathymetry and sampling of PCB levels on its surface. The bathymetry surveys show that the cap is physically stable. The PCB sampling shows that the cap is functioning as designed with maximum PCB levels approximately two orders of magnitude lower post-capping than pre-capping (e.g., 1.12 ppm versus 94 ppm).

5. The ten permanent caps shall be monitored to ensure that the caps are functioning as designed and that the integrity of each cap is maintained. Monitoring shall include, at a minimum, bathymetric surveys, visual inspections at low tide, and, where appropriate, PCB flux monitoring. Site-wide water quality monitoring and benthic organism enumeration shall be continued to monitor the overall effectiveness of the Remedy, including any impacts from the ten sediment caps. The fifth year's cap monitoring report shall include a recommended frequency for future monitoring, for EPA approval, but in no event shall this future monitoring frequency be less than once every five years. Monitoring reports for each monitoring event shall be submitted to EPA no later than one month after all validated monitoring data has been received for a given monitoring event.

6. Institutional controls shall be implemented and enforced to ensure the long-term integrity of the caps. These may include, but not be limited to, collaboration with appropriate harbor stakeholders to ensure that future shoreline development projects or navigational dredging does not negatively impact the caps. EPA will also assist these stakeholders in developing and implementing ICs that will protect the integrity and protectiveness of the caps.

- That if EPA receives notice, through the institutional controls established for the remedy, that future shoreline development may disturb areas of Harbor shoreline that were inaccessible to remedial efforts, EPA will require an assessment of any underlying soil/sediment to determine if the material exceeds remedy cleanup standards and address any such sediments in a manner that will not pose an unreasonable risk of injury to health or the environment.

- Changing the PCB shoreline cleanup standard adjacent to the proposed River Walk in New Bedford from 50 ppm to 25 ppm is protective of recreational receptors who may occasionally wade or walk into the abutting mudflats or saltmarsh areas seaward of the riverbank. ICs have been established to prevent exposures to PCB-contaminated sediments exceeding recreational use levels (*i.e.,* unrestricted use exposures).

VIII. PUBLIC PARTICIPATION COMPLIANCE

EPA maintains meaningful public outreach regarding the Site including, among others, an extensive website, emailed community updates, and the holding of public meetings to keep the

public up to date on the Site's cleanup status. EPA held a public meeting on June 10, 2025 to present the Draft ESD. During the meeting, EPA announced the opening of the comment period. A notice of the comment period was published in the New Bedford Standard Times newspaper, the New Bedford Light on-line publication, the Fairhaven Neighborhood News, and the Dartmouth Weekly. The comment period ran from June 11, 2025 until August 24, 2025. **Attachment B** to the ESD includes EPA's responses to comments received on the Draft ESD.

IX. DECLARATION

For the foregoing reasons, by my signature below, I approve the issuance of this seventh Explanation of Significant Differences for the New Bedford Harbor Superfund Site located in New Bedford, Acushnet, Fairhaven and Dartmouth, Massachusetts and the changes and conclusions stated therein. Through my signature I also approve the determination, under 40 CFR § 761.61(c) of the regulations promulgated under TSCA, presented in Section VII that the OU1 Remedy modifications approved under this seventh ESD do not result in an unreasonable risk of injury to health or the environment.

Bryan Olson Digitally signed by Bryan Olson Date: 2025.09.30 19:26:46 -04'00'

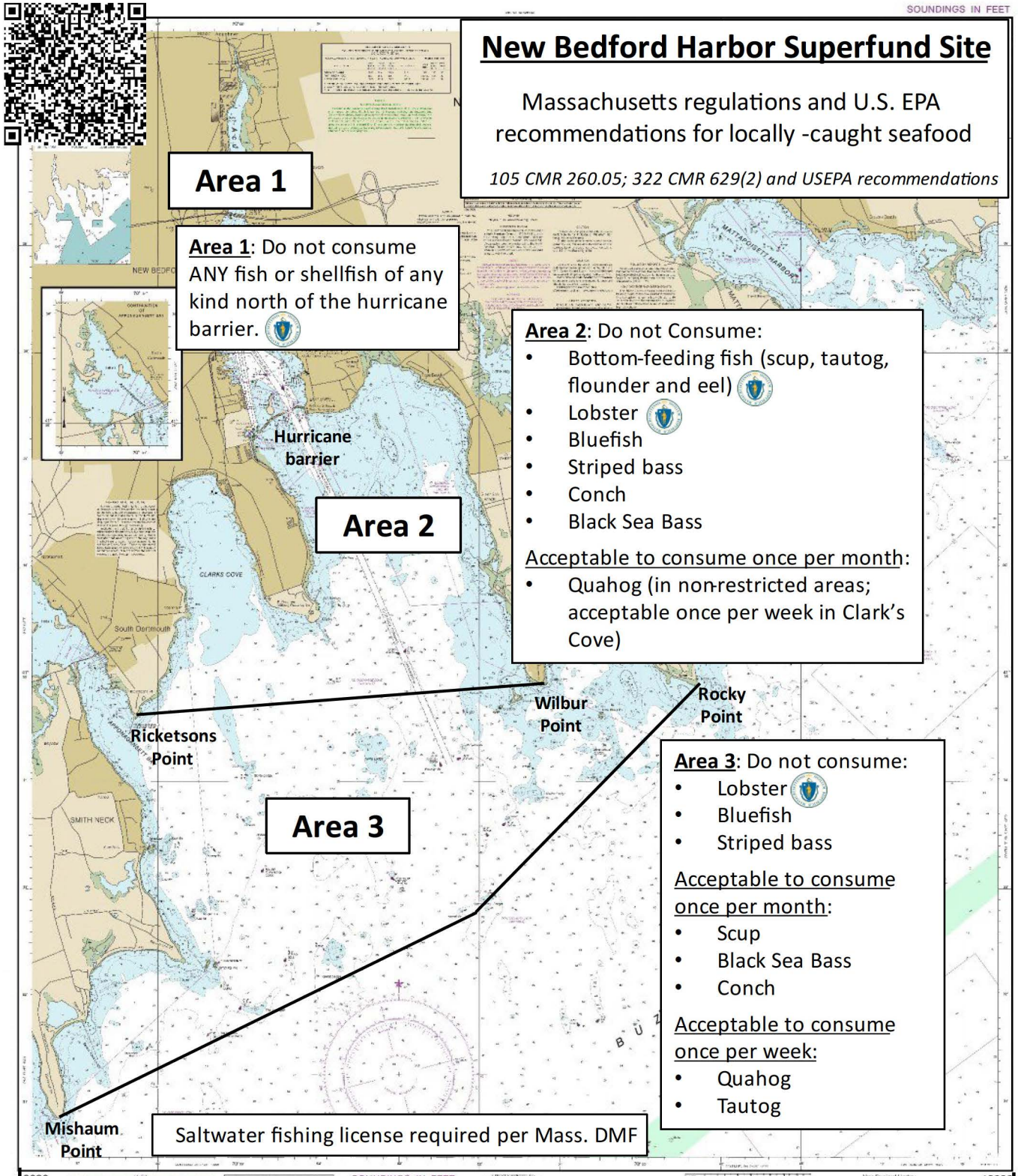
9/30/25

Bryan Olson, Director
Superfund and Emergency Management Division
EPA Region

Date

FIGURES

Figure 1 – Locus Map with Fish Consumption Closure Areas



For non-English **translation**, recommendations for **sensitive populations,** (young children, pregnant women, etc.) **fish identification photos**, and **health information regarding PCBs** use the QR code in top left corner.

Seafood is an important part of a healthy diet provided it's caught in approved areas. The restrictions listed here are due to PCB (Polychlorinated biphenyl) contamination.

Figure 2 – Location of the Ten Sediment Caps

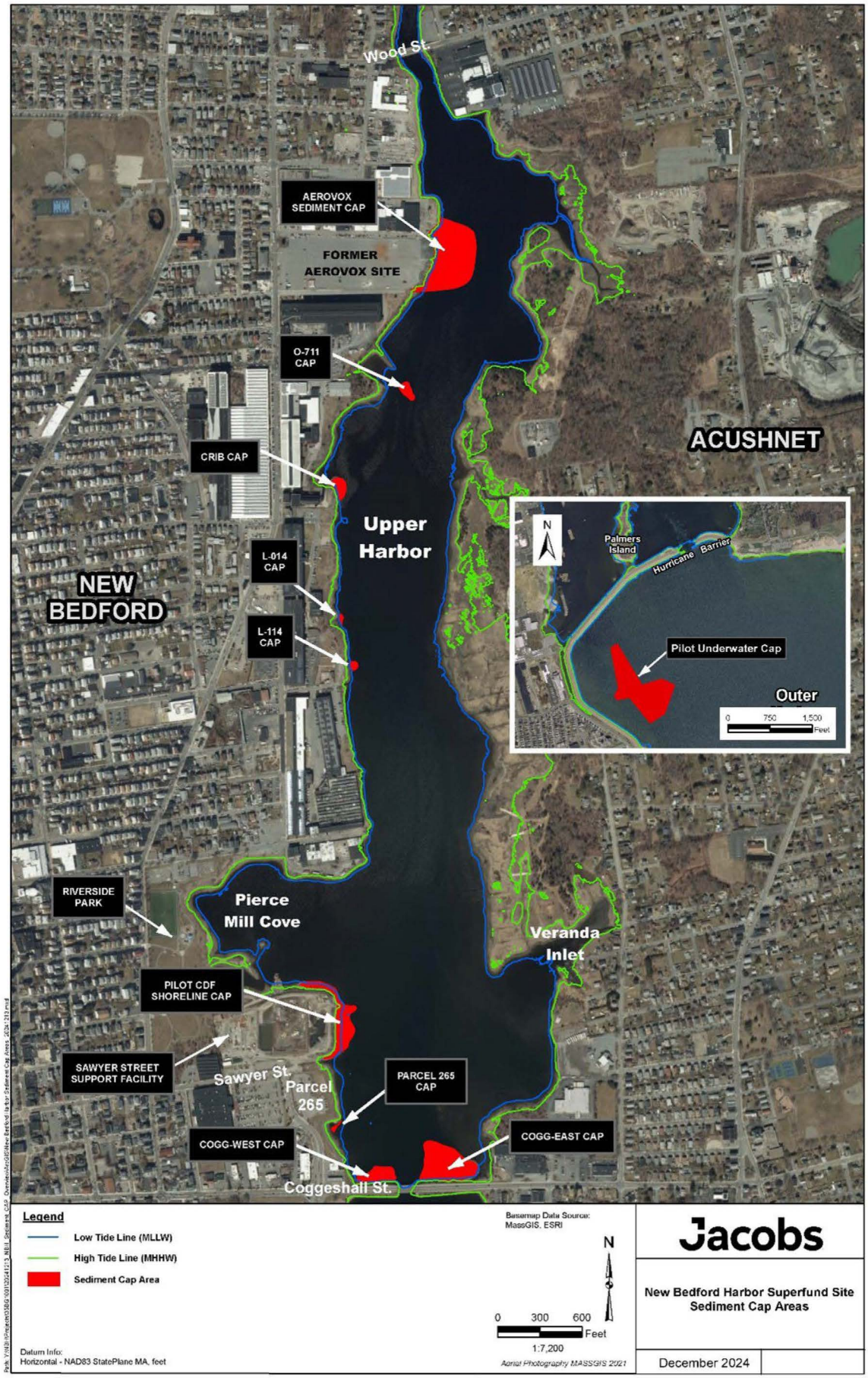
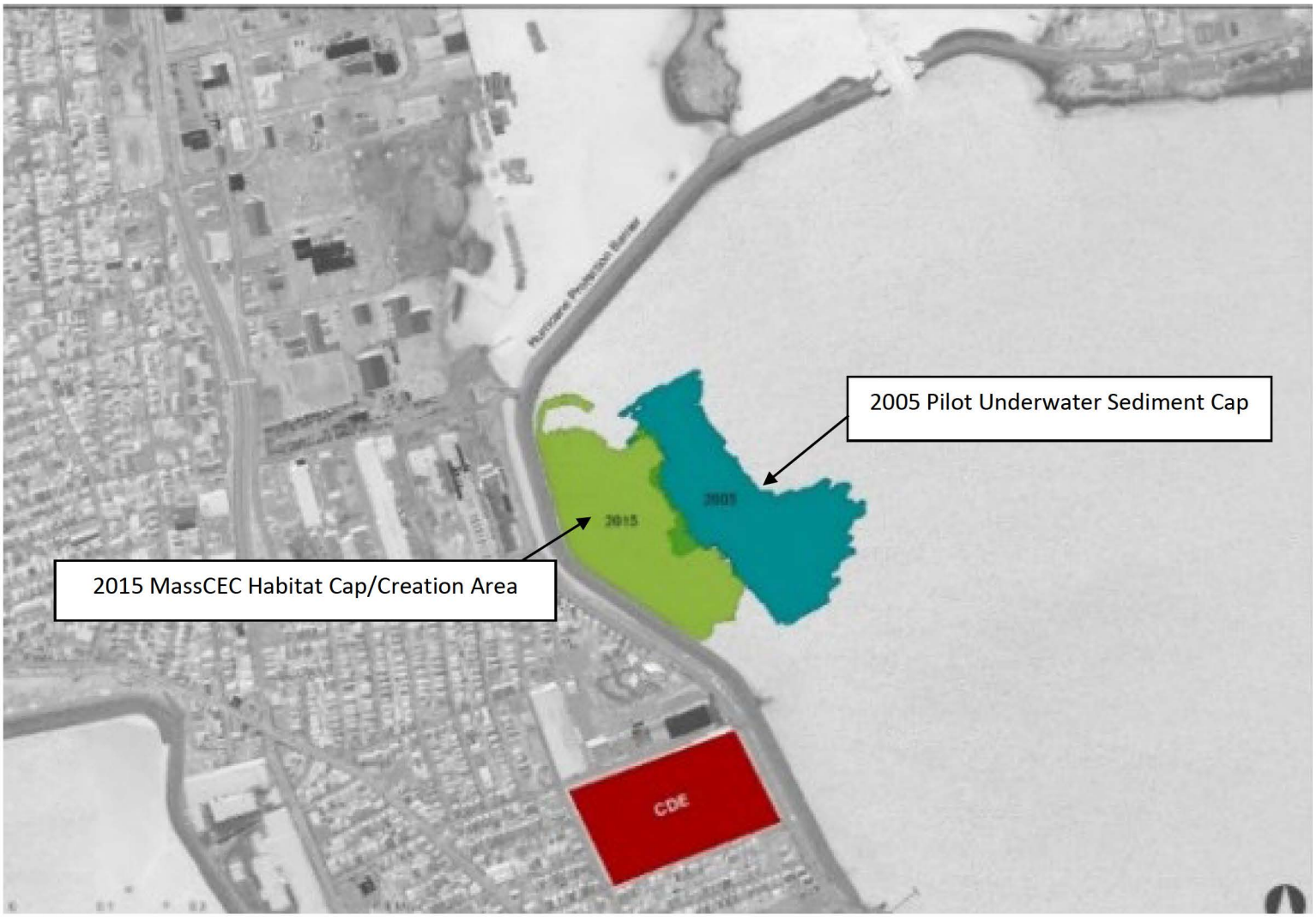


Figure 3 – Location of the Proposed New Bedford River Walk

Figure 4 – Pilot Outer Harbor Cap: 2005 and 2015 Cap Footprint Areas

(note that only the 2005 cap area is addressed by this ESD)



ATTACHMENT A

LIST OF DOCUMENTS IN ADMINISTRATIVE RECORD

Seventh Explanation of Significant Differences for the New Bedford Harbor Superfund Site, New Bedford, Massachusetts

AR 67945 Explanation of Significant Differences October 2025

Document ID	Title	Document Date	Page Count	Resource Type	Program Information	Author	Addressee	Access Control	Region	URL
695929	EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) - OPERABLE UNIT (OU) 1	09/30/2025	47	RPT / Report	053-REMEDIAL/0533-Remedy Characterization/05.04-RECORD OF DECISION (ROD)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695929
695930	RESPONSIVENESS SUMMARY FOR EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) - OPERABLE UNIT (OU) 1	09/30/2025	12	RPT / Report	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695930
695928	LETTER REGARDING CONCURRENCE WITH EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) NUMBER 7	09/30/2025	2	LTR / Letter	053-REMEDIAL/0533-Remedy Characterization/05.04-RECORD OF DECISION (ROD)	R01: Garcia-serrano, Millie (MA DEPT OF ENVIRONMENTAL PROTECTION)	R01: Olson, Bryan (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695928
100036555	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	08/24/2025	1	ROC / Record of Communication	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: (AHRQ)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036555
100036557	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	08/24/2025	1	ROC / Record of Communication	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Anonymous	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036557
100036558	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	08/24/2025	1	ROC / Record of Communication	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Anonymous	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036558
100036561	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	08/23/2025	5	LTR / Letter	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Amos, Bennett (REMBAC ENVIRONMENTAL LLC), R01: Ghosh, Upal (REMBAC ENVIRONMENTAL LLC), R01: Menzie, Charles (REMBAC ENVIRONMENTAL LLC), R01: Sowers, Kevin R (REMBAC ENVIRONMENTAL LLC)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036561
100036556	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	08/23/2025	1	ROC / Record of Communication	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Anonymous	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036556
100036025	LETTER PROVIDING COMMENT AND CONCURRENCE ON DRAFT EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) 7	08/22/2025	5	LTR / Letter	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Craffey, Paul (MA DEPT OF ENVIRONMENTAL PROTECTION)	R01: Kelly, Christopher (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036025
100036024	LETTER PROVIDING COMMENT ON DRAFT EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) 7	08/22/2025	4	LTR / Letter	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Mitchell, Jonathan F (CITY OF NEW BEDFORD)	R01: Sanborn, Mark (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036024
100036559	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	07/30/2025	1	ROC / Record of Communication	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Villandry, Karen (HANDS ACROS THE RIVER COALITION, INC)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036559
100036560	PUBLIC COMMENT ON PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD)	07/22/2025	2	ROC / Record of Communication	053-REMEDIAL/0533-Remedy Characterization/05.03-RESPONSIVENESS SUMMARY	R01: Rogers, Jeff (NEW BEDFORD (MA) RESIDENT)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036560
691424	MEETING PRESENTATION: VIRTUAL PUBLIC MEETING	06/10/2025	42	MTG / Meeting Document	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.04-PUBLIC MEETINGS/HEARINGS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691424
689120	PROPOSED DRAFT SEVENTH EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD) - OPERABLE UNIT 1 (OU1)	06/10/2025	37	RPT / Report	053-REMEDIAL/0533-Remedy Characterization/05.04-RECORD OF DECISION (ROD)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689120
689163	PUBLIC NOTICE AS APPEARING IN DARTMOUTH WEEK: NEW BEDFORD HARBOR SUPERFUND SITE PUBLIC MEETING	06/05/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRES RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689163
689164	PUBLIC NOTICE AS APPEARING IN FAIRHAVEN NEIGHBORHOOD NEWS: NEW BEDFORD HARBOR SUPERFUND SITE PUBLIC MEETING	06/05/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRES RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689164
689165	PUBLIC NOTICE AS APPEARING IN STANDARD TIMES: NEW BEDFORD HARBOR SUPERFUND SITE PUBLIC MEETING	06/05/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRES RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689165
689160	NEWS RELEASE: NEW BEDFORD HARBOR SUPERFUND SITE PUBLIC MEETING SCHEDULED FOR 06/10/2025	06/03/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRES RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689160
688138	INSPECTION OF UPPER HARBOR SEDIMENT CAPS, 04/28/2025	05/12/2025	11	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Dickerson, David J (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/688138
689166	AEROVOX BEDROCK GEOLOGY AND MASS FLUX EVALUATION	03/01/2025	15	MTG / Meeting Document	053-REMEDIAL/053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (US ARMY CORPS OF ENGINEERS)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689166
689158	ALTERNATIVES ANALYSIS REPORT FOR THE TEN SEDIMENT CAPS	03/01/2025	85	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689158
689137	FINAL 2024 AEROVOX SEDIMENT CAP PASSIVE SAMPLER SURVEY SUMMARY DATA REPORT	01/01/2025	671	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (BATTELLE)	R01: (JACOBS PROJECT MANAGEMENT CO)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689137

100032731	FINAL 500-YEAR STORM EVALUATION OF NEW BEDFORD HARBOR CAPS	12/11/2024	17	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Rigassio Smith, Anita (JACOBS ENGINEERING GROUP INC), R01: Fallin, Lonnie (JACOBS ENGINEERING)	R01: Cummings, Josh (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING), R01: Burgo, Natalie (US EPA REGION 1), R01: Dickerson, Dave (US EPA REGION 1), R01: Belisle, Lisa (US ARMY CORPS OF ENGINEERS), R01: Donato, Kerwin (US ARMY CORPS ENGINEERS), R01: Esten, Marie (US ARMY CORPS ENGINEERS), R01: Pickering, Tim (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100032731
682153	MEMO REGARDING 10/16/2024 INSPECTION OF UPPER HARBOR SEDIMENT CAPS	10/24/2024	11	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Dickerson, Dave (US EPA REGION 1)	R01: (US EPA REGION 1), R01: (USACENAE)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/682153
100031706	FACT SHEET: ROWING ON ACUSHNET RIVER AND NEW BEDFORD HARBOR	09/01/2024	2	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100031706
689149	PROJECT NOTES, DRAFT FINAL, CRIB CAB AERIAL SURVEY - POST ARMOR LAYER SMOOTHING COMPLETION	07/17/2024	4	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689149
689150	PROJECT NOTES, DRAFT FINAL, PILOT CDF REPAIR SURVEY DATA SUBMITTAL	06/25/2024	21	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689150
689118	INSPECTION OF UPPER HARBOR SEDIMENT CAPS, 05/07/2024	06/13/2024	10	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Dickerson, Dave (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689118
689167	MEMO REGARDING STORMWATER MONITORING - SPRING 2024 QUARTERLY SAMPLING EVENT SUMMARY	05/24/2024	414	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Winchell, Paula (AECOM)	R01: Esten, Marie (US ARMY CORPS OF ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689167
675769	REPORT OF 11/13/2023 INSPECTION OF UPPER HARBOR SEDIMENT CAPS	12/08/2023	14	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Dickerson, Dave (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/675769
689132	QUALITY CONTROL REPORT, AEROVOX SEDIMENT CAP LONG TERM MONITORING, SECOND POST-CAP BATHYMETRIC SURVEY (2023, YEAR 5)	11/02/2023	9	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Cummings, Joshua (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689132
675255	MEMO DOCUMENTING 05/05/2023 INSPECTION OF UPPER HARBOR SEDIMENT CAPS	08/22/2023	11	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Dickerson, Dave (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/675255
100034485	PRELIMINARY DESIGN REPORT - RIVERWALK CONCEPT PLANS	06/01/2023	13	FIG / Figure/Map/ Drawing	053-REMEDIAL/0532-Remedial Design/06.04-REMEDIAL DESIGN REPORTS			UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100034485
686839	NEW BEDFORD RIVERWALK PRELIMINARY DESIGN REPORT	06/01/2023	87	RPT / Report	053-REMEDIAL/0532-Remedial Design/06.04-REMEDIAL DESIGN REPORTS	R01: (BROWN RICHARDSON + ROWE INC)	R01: (NEW BEDFORD (MA) CITY OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/686839
689136	FINAL 2022 AEROVOX SEDIMENT CAP PASSIVE SAMPLER SURVEY SUMMARY DATA REPORT	03/01/2023	415	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (BATTELLE)	R01: (CR ENVIRONMENTAL INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689136
689147	QUALITY CONTROL REPORT, OUTER HARBOR PILOT CAP LONG TERM MONITORING BATHYMETRIC SURVEY (2022)	02/24/2023	6	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689147
689153	QUALITY CONTROL REPORT, UPPER HARBOR SEDINENT CAPS LONG TERM MONITORING, BATHYMETRIC SURVEY (2022, YEAR 3)	01/17/2023	29	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Cummings, Joshua (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689153
689154	FINAL QUALITY CONTROL REPORT, UPPER HARBOR SEDINENT CAPS LONG TERM MONITORING, BATHYMETRIC SURVEY (2023, YEAR 4)	01/01/2023	31	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Cummings, Joshua (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689154
689146	PROJECT NOTES, DRAFT FINAL, OUTER HARBOR PILOT UNDERWATER CAP BATHYMETRIC SURVEY, FALL 2022	12/05/2022	3	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689146
675254	MEMO DOCUMENTING 10/25/2022 INSPECTION OF UPPER HARBOR SEDIMENT CAPS	11/17/2022	13	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Dickerson, Dave (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/675254
689133	QUALITY CONTROL REPORT, AEROVOX INTERIM CAP LONG TERM MONITORING BATHYMETRIC SURVEY (2022, YEAR 4)	09/28/2022	5	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Cummings, Joshua (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689133
659756	MEMO REGARDING 05/17/2022 INSPECTION OF UPPER HARBOR SEDIMENT CAPS [PHOTOGRAPHS ATTACHED]	05/24/2022	12	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Dickerson, David J (US EPA REGION 1)	R01: (SITE FILE)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/659756
657944	MEMO REGARDING VISUAL SHORELINE INSPECTION OF UPPER HARBOR SEDIMENT CAPS, 12/03/2021	02/18/2022	14	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Dickerson, David J (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/657944
689131	QUALITY CONTROL REPORT, AEROVOX CAP LONG TERM MONITORING, SECOND POST-CAP BATHYMETRIC SURVEY (2021)	11/08/2021	6	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Cummings, Joshua (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689131
689152	QUALITY CONTROL REPORT, UPPER HARBOR PERMANENT CAPS LONG TERM MONITORING, 2021 BATHYMETRIC SURVEY	10/22/2021	19	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Cummings, Joshua (JACOBS ENGINEERING), R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689152
655286	MEMORANDUM REGARDING 05/26/2021 AEROVOX INTERIM SEDIMENT CAP INSPECTION	06/15/2021	9	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Dickerson, David J (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/655286

653820	MEMORANDUM REGARDING COMPLETION OF REMEDIAL ACTION (RA) 9, OPERABLE UNIT (OU) 1, UPPER HARBOR SEDIMENT CAPS	05/11/2021	2	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/653820
653811	FINAL UPPER HARBOR SEDIMENT CAPS REMEDIAL ACTION (RA) REPORT NO. 9 FOR OPERABLE UNIT (OU) 1	04/01/2021	38	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (JACOBS)	R01: (US ARMY CORPS OF ENGINEERS), R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/653811
689119	INSPECTION OF UPPER HARBOR SEDIMENT CAPS, 02/26/2021	03/24/2021	9	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Dickerson, David J (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689119
689151	QUALITY CONTROL REPORT, O-711 CAP SAND QC CHANGES - AUGUST 2020	08/01/2020	58	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Taylor, S (JACOBS)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689151
689139	DRAFT FINAL COGGESHALL EAST CAP LOCATION SPECIFIC ADDENDUM	06/01/2020	713	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689139
689140	DRAFT FINAL COGGESHALL WEST CAP LOCATION SPECIFIC ADDENDUM	06/01/2020	512	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689140
689156	DRAFT FINAL UPPER HARBOR SUBAQUEOUS CAP CONSTRUCTION WORK PLAN	06/01/2020	29	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689156
689138	DRAFT FINAL AREA C PILOT CDF CAP LOCATION SPECIFIC ADDENDUM	05/01/2020	323	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689138
689155	DRAFT FINAL UPPER HARBOR PERMANENT CAPS GENERIC DESIGN	05/01/2020	334	RPT / Report	053-REMEDIAL/0532-Remedial Design/06.04-REMEDIAL DESIGN REPORTS	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689155
689142	DRAFT FINAL L-014 CAP LOCATION SPECIFIC ADDENDUM	04/01/2020	309	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689142
689143	DRAFT FINAL L-114 CAP LOCATION SPECIFIC ADDENDUM	04/01/2020	243	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689143
689141	DRAFT FINAL CRIB CAP LOCATION SPECIFIC ADDENDUM	02/01/2020	301	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689141
689144	DRAFT FINAL O-711 CAP LOCATION SPECIFIC ADDENDUM	02/01/2020	134	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689144
689135	FINAL 2019 AEROVOX PASSIVE SAMPLER SURVEY SUMMARY DATA REPORT	01/01/2020	129	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (BATTELLE)	R01: (JACOBS ENGINEERING)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689135
689148	AEROVOX INTERIM CAP POREWATER SAMPLING TRIP SUMMARY	09/30/2019	6	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Curran, Patrick (JACOBS ENGINEERING)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689148
100012480	FINAL AEROVOX INTERIM CAP COMPLETION REPORT	09/01/2019	814	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: Curran, Patrick (JACOBS ENGINEERING)	R01: (US ARMY CORP OF ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100012480
100010852	ADDENDUM TO THE FINAL AEROVOX INTERIM SEDIMENT CAP 100% DESIGN PLAN	09/01/2018	21	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (JACOBS)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100010852
100011851	FINAL PARCEL 265 INTERTIDAL AFTER ACTION REPORT - AUGUST 2018	08/01/2018	31	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (US ARMY CORPS OF ENGINEERS - NEW ENGLAND DISTRICT), R01: (JACOBS)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100011851
100010586	INTERIM SEDIMENT CAP - 100% DESIGN	06/01/2018	819	RPT / Report	053-REMEDIAL/0532-Remedial Design/06.04-REMEDIAL DESIGN REPORTS	R01: (JACOBS)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/1000010586
591570	FACT SHEET - EPA TO INSTALL INTERIM SEDIMENT CAP ALONG AEROVOX SHORELINE IN 2018	03/01/2018	1	RPT / Report	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES			UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/591570
689134	FINAL AEROVOX PASSIVE SAMPLER SURVEY SUMMARY DATA REPORT	12/01/2017	334	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (BATTELLE)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689134
689145	FINAL 2017 OUTER HARBOR PILOT CAP SEDIMENT MONITORING SUMMARY REPORT	06/01/2017	221	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (BATTELLE)	R01: (US ARMY CORPS ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689145
574395	COMMUNITY INVOLVEMENT PLAN (CIP) AND INSTITUTIONAL CONTROL PLAN (ICP) FOR SEAFOOD CONSUMPTION	04/23/2015	48	WP / Work Plan	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.02-COMMUNITY RELATIONS PLANS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/574395
535590	FINAL TECHNICAL MEMORANDUM: OPERABLE UNIT (OU) #3 PILOT CAP SEDIMENT MONITORING - NOVEMBER 2012 SEDIMENT SAMPLING EVENT	05/01/2013	308	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: (WOODS HOLE GROUP INC)	R01: (US CORPS OF ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/535590
512477	FINAL 2011 BATHYMETRIC SURVEY OF PILOT UNDERWATER CAP	06/01/2012	72	RPT / Report	053 - REMEDIAL / 0533 - Remedial Action / 07.05 REMEDIAL ACTION DOCUMENTS	R01: (JACOBS ENGINEERING GROUP INC)	R01: (US ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/512477
507924	US COAST GUARD FINAL RULE FOR PILOT UNDERWATER CAP, FEDERAL REGISTER VOL.76, NO.118	07/20/2011	3	LAWS / Laws/Regulations/Guidance	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS, 056-SITE SUPPORT/0561-Administrative Support/17.07-REFERENCE DOCUMENTS	R01: (FEDERAL REGISTER)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/507924
479436	MEMO REGARDING 2010 OU3 CAP MONITORING	02/11/2011	5	MEMO / Memorandum	053 - REMEDIAL / 0533 - Remedial Action / 07.02 SAMPLING & ANALYSIS DATA (RA)	R01: Walsh, Dave (WOODS HOLE GROUP), R01: Clark, Heidi (WOODS HOLE GROUP)	R01: Anderson, Mark (US ARMY CORPS OF ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/479436
454690	FINAL 2010 BATHYMETRIC SURVEY OF PILOT UNDERWATER CAP	02/01/2011	51	ADD / Analytical Data Document	053 - REMEDIAL / 0533 - Remedial Action / 07.02 SAMPLING & ANALYSIS DATA (RA)	R01: (JACOBS ENGINEERING)	R01: (US ARMY CORPS OF ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/454690
507242	[REDACTED] FINAL 2010 BATHYMETRIC SURVEY OF PILOT UNDERWATER CAP	02/01/2011	51	ADD / Analytical Data Document	053 - REMEDIAL / 0533 - Remedial Action / 07.02 SAMPLING & ANALYSIS DATA (RA)	R01: (JACOBS ENGINEERING)	R01: (US ARMY CORPS OF ENGINEERS)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/507242
507213	[REDACTED] FINAL 2009 BATHYMETRIC SURVEY OF PILOT UNDERWATER CAP	03/01/2010	20	ADD / Analytical Data Document	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: (JACOBS ENGINEERING GROUP INC)	R01: (US ARMY CORPS OF ENGINEERS - NEW ENGLAND DIVISION)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/507213
667884	BROCHURE: WELCOME TO ROWING ON NEW BEDFORD HARBOR	10/01/2008	2	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/667884
275468	MEMO REGARDING BATHYMETRIC SURVEY	10/23/2007	15	MEMO / Memorandum	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: (APEX COMPANIES LLC)	R01: Gaynor, Ken (JACOBS ENGINEERING GROUP INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/275468

272425	TECHNICAL MEMORANDUM - POST-CAP MONITORING UPDATE	08/24/2007	7	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Dickerson, David J (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/272425
237084	CAP THICKNESS: PLACEMENT AREA SURVEY OU3	07/26/2005	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (Apex Environmental)	R01: (US EPA REGION 1 - OFFICE OF SITE REMEDIATION & RESTORATION)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/237084
174890	A GUIDE TO DEVELOPING AND DOCUMENTING COST ESTIMATES DURING THE FEASIBILITY STUDY--OSWER 9355.0-75, EPA 540-R-00-002	07/01/2000	108	LAWS / Laws/Regulations/Guidance	058-PROGRAM SUPPORT/0583-Regulatory Development/B8.4-Directives and Policy Guidance Documents			UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/174890

ATTACHMENT B

RESPONSE TO COMMENTS

Seventh Explanation of Significant Differences for the New Bedford Harbor Superfund Site, New Bedford, Massachusetts

ATTACHMENT B – RESPONSE TO COMMENTS

I. INTRODUCTION

EPA received nine comments from stakeholders on the draft OU1 Seventh Explanation of Significant Differences (ESD7) for the New Bedford Harbor Superfund Site during the public comment period which was held from June 11, 2025 through August 24, 2025. EPA considered all comments received in this response to comments. Comments were received from the following stakeholders:

Massachusetts Department of Environmental Protection (MassDEP)
City of New Bedford Mayor Jonathan F. Mitchell
Hands Across the River Coalition
RemBac Environmental, LLC
An Area Resident
Four anonymous commenters

II. RESPONSE TO COMMENTS ON DRAFT ESD 7

Format

This Response to Comments groups and addresses comments by subject areas and topics, identified in the following sections:

A. Comments in Support of EPA's Proposed Remedy Modification

B. Specific Comments from MassDEP

C. Comments Regarding the Proposed Remedy Modification's Potential Effects on Redevelopment

D. Comments Regarding Other Issues

A. COMMENTS IN SUPPORT OF EPA'S PROPOSED REMEDY MODIFICATION

MassDEP and two anonymous commenters were in favor of EPA's preferred remedy modification, Alternative 1: incorporating the ten sediment caps as permanent elements of the OU1 Remedy, combined with long term monitoring and maintenance, and implementation of institutional controls for the capped areas.

An anonymous commenter noted that the remedy modifications in ESD7, "will help to reduce contamination, environmental impacts and resolve potential water pollution. The citizens of New Bedford will receive many benefits from cleanup efforts and environmental improvements that will have long term effects with this project." Another anonymous commenter noted that,

"The OU1 Remedy for ten permanent caps will improve environmental conditions and reduce potential harmful impacts. The final ESD7 will help the citizens of New Bedford Harbor area to live in an improved environmentally safer county with this planned project."

MassDEP also submitted comments in favor of additional components of draft ESD7, including: changing the proposed PCB cleanup level for the intertidal shoreline area adjacent to the proposed New Bedford River Walk from 50 ppm to 25 ppm due to the expected change from industrial use to recreational land use; EPA's proposal to incorporate additional institutional controls into the OU1 Remedy (with a request for greater details, discussed below); and EPA's proposed TSCA Determination, including support for EPA's determination that cap maintenance activities would have no impact on flooding in the Harbor, that a 500-year storm engineering evaluation demonstrated that the caps would withstand storm events and not release underlying contaminated sediment; and that maintenance of the caps will improve the aquatic environment.

MassDEP also agreed with EPA that Alternative 2 (removal of interim sediment caps and proceeding with dredging and off-Site disposal) would pose increased short-term risks to the environment and the potential to damage any abutting shoreline structures and would result in little or no reduction in long-term risks from the removal of sediment in the capped areas.

MassDEP also agreed with EPA's assessment of Alternative 3 (removal of the sediment caps and performance of bio-augmentation). MassDEP noted that:

> Removal of the caps and performance of in-situ bio-augmentation will cause potential additional short and long-term risks, compared to keeping the caps in place. The breakdown products of the PCBs from bio-augmentation would most likely be more mobile than the PCBs presently in the sediment, resulting in their release into the environment and thus causing the areas to be more toxic in the short and long-term compared to the current caps. Also, the bio-augmentation process involves the use of specific types and amounts of bacteria and other amendments targeted to particular PCB compounds. Given the variability of the PCB congeners and various levels of PCB concentrations under the existing cap areas, there is no certainty that the bio-augmentation process would work properly at all locations. Also, because the caps must be removed for the bio-augmentation process, the other inorganic site contaminants such as heavy metals would not be treated and would be more available to move, causing short and long-term risks. MassDEP's position is that the current interim caps are protective, and Alternative 3 would be less protective, as it may release by-products of the PCB breakdown and will release untreated heavy metals or other untreated organic contamination (i.e. chlorinated solvents at the Aerovox cap area) because of the removal of the caps.

RemBac Environmental, LLC submitted a comment on behalf of itself and additional academic researchers, industry consultants, and manufacturers of in-situ sediment remediation amendments in support of a hybrid remedial approach that maintains the sediment caps from

Alternative 1, with a suggestion that EPA consider implementing an additional protective layer of bioamendments and activated carbon as discussed in EPA's Alternative 3 but placed on top of the existing caps. RemBac's comment will be addressed in greater detail in the "Comments Regarding Other Issues" section below.

EPA RESPONSE:

EPA appreciates the comments in favor of the proposed remedy changes in ESD7 from MassDEP and other stakeholders.

B. SPECIFIC COMMENTS FROM MASSDEP

In addition to the general comments in support of the proposed remedy changes in ESD7, MassDEP had the following specific comments.

1. State's Operation and Maintenance ("O&M") of the Outer Harbor Cap:

MassDEP noted that the area covered by the Outer Harbor Cap is larger than the area identified in the 1998 OU1 Record of Decision as requiring remediation. MassDEP noted its position that the State is only required to perform O&M for portions of the Outer Harbor Cap that are addressing PCB concentrations greater than the selected cleanup level for this location, which is 50 parts per million.

EPA RESPONSE:

EPA updated the final ESD7 to acknowledge that the size of the Outer Harbor Cap is greater than the area designated for remediation in the OU1 ROD. Regarding the specific O&M requirements for monitoring the sediment caps, including the Outer Harbor Cap, upon the issuance of ESD7, EPA will coordinate with MassDEP on updating the Superfund State Contract for the Site, including updating "Appendix D: the O&M Plan".

2. PCB Flux Monitoring:

MassDEP noted that EPA's proposed Determination under the Toxic Substances Control Action ("TSCA") regulations at 40 CFR 761.61(c) included monitoring to ensure that the caps are functioning as designed and that the integrity of the caps is maintained. In ESD7, EPA noted that, "Monitoring shall include, at a minimum, bathymetric surveys, visual inspections at low tide, and, where possible, PCB flux monitoring." MassDEP commented that its position is that only the Aerovox Cap should require PCB flux monitoring because "contamination levels at the other nine caps are low enough that significant contaminant flux is not anticipated."

EPA RESPONSE:

EPA agrees that PCB flux monitoring using PEDs (polyethene devices) should continue at the Aerovox Cap. EPA updated the final ESD7 to require PCB flux monitoring, "where appropriate." EPA acknowledges that certain sediment cap locations, for example locations with larger armor stone, might make PCB flux monitoring difficult. EPA will continue to coordinate with MassDEP in determining the location(s) where PCB flux monitoring should occur.

3. Frequency of Monitoring of Sediment Caps:

MassDEP commented that it wants the State's O&M obligation to perform monitoring of the sediment caps to end after 30 years.

EPA RESPONSE:

Consistent with Section 104(c)(3) of CERCLA, 40 CFR 300.510 (c)(1), and Paragraph K.1 of the Superfund State Contract for the New Bedford Harbor Superfund Site, the State has assured all future maintenance of the remedial action at the Site for the Expected Life of such actions as determined by EPA. Therefore, under CERCLA, there is no 30-year limitation on O&M. Pursuant to Section 121(c) of CERCLA and 40 CFR § 300.430(f)(4)(ii)), EPA must review the remedial action at a Superfund site that results in hazardous substances, pollutants, or contaminants remaining at the site at least every five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. Therefore, for the New Bedford Harbor Superfund Site, permanent OU1 Remedy components that contain Site-related contamination, must be monitored at least every five years, including, but not limited to: the Pilot Confined Disposal Facility; the Lower Harbor Confined Aquatic Disposal Cell; and the ten sediment caps.

Regarding the specific O&M schedule for monitoring the sediment caps, upon the issuance of ESD7, EPA will coordinate with MassDEP on updating the Superfund State Contract for the Site, including updating "Appendix D: the O&M Plan" and the O&M Manual. EPA notes that under the current O&M Plan, EPA and MassDEP have agreed to coordinate on developing mutually agreeable reporting schedules for the O&M of the remedial components of the OU1 Remedy.

Regarding the specific reference to 30 years, this time period is discussed in EPA guidance (EPA 2000) when discussing net present value calculations which often use 30-year timeframes to reflect the value of money over time. When calculating net present value, after 30 years, costs are generally considered as not being significant. Therefore, the reference to 30 years pertains to a process for estimating costs and does not create any limitation on O&M requirements.

4. Institutional Controls:

MassDEP commented in favor of EPA's proposal to incorporate additional institutional controls ("ICs") into the OU1 Remedy via ESD7. MassDEP requested that ESD7 provide additional details

about proposed ICs, such as the forms of ICs and the number of and location of affected parcels, noting that the implementation of ICs can involve significant State resources.

EPA RESPONSE:

EPA appreciates MassDEP's support for ICs at the Site and MassDEP's help in implementing ICs. EPA is currently working on developing a comprehensive Institutional Control Implementation and Assurance Plan ("ICIAP") for the Site, and EPA will continue to coordinate with MassDEP on IC scope and implementation. EPA added a note in the final ESD regarding the development of an ICIAP for the Site and coordination with MassDEP. The existing forms of ICs for the Site include: seafood advisories, signage, and educational campaigns; and coordination and notification through municipal wetland permitting applications. Other forms of ICs available to EPA include potential coordination with the State's Chapter 91 Office to provide EPA notice of proposed State permit applications for work in the intertidal and subtidal zones; deed notices; or other land use controls.

The 1998 OU1 ROD established ICs for the Site including seafood advisories, no fishing signs, and educational campaigns to minimize ingestion of locally-caught PCB-contaminated seafood. These institutional controls remain unchanged by ESD7. In addition, the Massachusetts Department of Public Health established fishing restrictions at the Site. Finally, EPA has already established a process to receive notice of municipal wetland permitting applications to address preventing exposure to PCB-contaminated sediments that exceed UU/UE risk standards from proposed site development along the Harbor. And In July 2011, the U.S. Coast Guard designated the Outer Harbor Pilot Sediment cap area as a Regulated Navigation Area (RNA) at EPA's request following a formal rule making process (76 Fed. Reg. 35742 (June 20, 2011)). This RNA is an IC that restricts persons and vessels from disturbing the sediment cap, which includes, but is not limited to anchoring, dragging, trawling, and spudding within this area.

To clarify, EPA edited the final ESD7 to read, "Additional Institutional Controls measures to prevent human contact exposure risks may be established, if determined to be practicable. ICs may also be required in areas that were inaccessible during the dredging and intertidal excavation period, (*i.e.,* underneath shoreline rip rap), if it is determined that contamination remains in place exceeding the remedy's cleanup standards at a later date." The details for these potential additional ICs will be developed in the ICIAP.

C. COMMENTS REGARDING THE PROPOSED REMEDY MODIFICATION'S POTENTIAL EFFECTS ON REDEVELOPMENT

EPA received two comments raising concerns or asking questions regarding whether the proposed remedy modifications would affect redevelopment, including from the Mayor of the City of New Bedford and from an area resident.

1. Comments from City of New Bedford Mayor Jon Mitchell

City of New Bedford Mayor Jon Mitchell expressed gratitude for EPA's work cleaning up the Acushnet River and for the years of close coordination between EPA and the City during implementation of the Harbor cleanup. However, Mayor Mitchell expressed concern that the sediment caps could impede development and specifically could preclude the construction of boating facilities.

EPA RESPONSE:

EPA agrees that the Agency and the City have spent years closely coordinating during the implementation of the Harbor cleanup. EPA meets monthly with Site stakeholders, including City staff and MassDEP. As discussed during these monthly meetings, the City has notified EPA about the City's various plans to support recreational redevelopment of the Harbor, including the City's proposed Riverwalk and recreational rowing facilities. As EPA noted in ESD7, EPA is changing the cleanup level for intertidal areas along the path of the proposed Riverwalk from 50 ppm PCBs to 25 ppm PCBs so that recreational land uses can move forward. Specifically, regarding rowing facilities, the presence of the caps does not preclude the ability to design waterfront facilities in such a manner as not to conflict with EPA's remedial infrastructure at the Site, including the sediment caps at the former Aerovox Facility and Lot 265. Floating docks and other infrastructure that does not require penetrating sediment caps can be used to provide access to the water over the capped areas. It should be noted that EPA's remedy does not limit the City's ability to rezone any area along the Acushnet River to allow for changes in site use. EPA will continue to coordinate with the City as the Harbor cleanup continues.

EPA recognizes the post-remedial economic and development potential of the New Bedford Harbor Superfund Site, including boating activity in the Upper Harbor and recreational activities along the shoreline, and EPA is committed to work collaboratively with the City of New Bedford, its property owners, and current and future stakeholders to ensure that short-term and long-term redevelopment can occur in a manner that remains consistent with the protectiveness of the Superfund remedy. This collaboration will include:

- Development of Institutional Controls that allow for development and recreation along and on the Acushnet River, including motorized and non-motorized watercraft use. As described above, EPA is currently working on developing a comprehensive ICIAP for the Site, and EPA will continue to coordinate with MassDEP and other stakeholders, including the City of New Bedford, on IC scope and implementation. EPA has already developed ICs in the form of coordination and notification through municipal wetland permitting applications and an RNA to protect the integrity of the Outer Harbor Pilot Cap, and EPA is considering additional potential coordination with the State's Chapter 91 Office to provide EPA notice of proposed State permit applications for work in the intertidal and subtidal zone. EPA is considering establishing additional IC measures to prevent human contact exposure risks, if determined to be practicable. EPA will

continue to coordinate with stakeholders, including evaluating designs for docks or marina structures, so that recreational uses of the Harbor can occur in a manner that remains consistent with the protectiveness of the Superfund remedy. As EPA noted in ESD7:

  - Institutional controls shall be implemented and enforced to ensure the long-term integrity of the caps. These may include, but not be limited to, collaboration with appropriate harbor stakeholders to ensure that future shoreline development projects or navigational dredging does not negatively impact the caps. EPA will also assist these stakeholders in developing and implementing ICs that will protect the integrity and protectiveness of the caps.

  - That if EPA receives notice, through the institutional controls established for the remedy, that future shoreline development may disturb areas of Harbor shoreline that were inaccessible to remedial efforts, EPA will require an assessment of any underlying soil/sediment to determine if the material exceeds remedy cleanup standards and address any such sediments in a manner that will not pose an unreasonable risk of injury to health or the environment.

- EPA's ongoing technical assistance to project applicants on their development of engineering solutions for the design and construction of docking and marina structures along the Acushnet River that are protective of the Superfund remedy. As part of the current Institutional Controls, EPA is receiving notice of proposed waterfront development projects around the Harbor through local wetlands ordinance/bylaw requirements. EPA reviews these notices and determines whether additional communication is needed with the project proponent to insure they understand the potential issues regarding levels of PCB sediment contamination still present within their project site and how to proceed in a manner that will be protective of the Superfund remedy, human health and the environment.

- As EPA completes the cleanup, the Agency will continue to coordinate and cooperate with the City of New Bedford, the Town of Fairhaven, the Town of Acushnet, private developers, and other stakeholders in their efforts to promote economic and recreational growth in and abutting the Site. EPA is aware of the City's interest in remediating and redeveloping formerly industrial upland properties along the Upper Acushnet River. Although upland properties are outside the scope and boundaries of the New Bedford Harbor Superfund Site, should any cleanup extend to or involve intertidal shoreline areas addressed by the OU1 Remedy, EPA will coordinate to ensure that such work is performed in a manner consistent with maintaining the protectiveness of the Superfund remedy.

- EPA is aware that the City of New Bedford, Town of Fairhaven, and the Commonwealth are contemplating replacing the Coggeshall Street Bridge. Should this project move forward, EPA will coordinate with stakeholders to ensure that the bridge project is

performed in a manner consistent with maintaining the protectiveness of the Superfund remedy, including EPA's two sediment caps located next to the bridge.

2. Questions from Area Resident Regarding Redevelopment

a. The commenter asked if the sediment cap abutting the former Aerovox Facility could be disturbed by construction for walkways or docks.

EPA RESPONSE:

The Aerovox Sediment Cap was built to be very robust, and monitoring data indicates that the cap is in good condition, functioning as designed, and unlikely to be disturbed by construction beyond the limits of the cap itself. Although the cap should not be intentionally disturbed or punctured without appropriate review by EPA and MassDEP, walkways or docks could be designed in such a way as not to damage the sediment cap or disturb PCB-impacted sediments. Any party seeking to redevelop the former Aerovox Facility property should coordinate with EPA and MassDEP and with the current owner of the former Aerovox facility property, the City of New Bedford.

b. Is there any health risks to spending time near the shores of these areas north of Coggeshall Street bridge or using any type of water crafts to access and spend time on these water?

EPA RESPONSE:

EPA has conducted ambient air monitoring throughout the Site and none of the air monitoring results collected exceed levels of concern and data continues to support that there is no unacceptable risk posed by PCBs in air from the EPA cleanup activities at the Site.

Regarding other recreational activities, such as boating or swimming, EPA calculated that there is no unacceptable risk associated with exposure to PCBs in the water in the Acushnet River from recreational activities, such as swimming. In the 1998 OU1 ROD, EPA determined that, "Exposure to PCBs and metals while swimming was not found to result in significant human health risk. Note, however, that consideration of adverse health effects from exposure to the raw sewage in combined sewer overflows (CSO) discharges was beyond the scope of this risk assessment and the Superfund remedy. The assessment also concluded that inhalation of airborne PCBs near the Site area is unlikely to result in significant health risk."[10]

In the past, EPA has coordinated with rowing stakeholders in the Harbor to address their exposure concerns. For example, EPA has met with New Bedford Community Rowing and the New Bedford Port Authority to educate rowers about the Site and to assist in the planning of safe races at the Site, and providing staff at the Site during races to oversee and answer

10 OU1 ROD (1998) at page 11.

questions about the Site, as well as removing sheet piles in the Harbor for the sole purpose of facilitating rowing races. In addition, EPA has issued fact sheets regarding rowing at the Site as well as raising awareness about non-Superfund-related bacteria exposure issues from discharges from CSOs into the Harbor. EPA noted, "While bacteria levels spike after heavy rainfall, most days are safe enough to row. The best thing you can do is watch the weather and be mindful of water splashing from oars. In the unlikely event that you should fall in the water, shower as soon as you can and launder your wet clothes separately."[11]

D. COMMENTS REGARDING OTHER ISSUES

Some commenters commented on issues outside of the scope of ESD 7, did not articulate a position on the proposed remedy change, or had specialized comments. The following specific comments were received as noted:

1. Question from Area Resident Regarding the Former Aerovox Site

The former Aerovox Site was treated and capped. Should the public have access or be able to hold activities on this area without damaging the cap and is there any health risk to public health accessing or spending time on a freshly remediated site?

EPA RESPONSE:

The former Aerovox Site is a separate State cleanup site under Massachusetts General Law 21E and is not part of the New Bedford Harbor Superfund Site. Therefore, it is not addressed by ESD 7, except to the extent EPA has capped sediments in the Harbor Site adjacent to the former Aerovox Site. The cap on the property is not considered part of the Superfund remedy. The commentor should contact the City (the owner of the property) and the State concerning public access and use of the property.

2. Comment from Hands Across the River Coalition, Inc. (HARC).

HARC expressed concern about PCBs levels in the Outer Harbor portion of the Site located south of the New Bedford Hurricane Barrier. HARC suggested that it is dangerous to swim in the Outer Harbor due to PCB exposure and that the Massachusetts Department of Public Health should be notified. Furthermore, HARC requested that EPA revise the cleanup level of PCBs in the Outer Harbor to be 1 ppm; however, HARC did not specify if its preferred Outer Harbor PCB cleanup level was for sediment, fish tissue, or in the water column.

11 "Rowing on Acushnet River and New Bedford Harbor" (EPA, September 2024), SEMS Doc ID 100031706; and "Welcome to Rowing on New Bedford Harbor" (EPA, October 2008), SEMS Doc ID 667884;

EPA RESPONSE:

The cleanup of the Outer Harbor portion of the Site is beyond the scope of the proposed remedy modifications in draft OU1 ESD7. This comment is generally more related to OU1 ESD6, which addressed the Outer Harbor portion of the Site in 2017. In ESD6, EPA documented that PCB levels in the Outer Harbor were generally low (approximately 80% of Outer Harbor sample results were below a PCB concentration of 1 ppm) and that the primary source of PCBs to the Outer Harbor was flux from the Upper Harbor and Lower Harbor. Therefore ESD6 concluded that the continued performance of the dredging remedy in OU1 would address the Outer Harbor. For that reason, EPA ended the OU3 designation for the Outer Harbor and included the Outer Harbor in OU1.

Regarding swimming, EPA documented in the 1998 OU1 Record of Decision that, "Exposure to PCBs and metals while swimming was not found to result in significant human health risk. Note, however, that consideration of adverse health effects from exposure to the raw sewage in CSO discharges was beyond the scope of this risk assessment."[12] PCB levels in sediment and the water column are significantly lower in the Outer Harbor.

3. RemBac Environmental, LLC's proposed bio-augmentation and activated carbon layer:

As described above, RemBac Environmental, LLC submitted a comment on behalf of itself and additional academic researchers, industry consultants, and manufacturers of in-situ sediment remediation amendments in support of a hybrid remedial approach that maintains the sediment caps from EPA's proposed Alternative 1, with a suggestion that EPA consider implementing an additional protective layer of bioamendments and activated carbon as discussed in EPA's Alternative 3 but placed on top of the existing caps.

EPA RESPONSE:

EPA appreciates Rembac Environmental's comments. As discussed in ESD7 and the Alternatives Analysis Report, EPA determined that the sediment caps are protective in both the short term and long term in their current form, and therefore additional remedial technologies are not necessary. As EPA noted in the Alternatives Analysis Report, which is part of the Administrative Record for ESD7, eight of the ten sediment caps have a chemical isolation layer using total organic carbon ("TOC"), which serves as a form of treatment by reducing the mobility of dissolved PCBs (due to PCBs' greater affinity to absorb to carbon rather than stay dissolved in water) that could otherwise migrate through the cap and into the water column. Due to the circumstances surrounding the history/construction of the Outer Harbor Pilot cap and the Parcel 265 cap (see section 3 of the Alternatives Analysis Report), these two sediment caps do not have a high-TOC/treatment layer.

12 OU1 Record of Decision (1998) at page 11.

As EPA noted in the Alternatives Analysis Report (see Sections 5.3 and 6), to date, it has not been demonstrated that bio-augmentation would be effective with highly concentrated PCB-contaminated sediments or on the scale required at this Site. As MassDEP noted in its comments on ESD7, "The breakdown products of the PCBs from bio-augmentation would most likely be more mobile than the PCBs presently in the sediment, resulting in their release into the environment and thus causing the areas to be more toxic in the short and long-term compared to the current caps. Also, the bio-augmentation process involves the use of specific types and amounts of bacteria and other amendments targeted to particular PCB compounds. Given the variability of the PCB congeners and various levels of PCB concentrations under the existing cap areas, there is no certainty that the bio-augmentation process would work properly at all locations."

EPA will continue to monitor the protectiveness of the caps but does not anticipate that additional supplements to the cap materials will be required.

4. Billing the fossil fuel industry.

An anonymous commenter suggested that EPA should bill the fossil fuel industry for costs related to the Site and that environmental problems such as at the Site are the result of improper regulation and enforcement.

EPA RESPONSE:

It is EPA policy that the "polluter pays."[13] EPA has spent approximately $1 billion in the performance of the New Bedford Harbor Superfund remedy, including indirect costs. Approximately half of these expenditures have been funded by settlement recoveries from private parties. From 1991 to 1992, the United States and the Commonwealth of Massachusetts entered into three separate consent decrees recovering approximately $100 million from five potentially responsible parties ("PRPs"): (1) AVX Corporation ("AVX"); (2) Belleville Industries, Inc.; (3) Aerovox Incorporated; (4) Cornell-Dubilier Electric Company ("CDE"); and (5) Federal Pacific Electric Company. In 2013, EPA entered into a Supplemental Consent Decree to the previous 1992 Consent Decree with AVX, whose corporate predecessor, Aerovox Corporation, owned and operated the former Aerovox facility and was the primary source of PCB contamination in the harbor. In September 2013, the U.S. District Court approved a $366.25 million cash-out settlement. On May 4, 2023, an additional cash-out settlement with CDE for $4 million became effective, through a reopener in the 1992 settlement with CDE. The settlement with CDE for New Bedford Harbor was part of a simultaneous global $8 million settlement with CDE for both New Bedford Harbor and for the Woodbrook Road Dump Superfund Site in New Jersey. With these settlements and additional federal funding, the harbor cleanup was accelerated substantially during the period between 2014 and 2025.

13 EPA's *Enforcement First for Remedial Action at Superfund Sites* (September 20, 2002), https://www.epa.gov/sites/default/files/documents/enffirst-mem.pdf.

5. Anonymous negative comment.

One anonymous commenter submitted a one-word comment, "Ver6bad."

EPA RESPONSE:

Although the tone suggests a potentially negative view of ESD7, the lack of details articulating the commenters concerns does not allow EPA to issue a substantive response to this comment.

ATTACHMENT C

STATE CONCURRENCE LETTER

Seventh Explanation of Significant Differences for the
New Bedford Harbor Superfund Site, New Bedford, Massachusetts

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
100 Cambridge Street Suite 900 Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

September 30, 2025

Mr. Bryan Olson, Director
Office of Site Remediation and Restoration
U.S. EPA Region I
5 Post Office Square, Suite 100
Boston, MA 02109

Subject: ESD #7 MassDEP Concurrence Letter
Upper and Lower Harbor Operable Unit (OU1)
New Bedford Harbor Superfund Site, MA

Dear Mr. Olson:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the U.S. Environmental Protection Agency's (EPA) Explanation of Significant Differences #7 (ESD #7) which would modify the selected remedy for Operable Unit #1 (OU1) of the New Bedford Harbor Superfund Site in New Bedford, Massachusetts. For the reasons and subject to the considerations stated below, MassDEP concurs with the modifications to the OU1 remedy put forth in ESD #7.

ESD #7 Summary. The ESD #7 describes three modifications to the Upper and Lower Harbor (OU1) remedy:

1. Incorporating the 10 interim sediment caps as permanent elements of the remedy;

2. Changing the polychlorinated biphenyls (PCBs) cleanup level from 50 to 25 parts per million (ppm) for the intertidal shoreline adjacent to the proposed New Bedford River Walk to address the change to recreational land use along the proposed River Walk; and

3. Clarifying that the remedy's Institutional Controls (ICs) requirements to include preventing human contact risk with contaminated sediments in areas throughout the Site where PCB-contaminated sediments have been left in place exceeding unrestricted use/unrestricted exposure (UU/UE) cleanup levels. The institutional controls will limit activities within the intertidal and subtidal zones within certain areas of the Harbor where sediments still pose

limited health risks from human contact. Institutional controls may also be required in areas that were inaccessible during the dredging period (i.e. underneath shoreline rip rap) if it is determined at a later date that contamination remains in place exceeding the remedy's cleanup standards.

Considerations of MassDEP Concurrence. MassDEP concurs with ESD #7, subject to the following considerations:

1. MassDEP and EPA will negotiate an amendment to the NBH State Superfund Contract (SSC) to include the 10 Sediment Cap Areas and other elements of ESD #7 as part of the remedy and to update the O&M Plan, which broadly describes the O&M requirements for the remedy. The updated O&M work requirements will be incorporated into the O&M Manual and provide an O&M Work Plan for the Sediment Cap Areas. The O&M Work Plan is designed to provide MassDEP and its contractor with the specific activities required to perform the necessary O&M work; and
2. MassDEP and EPA will work together in negotiating the Institutional Control Implementation and Assurance Plan ("ICIAP") to incorporate the ESD #7 ICs.

Thank you for your continued partnership on this important project. If you have any questions regarding this letter, please contact Paul Craffey at paul.craffey@mass.gov or (617) 645-8738.

Very truly yours,

Millie Garcia-Serrano

Millie Garcia-Serrano,
Assistant Commissioner

Copy:
e-file: 20250930 ESD 7 MassDEP Concurrence Letter
Matthew Audet, MA Superfund Section Chief, U.S. EPA
Christopher Kelly, U.S. EPA Remedial Project Manager
David Peterson, U.S. EPA
Maximilian Boal, U.S. EPA
Mayor Jonathan F. Mitchell, City of New Bedford
Michele Paul, Director of Environmental Stewardship, City of New Bedford
John Beling, Deputy Commissioner, Policy and Planning, MassDEP, Boston
Paul Craffey, Project Manager, MassDEP, Boston
Diane Baxter, Director Division of Federal Grants, MassDEP BWSC, Boston
Lucas Rogers, Chief Bureau Counsel, MassDEP, OGC, Boston
Andrew Fowler, MassDEP, OGC, Lakeville