



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 1  
5 POST OFFICE SQUARE – SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

**MEMORANDUM**

**DATE:** July 3, 2024

**SUBJ:** Request for a Removal Action at the Bliss Corner Neighborhood Site, Dartmouth, Bristol County, Massachusetts, *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*

**FROM:** Cayla Jimenez, On-Scene Coordinator  
Emergency Response and Removal Section I

**THRU:** Edward J. Bzenas, Manager  
Emergency Response and Removal Section I  
  
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Emergency Planning and Response Branch

**TO:** Bryan Olson, Director  
Superfund and Emergency Management Division

**I. PURPOSE**

The purpose of this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum* is to request and document approval of the second proposed removal action at the Bliss Corner Neighborhood Site in Dartmouth, Massachusetts. The focus of this removal action consists of four residential properties located in an approximate  $\frac{1}{3}$  square mile area generally centered around a wooded wetland south of McCabe Street bordered to the west by Milton Street and to the east by Stackhouse Street within the area of Dartmouth known as Bliss Corner. Hazardous substances, specifically lead and polychlorinated biphenyls (PCBs), present in soil at four residential properties exceed either or both the Massachusetts Department of Environmental Protection (MassDEP) Imminent Hazard (IH) Level and EPA Removal Management Levels (RMLs). If contamination is not addressed by implementing the response actions selected in this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*, lead and PCBs will continue to pose a threat to human health and the environment. There has been no use of the On-Scene Coordinator's \$200,000 warrant authority.

## II. SITE CONDITIONS AND BACKGROUND

**CERCLIS ID#:** MAN000101112  
**SITE ID#:** 01QB  
**CATEGORY:** Time-Critical

### A. Site Description

#### 1. Removal site evaluation

In July 2018, MassDEP responded to an odor complaint at an unoccupied residential lot at 85 McCabe Street in Dartmouth, MA. MassDEP identified buried waste material and subsequently executed soil sampling for PCBs. The owner of the 85 McCabe Street property hired a Licensed Site Professional who provided historical records to MassDEP documenting the location of dump sites in the area likely originating in the 1930s. In October 2018, MassDEP inspected and sampled unoccupied properties located at 20 and 21 Kraseman Street and 31 McCabe Street in Dartmouth, MA. These inspections and sampling results indicated similar contaminants to those identified at the 85 McCabe Street property. Soil at 20 Kraseman Street exceeded the MassDEP IH Level of 10 parts per million (ppm) for PCBs. The IH Level is defined in the Massachusetts Contingency Plan (MCP), 310 C.M.R. §40.0321(2), as a measurement of the concentration of hazardous material "...at the ground surface or within a depth of twelve inches below the ground surface, at any location within 500 feet of a residential dwelling, school, playground, recreation area or park, unless access by children is controlled or prevented by means of bituminous pavement, concrete, fence, or other physical barrier." Hazardous materials listed in the MCP include PCBs.

In May of 2019, MassDEP conducted sampling at 18 locations in Town of Dartmouth rights-of-way in the Bliss Corner Neighborhood in search of evidence of subsurface fill material. Each boring was advanced 10 feet below ground surface (BGS) and included installation of a monitoring well. In 9 of the 18 locations, MassDEP observed a fill layer consisting of coal ash, glass, brick, and coal-clinkers. In a few locations, lead and PCBs exceeded the MassDEP MCP Residential Standard for lead (200 ppm) and MassDEP PCB IH Level (10 ppm).

In September 2019, MassDEP began sampling additional residential properties located within the Bliss Corner Neighborhood. Properties were selected based upon residents' requests for sampling. The resultant analyses indicated a wide range of lead and PCB concentrations in residential soils. Contaminant concentrations at many properties exceeded the MassDEP MCP Residential Standard for lead and MassDEP PCB IH Level. The two properties that exceeded the MassDEP PCB IH Level were an owner-occupied residential property on Kraseman Street and a commercial parcel on Donald Street.

On January 22, 2020, a MassDEP Interoffice Memorandum established a site-specific lead IH Level of 1000 ppm. In October 2020, EPA received a request from MassDEP for assistance in sampling additional residential properties in the Bliss Corner Neighborhood.

In July and September 2020, MassDEP and EPA, with the assistance of the EPA New England Regional Laboratory and EPA contractors, collected and analyzed samples from 37 residential properties in the Bliss Corner Neighborhood.

In June of 2021, MassDEP and EPA sampled nine additional residential properties in proximity to properties where contamination had already been identified. The results of this and all other sampling events are summarized in the Bliss Corner Neighborhood Site File.

In a letter dated August 23, 2021, MassDEP requested support from EPA to conduct removal actions at residential properties in the Bliss Corner Neighborhood where concentrations of lead and/or PCBs in excess of either or both the EPA RMLs and MassDEP IH Levels were measured in surficial soil.

In September 2021, EPA Region 1 signed the *Action Memorandum* for the Bliss Corner Neighborhood Site, which proposed to perform removal actions at five residential properties in the Bliss Corner Neighborhood that exceeded either or both the EPA RML and MassDEP IH Level for lead and PCBs. The initial project cost ceiling was \$1,990,000.

The September 2022 *Action Memorandum Amendment* modified the scope by adding the 85 McCabe Street property used by EPA as a staging area for PCB- and lead-contaminated soil pending off-site disposal; increasing the removal action project ceiling to \$4,150,000; and request an emergency exemption to exceed both the \$2 million and 12-month statutory limitations.

In November 2022, MassDEP and EPA, with the assistance of the EPA New England Regional Laboratory and EPA contractors, collected soil samples at nine additional properties within the Bliss Corner Neighborhood. The analytical results identified one property that exhibited concentrations of PCBs in surface and subsurface soil exceeding both the EPA RML and the MassDEP IH Level. The average concentration of total PCBs at this property was six times the MassDEP Site Specific IH Level.

In April 2023, the Town of Dartmouth granted EPA access to a town-owned former police station property in Dartmouth for use as a staging area for administrative office trailers, equipment storage, and staging contaminated soil prior to disposal. The agreement is valid through May 2025.

The May 2023 *Second Action Memorandum Amendment* modified the scope to address one additional residential property sampled in November 2022 with average PCB soil concentrations exceeding the EPA RML and six times the MassDEP IH Level of 10 ppm for PCBs.

The June 2023 *Third Action Memorandum Amendment* added five additional residential properties, one commercial property, and a right-of-way associated with the commercial property

to the removal action scope and increased the project ceiling by \$4,150,00 to a total project ceiling of \$8,250,000. Four of these properties were sampled during the November 2022 sampling event and exhibited average lead concentrations in excess of the MassDEP Residential Standard for lead. One residential property exhibited soil lead concentrations over the EPA RML and just below the MassDEP IH concentration, while the commercial property and associated right-of-way exhibited PCB concentrations above the EPA RML and MassDEP IH concentrations.

The May 2024 *Fourth Action Memorandum Amendment* requested a funding ceiling increase required to complete excavation at the commercial property and associated right-of-way identified in the *Third Action Memorandum Amendment*; complete restoration at three residential properties, the commercial property, and the associated right-of-way; and fund the transportation and disposal (T&D) of the excavated contaminated soils. The project cost ceiling was increased by \$1,000,000 to a total cost ceiling of \$9,250,000.

Early in 2024, four additional properties were selected by MassDEP and EPA for remediation: MC6, DO3, MC7, and EW4. The average lead concentration measured at MC6 and MC7 was at least three times the EPA RML for lead, and the mean PCB concentrations measured at DO3 and EW4 exceeded the MassDEP residential standard for PCBs. Additionally, the average lead concentration measured at DO3 was more than twice the EPA RML and EW4 is adjacent to a property subject to a prior removal action where the average PCB concentration was measured at more than ten times the MassDEP IH level.

The detailed history contained within the Removal Site Evaluation paragraph in the original *Action Memorandum*, approved September 15, 2021; the *Action Memorandum Amendment*, approved September 15, 2022; the *Second Action Memorandum Amendment* approved May 26, 2023; the *Third Action Memorandum Amendment* approved June 13, 2023; and the *Fourth Action Memorandum Amendment*, approved May 7, 2024, remains consistent with this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*.

## **2. Physical location**

The Site is located in the Bliss Corner Neighborhood of Dartmouth, Bristol County, MA. Dartmouth is located within the geologic coastal lowlands region and the Narragansett/Bristol Lowland ecoregion. This area is characterized by Precambrian metamorphic bedrock comprising mainly alaskite, gneiss, and schist, and a flat topography sometimes transitioning to gently rolling irregular plains that rarely exceed 200' in elevation. Typical vegetative cover in the area includes oak-hickory and oak-pine forests particularly in close proximity to the coast. Otherwise, land cover generally comprises mixed forest with numerous wetlands interspersed with small areas of cropland and pasture. Cranberry bogs in this region are abundant as well, and the various

types of wetlands provide crucial recharge to regional aquifers. Surface water acidity occurs intermittently throughout the region, and surface water alkalinity is variable.<sup>1,2,3,4</sup>

The Bliss Corner Neighborhood is primarily residential and extends approximately  $\frac{1}{3}$  mile from north to south and east to west. A large wetland area spans the south-southwest portion of the Neighborhood. The Neighborhood is located entirely within Dartmouth, but it should be noted that the northeast border of the Neighborhood is Rockdale Avenue, which marks the boundary with the City of New Bedford. The borders of the Bliss Corner Neighborhood are Milton Street to the west, Matthew Street to the north, Stackhouse Street to the east, and a wetland area to the south.

For the purpose of the removal action to be executed under the Bliss Corner Neighborhood Site Removal Response II, the geographic coordinates of 41.614659, -70.944524 indicating a location in the center of the wetlands near the center of the study area will constitute the geographic center of the removal action for internal EPA tracking purposes.

### 3. Site characteristics

Based on information available through EPA's EJSCREEN environmental justice screening tool, the geographic extent of this removal action comprises 13,923 individuals and sensitive receptors, including four schools, one hospital, and Buttonwood Brook. Buttonwood Brook flows into the Apponagansett Bay, which is continuous with the Atlantic Ocean. To calculate these metrics, the EJSCREEN tool evaluates a one-mile radius or 3.14 mi<sup>2</sup> around the removal action's geographic center at 41.614660, -70.944525. The Site exceeds the 80<sup>th</sup> percentile of three of the thirteen state Environmental Justice Indices (specifically Ozone, Superfund Proximity, and RMP Facility Proximity), but does not exceed the 80<sup>th</sup> percentile for any national Environmental Justice Index. Based on information available through the Climate Mapping tool for Resilience and Adaptation, no Climate Hazards exceed a National Risk Index Rating of Relatively Moderate in Bristol County.

As of the date of this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*, cleanups have been completed at 12 residential properties, one commercial

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<sup>1</sup> Denny, C.S. (1982). *Geomorphology of New England*. Geological Survey Professional Paper 1208. <https://pubs.usgs.gov/pp/1208/report.pdf>.

<sup>2</sup> Griffith, G.E., Omernik, J.M., Bryce, S.A., Royte, J., Hoar, W.D., Homer, J.W., Keirstead, D., Metzler, K.J., and Hellyer, G. (2009). Ecoregions of New England [color poster with map, descriptive text, summary tables, and photographs]: Reston, Virginia, U.S. Geological Survey (map scale 1:1,325,000). <https://www.epa.gov/eco-research/ecoregion-download-files-state-region-1>.

<sup>3</sup> Zen, E. (1983). Bedrock Geologic Map of Massachusetts [color map, descriptive text]: Reston, Virginia, U.S. Geological Survey (map scale 1:250,000). [https://ngmdb.usgs.gov/Prodesc/proddesc\\_16357.htm](https://ngmdb.usgs.gov/Prodesc/proddesc_16357.htm).

<sup>4</sup> Windley, B. F. (2023). Proterozoic Eon. In *Encyclopedia Britannica*. <https://www.britannica.com/science/Proterozoic-Eon>.

property, and an associated Town of Dartmouth right-of-way throughout the course of the Bliss Corner Neighborhood Site removal actions that exceed either or both the EPA RML and MassDEP IH Level for lead and PCBs, respectively. In January 2024, EPA determined, based upon relevant Site information, that a removal action is warranted to address PCB and lead concentrations in soils at four additional residential properties where these contaminants pose a significant health risk to human health. This decision is documented in the *Closure Memorandum* signed May 21, 2024. The four properties proposed for a removal action through this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum* exceed either or both the EPA RML and MassDEP IH Level for lead and PCBs. The four properties are identified in Table 1 below using protective names, along with their corresponding average lead and PCB soil concentrations.

Table 1: Mean lead and PCB concentrations measured at four residential properties as compared to EPA RMLs, MassDEP Residential Standards, and MassDEP IH Levels.

Site Indicator	Mean Lead (ppm)	EPA Lead RML (ppm)	MassDEP MCP Lead (ppm)	Mean PCBs (ppm)	EPA PCB RML (ppm)	MassDEP IH PCB (ppm)
MC6	<b>911</b>	200	200	1	23	10
DO3	501	200	200	5	23	10
MC7	<b>721</b>	200	200	ND	23	10
EW4*	85	200	200	4	23	10

\* Despite the comparatively low mean lead and PCB concentrations measured at EW4, the proximity to a highly contaminated property addressed through a prior removal action indicates EW4 warrants additional investigation and removal action.

#### 4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

PCBs and lead are the primary contaminants of concern. The source of the fill material used at each property and depth to which it was used is unknown and varies significantly, resulting in a wide range of PCB and lead concentrations in the soil at each residential property. PCBs and lead are hazardous substances as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601(14), and may find potential exposure routes through common residential activities including gardening, outdoor recreation in lesser vegetated areas, and installation of household assets (i.e., swimming pools, fruit and nut trees, etc.).

#### 5. NPL status

The Site is not currently on the National Priorities List and has not received a Hazardous Ranking System rating.



**EPA**

US EPA R1  
Superfund & Emergency Management Division  
Emergency Planning and Response Branch  
June 27, 2024

# Bliss Corner Neighborhood Site Removal Response II

N

Matthew St  
Lincoln St  
Anawan St  
Sharp St  
Grant St  
McCabe St  
Wordell St  
Carlton St  
Hope St  
Faith St  
Kraseman St  
Fulton St  
Stephen St

Bitterwood Brook  
Bulfinch Brook

MC6  
MC7  
EW4  
D03

MassDEP Study Area Boundary  
Bliss Corner Response Removal II Properties

0 0.05 0.1 0.15 0.2 Miles

Figure 1: Bliss Corner Neighborhood Site Removal Response II study area map.

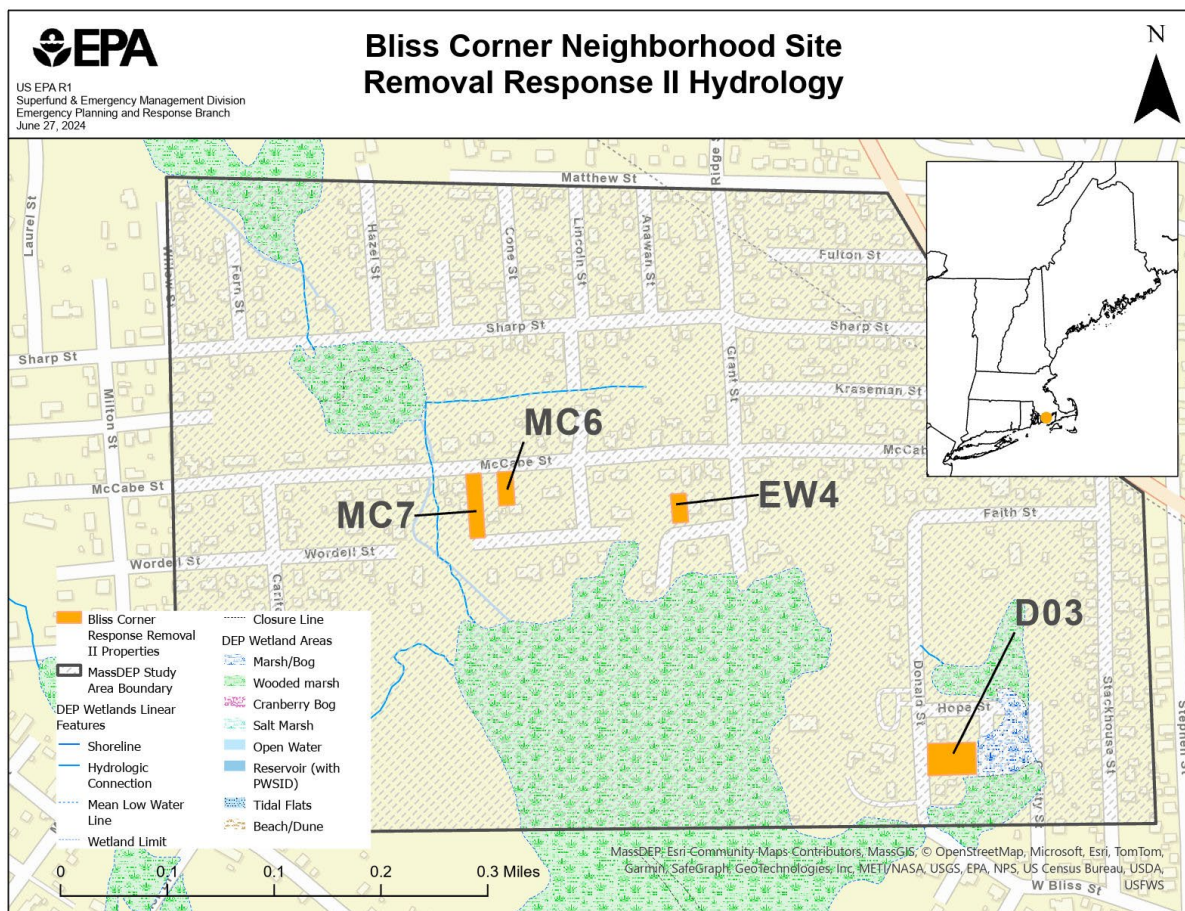


Figure 2: Bliss Corner Neighborhood Site Removal Response II study area hydrology and sensitive environmental receptors.

## B. Other Actions to Date

### 1. Previous actions

Please refer to the Removal site evaluation section of this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*, as well as the following documents associated with the initial *Bliss Corner Neighborhood Site Action Memorandum*, for a detailed description of previous actions: *Bliss Corner Neighborhood Site Action Memorandum* approved September 15, 2021; *Action Memorandum Amendment* approved September 15, 2022; *Second Action Memorandum Amendment* approved May 26, 2023; *Third Action Memorandum Amendment* approved June 13, 2023; and the *Fourth Action Memorandum Amendment* approved May 7, 2024.



EPA and MassDEP continue to identify contaminated properties during the ongoing site investigation. To date, EPA has completed excavation, transportation, and disposal of contaminated soil from twelve residential properties, one commercial property, and a right-of-way for a total of fourteen properties. Contaminated soil has been transported to and disposed of at an EPA-approved disposal facility. Backfilling and restoration have been conducted at these fourteen properties as well. The average lead and PCB concentrations measured in the first three feet of soil at the completed properties fell below the MassDEP Residential Standards for lead (200 ppm) and PCBs (1 ppm). Fill material has been screened by an approved laboratory for any contaminants, and concentrations of any identified contaminants fell within acceptable criteria specified by EPA or MassDEP.

## **2. Current actions**

EPA recently completed the excavation, transportation, and disposal of contaminated soil at a commercial property (DO2) and an associated right-of-way identified in the *Fourth Action Memorandum Amendment*.

## **C. State and Local Authorities' Roles**

### **1. State and local actions to date**

Please refer to the Removal site evaluation section of this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*, as well as the following documents associated with the initial *Bliss Corner Neighborhood Site Action Memorandum*, for a detailed description of MassDEP and Town of Dartmouth actions: *Bliss Corner Neighborhood Site Action Memorandum* approved September 15, 2021; *Action Memorandum Amendment* approved September 15, 2022; *Second Action Memorandum Amendment* approved May 26, 2023; *Third Action Memorandum Amendment* approved June 13, 2023; and the *Fourth Action Memorandum Amendment* approved May 7, 2024.

### **2. Potential for continued State/local response**

EPA has coordinated with MassDEP on all matters related to the Bliss Corner Neighborhood Site and plans to do so throughout the duration of the *Bliss Corner Neighborhood Site Removal Response II* activities. EPA will continue to use the EPA RML for lead (200 ppm) and the MassDEP Residential Standard for total PCBs (1 ppm) as the cleanup targets for the soil excavation on all four Site properties. In coordination with MassDEP, EPA expects to continue to investigate other properties in the area. The Town of Dartmouth and EPA will continue to coordinate on all relevant issues as they arise, and it is expected that the Town will continue to allow the use of its former police station property as a staging area throughout the duration of this removal.

### III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

As described below, the conditions at the Site meet the general criteria for a removal action as set forth in 40 C.F.R. §300.415(b)(1) in that “there is a threat to public health or welfare of the United States or the environment,” and in consideration of the factors set forth in 40 C.F.R. §300.415(b)(2) as described below.

*Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants; [§300.415(b)(2)(i)];*

EPA has completed removal actions at fourteen properties in the Bliss Corner Neighborhood through prior EPA actions and intends to conduct removal actions at four more properties in the Neighborhood through this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*. Soils at these four properties are contaminated with lead and PCBs in excess of the EPA RMLs and/or the MassDEP IH Level. EPA prefers to begin this work in sequence with the conclusion of work performed through the Bliss Corner Neighborhood Site *Fourth Action Memorandum Amendment*. Actual or potential exposure to harmful levels of PCBs and lead will continue if the required funding and resources are not available to implement the proposed actions described in this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*.

*Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];*

The Site is intersected by Buttonwood Brook and a large wetland through which Buttonwood Brook flows. Although no work will be conducted within or in continuity with the wetland or Brook, continued contamination of the soils at these four properties in the Bliss Corner Neighborhood will only serve to further degrade the wetland and brook through runoff of sediment contaminated with lead and PCBs. It is imperative that contaminated soils in the Neighborhood be removed to preserve the integrity of waterways and sensitive ecosystems.

*High levels of hazardous substances or pollutants or contaminants in soils at or largely near the surface, that may migrate [§300.415(b)(2)(iv)];*

EPA and MassDEP confirmed the presence of lead and PCBs in surface soils exceeding both the EPA RML and/or the MassDEP IH Level in some cases and at least one of these thresholds in all cases. Most of the surfaces are fully vegetated, primarily by lawns. However, EPA observed areas with limited to no ground cover where contaminants may have a potential to migrate to adjacent properties or sensitive ecosystems if the required funding and resources are not available to implement the proposed actions described in this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*.

*Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released [§300.415(b)(2)(v)];*

EPA and MassDEP confirmed the presence of lead and PCBs in surface soils in excess of both the EPA RML and MassDEP IH Level in some cases and in excess of at least one of these thresholds in all cases. The potential for migration of contaminated soils to adjacent properties or sensitive ecosystems due to runoff from rainfall or snow melt is very likely to occur if the required funding and resources are not available to implement the proposed actions described in this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*.

*The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)];*

In a letter dated August 23, 2021, MassDEP requested EPA assistance through a targeted removal action to abate, mitigate, or eliminate the risk associated with exposure to elevated levels of lead and PCBs in shallow soils at residential properties within the Bliss Corner Neighborhood. Although MassDEP expended considerable resources in initial sampling and analytical activities in the Neighborhood prior to EPA involvement, MassDEP had limited resources to fully address the contamination within or potentially extending beyond the Bliss Corner Neighborhood without assistance.

#### **IV. ENDANGERMENT DETERMINATION**

If not addressed by completing the response action selected in this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum*, the actual or threatened releases of hazardous substances from this Site may present an imminent and substantial endangerment to public health, welfare, or the environment. In accordance with OSWER Directive 9360.0-34 (August 19, 1993), an endangerment determination is made based upon "appropriate Superfund policy or guidance, or on collaboration with a trained risk assessor," which is outlined and discussed in Section III above. "Appropriate sources include, but are not limited to, relevant action level or clean-up standards, Agency for Toxic Substances and Disease Registry documents or personnel, or staff toxicologists." EPA relied upon the EPA RML for lead in residential soil (200 ppm), MassDEP Residential Standard for PCBs (1 ppm), and meeting of five factors set forth in 40 C.F.R. §300.415(b)(1) to determine risk at the Site as described below.

Four sets of threshold concentrations have played a dominant role in informing (and continue to inform) EPA removal actions in the Bliss Corner Neighborhood: EPA RMLs, MassDEP Residential Standards, MassDEP IH Levels, and site-specific MassDEP IH Levels. Please see the chart below for a concise summary of these threshold concentrations for each of the contaminants of concern (COC) identified at the Bliss Corner Neighborhood Site (i.e., lead and PCBs).

Table 2: Table of four sets of thresholds used to inform the Bliss Corner Neighborhood Site removal.

COC	EPA RML (ppm) <sup>5</sup>	MassDEP Residential Standard (ppm) <sup>6</sup>	MassDEP IH Level (ppm)	MassDEP Site-Specific IH Level (ppm)
Lead	200	200	NA	1000
PCBs	23	1	10	NA

The MassDEP Site-Specific IH Level for lead of 1000 ppm and the EPA RML/MassDEP Residential Standard for lead of 200 ppm were used as threshold concentrations which, when surpassed, moved properties to the priority list for removal action consideration. Properties that exhibited lead concentrations in excess of the MassDEP Site-Specific IH Level were likely to be prioritized over properties whose lead concentrations were in excess of the EPA RML/MassDEP Residential Standard alone, contingent upon other factors such as PCB concentration and depth of measurement. As the most conservative threshold, the EPA RML/MassDEP Residential Standard for lead of 200 ppm was chosen as the cleanup target for properties in the Bliss Corner Neighborhood. The cleanup target is the maximum allowable average concentration of a COC that may be tolerated to remain on a property following a removal action. The average COC concentration on a property may fall below the cleanup target.

The MassDEP IH Level for PCBs of 10 ppm was used as a threshold concentration which, when surpassed, moved properties to the priority list for removal action consideration as well. Properties that exhibited concentrations of both lead and PCBs in excess of the established threshold concentrations were likely to be prioritized over properties where only one of the two COCs exceeded the established threshold concentrations, dependent upon additional factors including severity of contamination and depth of measurement. As the most conservative threshold, the MassDEP Residential Standard for PCBs of 1 ppm was chosen as the cleanup target for properties in the Bliss Corner Neighborhood. Ensuring the average concentration of PCBs on a property following the completion of the removal action measures less than 1 ppm alleviates the necessity for deed restrictions that are otherwise required by the Toxic Substances and Control Act (TSCA).<sup>7</sup>

**PCBs** - The most frequently observed health effects in humans exposed to large amounts of PCBs are skin conditions such as acne and rashes. Studies in exposed workers have shown changes in blood and urine that may indicate liver damage. Some animals that consumed food

<sup>5</sup> U.S. Environmental Protection Agency (2023). *Regional Removal Management Levels (RMLs) for Chemical Contaminants: Tables as of November 2023*. <https://www.epa.gov/risk/regional-removal-management-levels-rmls-chemical-contaminants>.

<sup>6</sup> See 310 C.M.R. §40.0932 and 310 C.M.R. §40.0933 for a discussion of groundwater and soil categories based upon exposure type. See 310 C.M.R. §40.0975 (6)(a): Table 2 for Residential Standards applicable to this Site.

<sup>7</sup> See 40 C.F.R. §761.61(a)(4), (7) and (8).



containing large amounts of PCBs for short periods of time experienced mild liver damage while other animals perished. . The Department of Health and Human Services has concluded that PCBs may reasonably be anticipated to be carcinogens. EPA and the International Agency for Research on Cancer have determined that PCBs are likely carcinogenic to humans.<sup>8</sup>

**Lead** – Lead has negative health effects whether it enters the body through inhalation or ingestion. Lead can affect almost every organ and system within the body. The nervous system is the primary target of lead toxicity, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system and may also cause weakness in fingers, wrists, or ankles. Additionally, lead exposure causes small increases in blood pressure, particularly in middle-aged and older people, and can cause anemia. Exposure to high concentrations of lead can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high exposure to lead may cause miscarriage. Males subjected to a high-level exposure may experience damage to the organs responsible for sperm production.

The Department of Health and Human Services has determined that lead and lead compounds are reasonably anticipated to be human carcinogens, and EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer has determined that inorganic lead is probably carcinogenic to humans and available information is insufficient to determine whether organic lead compounds cause cancer in humans.<sup>9</sup>

## **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

### **A. Proposed Actions**

#### **1. Proposed action description**

The proposed action will address removal of lead and PCB-contaminated soils at four residential properties through full excavations of the MC6, MC7, and DO3 properties and excavation of the front yard of EW4 where the average PCB concentration exceeded the MassDEP residential standard. EPA will excavate soils to a depth of three feet BGS or until average site COC concentrations exist at or below the cleanup targets (previously described in the Site characteristics section of this document) where soil is not protected by a covering, such as asphalt, concrete, permanent structures (i.e., houses, sheds, etc.), or semi-permanent structures (i.e., decks, porches, etc.). The excavated soil will be staged until transportation and disposal is

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<sup>8</sup> Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Polychlorinated Biphenyls (PCBs). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

<sup>9</sup> Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for Lead (Update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

coordinated and completed. EPA will restore the properties to original conditions to the extent practicable.

The removal action may include the following activities:

- Conducting a site walk with environmental remediation contractor to assess layout of each property and determine required equipment, personnel, and utilities;
- Conducting a pre-removal inventory of each property to document existing conditions;
- Developing and implementing a Site-specific Health and Safety Plan;
- Providing Site security if necessary;
- Mobilizing personnel and equipment;
- Delineating work zones and decontamination area;
- Performing air monitoring;
- Maintaining a command post, equipment storage, and clean and contaminated soil staging areas at the 247 Russells Mills Road location;
- Developing a public communication and outreach plan;
- Performing public communication and outreach activities;
- Performing indoor sampling and mitigation;
- Relocating residents during operations if necessary;
- Excavating contaminated soils;
- Performing post-excavation soil confirmation sampling;
- Staging contaminated soil properly and safely;
- Backfilling excavated areas with clean fill;
- Conducting property restoration to the extent practicable;
- Coordinating T&D of contaminated soil and spent personal protective equipment to an EPA-approved disposal facility;
- Repairing response-related damage;
- Returning staging area to original conditions to the extent practicable;
- Demobilizing resources; and
- Returning the Site to MassDEP for post-removal site controls and long-term actions.

EPA may receive and accept a request to perform additional removal actions in the Bliss Corner Neighborhood or remand control of the Site to MassDEP for post-removal site controls and long-term actions.

## **2. Community relations**

EPA will continue to engage with the local community during the removal action through press releases, fact sheets, and public meetings as necessary. The On-Scene Coordinator will receive

assistance from the EPA Community Involvement Coordinator with public relations activities. Due to the nature and complexity of this response, the EPA Community Involvement Coordinator will work with the On-Scene Coordinator to update the Community Involvement Plan and/or Communications Plan as necessary. EPA will work closely with state government, local government and businesses, and the community.

### **3. Contribution to remedial performance**

The actions proposed in this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum* is designed to mitigate the threats to human health and the environment posed by the Site. The actions taken at the Site will be consistent with and will not impede any future responses.

### **4. Description of innovative technologies and sustainable approaches**

In accordance with the Office of Land and Emergency Management Memorandum issued on December 23, 2013, and updated on August 2, 2016, entitled *Consideration of Greener Cleanup Activities in the Superfund Cleanup Process*, as well as the Region 1 Clean and Greener Policy for Contaminated Sites (<https://www.epa.gov/greenercleanups/clean-and-green-policy-contaminated-sites>), greener cleanup practices should be considered for all cleanup projects. Greener cleanup is the act of incorporating practices that minimize the environmental impacts of cleanup actions and maximize environmental and human benefit. Alternative technologies and sustainable approaches will be considered and incorporated, as appropriate, throughout the implementation of the removal action.

Potential sustainable approaches include providing sustainable vegetation options to residents when performing property restoration, including nitrogen-fixing groundcovers (in contrast to conventional turf), vegetation conducive to the development of pollinator habitat, or native vegetation which may contribute to an increase of biodiversity on the property. Other sustainable approaches may include capturing and reusing runoff from staged contaminated soil to rewet the soil during dry, windy months, thus creating a closed cycle and reducing waste, or making recycling containers available at the staging area and work locations.

### **5. Applicable or relevant and appropriate requirements (ARARs)**

Pursuant to 40 C.F.R. 300.415(j), removal actions shall, to the extent practicable and considering the exigencies of the situation, attain ARARs. EPA coordinated with MassDEP to determine the applicable state ARARs for the Site.

## **Federal ARARs**

ARARs include but are not limited to:

Clean Air Act, 40 C.F.R. Part 61; 42 U.S.C. Section 112(b)(1): National Emission Standard for controlling dust. The regulations establish emissions standards for 187 hazardous air pollutants and standards set for dust and release sources. If the removal of contaminated soil generates regulated air pollutants, measures will be implemented to meet these standards.

40 C.F.R. Part 761.61: TSCA requirements for cleanup and disposal of PCBs.

40 C.F.R. 761.61(a): Requirements for off-site disposal of bulk PCB remediation wastes and porous and non-porous PCB remediation waste.

40 C.F.R. 761.65: Requirements for temporary TSCA-regulated waste storage, including design requirements. Proper design considerations will be implemented to ensure that all temporary storage of TSCA-regulated waste satisfies the requirements of the regulations.

40 C.F.R. Section 761.79: TSCA decontamination standards and procedures for removing PCBs, which are regulated for disposal.

Clean Water Act Section 404(b), (40 C.F.R. Parts 230 and 231, 33 C.F.R. Parts 320-323, and 33 C.F.R. Part 332): No activity that adversely affects a wetland shall be permitted if a practicable alternative with lesser impacts is available. Controls discharge of dredged or fill material to protect aquatic ecosystems. Any wetlands altered by the cleanup will be restored as required by regulatory standards.

Clean Water Act Federal Water Quality Criteria, Section 304(a), 40 C.F.R. 131.11: National Recommended Water Quality Criteria for chemicals for both the protection of human health and the protection of aquatic life; to be used as water quality monitoring standards for any work in or adjacent to wetlands or water bodies.

Floodplain Management and Protection of Wetlands, (44 C.F.R. Part 9): Regulations that set forth the policy, procedure and responsibilities to implement and enforce Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands). Prohibits activities that adversely affect a federally regulated wetland unless there is no practicable alternative, and the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. Requires the avoidance of impacts associated with the temporary or permanent occupancy and modification of federally designated 100-year and 500-year floodplain. Waste left in place within a floodplain needs to be protected from flooding so that there is no release of contamination in up to a 500-year flood event.



## **Massachusetts ARARs:**

40 C.F.R. Parts 260-262 and 264 Resource Conservation and Recovery Act, Subtitle C-Hazardous Waste Identification and Listing Regulations; Generator and Handler Requirements, Closure and Post-Closure - Massachusetts has been delegated the authority to administer these RCRA standards through its state hazardous waste management regulations. Generated waste will be tested to determine whether it exceeds hazardous waste thresholds, and, if the hazardous waste thresholds are exceeded, the hazardous waste will be managed on-site until such time as it is shipped to an EPA-approved off-site disposal location.

310 CMR 6.00: Massachusetts Ambient Air Quality Standards set primary and secondary standards for emissions of certain contaminants including particulate matter. Removal activities, including excavation and management of soil, will be implemented in accordance with these rules.

310 CMR 7.00: Massachusetts Air Pollution Control Regulations stipulate that during construction and/or demolition activities, air emissions (i.e., dust, particulates, etc.) must be controlled to prevent air pollution. Construction activities will be managed to meet standards for visible emission (310 CMR Section 7.06) and standards for dust, odor, construction, and demolition (310 CMR Section 7.09). During the removal action, appropriate measures will be taken to comply with these regulations.

The On-Scene Coordinator will coordinate with state officials to identify any additional state ARARs. In accordance with the National Contingency Plan and EPA Guidance Documents, the On-Scene Coordinator will determine the applicability and practicability of complying with each ARAR identified in a timely manner.

## **6. Project schedule**

The removal will begin as soon as possible, expectedly in late July 2024, following the approval of this *Action Memorandum* and the completion of the work described in the *Bliss Corner Neighborhood Site Fourth Action Memorandum Amendment*.

## B. Estimated Costs

COST CATEGORY		CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS Contractor		\$1,500,000.00
Interagency Agreement		\$0,000.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START Contractor		\$300,000.00
Extramural Subtotal		\$0.00
Extramural Contingency	10%	\$190,000.00
<b>TOTAL REMOVAL ACTION CEILING</b>		<b>\$1,990,000.00</b>

## VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Failure to approve this *Bliss Corner Neighborhood Site Removal Response II Action Memorandum* will render individuals residing at the four properties vulnerable to harmful levels of PCBs and lead in surface soil.

## VII. OUTSTANDING POLICY ISSUES

There are no precedent-setting policy issues associated with this Site.

## VIII. ENFORCEMENT ... For Internal Distribution Only

See attached Confidential Enforcement Strategy.

The total EPA costs for this removal action that will be eligible for cost recovery are estimated to be \$1,990,000 (extramural costs) + \$300,000 (EPA intramural costs) = \$2,290,000 X 1.3933 (regional indirect rate) = **\$3,190,657**<sup>10</sup>.

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<sup>10</sup>Direct Costs include direct extramural costs \$1,990,000 and direct intramural costs \$300,000. Indirect costs are calculated by using regional indirect rate in effect at time cost estimate is prepared and is expressed as a percentage of the 39.33% (effective January 11, 2024) x \$2,290,000, consistent with EPA's full cost accounting methodology. These estimates do not include pre-judgment interest; do not take into account other enforcement costs, including Department of Justice costs; and may be adjusted

## IX. RECOMMENDATION

This decision document represents the selected Removal Response II action for the Bliss Corner Neighborhood Site in Dartmouth, Massachusetts, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. The basis for this decision will be documented in the administrative record established for the Site.

Conditions at the Site meet the criteria as per the [§300.415(b)(2)] for a removal action due to the following:

*Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants [§300.415(b)(2)(i)];*

*Actual or potential contamination of drinking water supplies or sensitive ecosystems [§300.415(b)(2)(ii)];*

*High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate [§300.415(b)(2)(iv)];*

*Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released [§300.415(b)(2)(v)];*

*The availability of other appropriate Federal or State response mechanisms to respond to the release [§300.415(b)(2)(vii)];*

I recommend that you approve the proposed removal action. The total extramural removal action project ceiling if approved will be \$1,990,000.

APPROVAL: \_\_\_\_\_

DATE: \_\_\_\_\_

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during the course of a removal action. The estimates are for illustrative purposes only, and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.