



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

**CONTAINS ENFORCEMENT-SENSITIVE INFORMATION**

**MEMORANDUM**

**DATE:** August 28, 2019

**SUBJ:** Request for a Removal Action at the Lavoie Property Site, Berlin, Coos County, New Hampshire, **Action Memorandum**

**FROM:** Thomas Condon, On-Scene Coordinator  
Emergency Response and Removal I Section

**THRU:** Edward J. Bazenias, Chief  
Emergency Response and Removal I Section

Carol Tucker, Chief  
Emergency Planning & Response Branch

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

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval of a proposed removal action at the Lavoie Property Site (the Site), which is located at 640 Hillside Avenue in Berlin, Coos County, New Hampshire. Hazardous substances present in soil at the Site, if not addressed by implementing the response actions selected in this Action Memorandum, will continue to pose a threat to human health and the environment. There are no nationally significant, or precedent-setting issues associated with this Site, and there has been no use of the OSC's \$200,000 warrant authority.

**II. SITE CONDITIONS AND BACKGROUND**

**CERCLIS ID# :** NHN000103093  
**SITE ID# :** 01PP  
**CATEGORY :** Time-Critical

## **A. Site Description**

### **1. Removal site evaluation**

At the request of the New Hampshire Department of Environmental Services (NHDES), EPA's removal program conducted a removal Preliminary Assessment/Site Investigation (PA/SI) on June 17 and 18, 2019, which included collection of surface soil samples (0 to 3 ft. below ground surface) and a review of surface soil sampling data from a Phase II Environmental Site Assessment report prepared by Nobis Group for NHDES, dated March 26, 2019.

Data in the Phase II report indicated the presence of polychlorinated biphenyls (PCBs) and lead in surface soil above levels of concern, at several locations on the Site. EPA's analysis of these samples confirmed the presence of high levels of PCBs and lead in surface soil. The findings of the site investigation were documented in an August 28, 2019 Site Investigation Closure Memorandum with the recommendation that a time critical removal action be conducted.

### **2. Physical location**

The Site is located at 640 Hillside Avenue, Berlin, New Hampshire. The geographic coordinates as measured from the approximate center of the property are 44° 28' 54.6" North latitude, and 71° 10' 35.0" West longitude. The Site consists of three parcels; Lot 127-15 a 1.40-acre residential lot containing an abandoned home, and several shed like structures; Lot 127-14 0.36-acre vacant lot; and Lot 127-13 a 0.5-acre vacant lot. The Site was owned by Robert J. Lavoie who had lived on the property and had operated an unlicensed junkyard until his death in 2011. The Site is bordered to the west and east by Hillside Avenue, and to the north, east and south by residential properties.

### **3. Site characteristics**

The Site contains the remnants of a residential structure, which has been unoccupied since 2011.

Lots 127-15 and 127-14 are generally level, and mostly wooded. The major portion of Lot 127-13 is a clearing in the woods, and slopes towards the east. Access to the entire Site is unrestricted.

According to the Region ArcGIS mapping tool, within one mile of the Site there are:

- 6,466 residents;
- Seven public and private schools; and
- Four day-care centers.

Based on information in EPA's EJSCREEN environmental justice screening tool, none of the 11 Environmental Justice Indexes for the area within a one-mile radius of the Site are at or above the 80th percentile on a national basis.

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

The results of the SI identified the presence of PCBs (Arochlor 1248 and Arochlor 1254), and lead in surface soil at levels exceeding both EPA Removal Management Levels (RMLs) and NHDES Soil Remediation Standards. PCBs and lead are hazardous substances as defined by Section 101(14) of CERCLA, 42 U.S.C. §9601(14) and have been released into the environment.

<b>Contaminant</b>	<b>Maximum concentration (ppm)</b>	<b>RML Industrial (ppm)</b>	<b>RML Residential (ppm)</b>	<b>NH DES Soil Remediation Standard (ppm)</b>
<b>Arochlor 1248</b>	76	95	23	N/A
<b>Arochlor 1254</b>	110	44	3.5	N/A
<b>Total PCBs (high risk)</b>	110	94	23	1
<b>Lead</b>	1,300	800	400	400

**5. NPL status**

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

## **6. Maps, pictures and other graphic representations**

A modified copy of a figure generated for the PA/SI report is attached to show the approximate location and size of the areas proposed for excavation.

### **B. Other Actions to Date**

#### **1. Previous actions**

EPA has taken no previous actions at the Site.

#### **2. Current actions**

Other than the June 2019 SI, EPA is not currently taking any actions at the Site.

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

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

According to a complaint filed with NHDES on February 9, 2004 by the City of Berlin Zoning Office, the Site was operating as an unlicensed junkyard with storage of questionable containers and generally poor housekeeping. Inspection of the Site by NHDES identified the presence of multiple 55-gallon drums and other containers, lead-acid batteries, and various scrap automotive parts and metals. Reportedly, the property owner began his business practice in the late 1950s. With oversight and routine inspections by NHDES, the property owner removed the drums, containers and batteries over the course of several years.

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

Neither the City nor NHDES have resources available to address contamination at the Site at the present time. NHDES has requested assistance from EPA's Removal Program to address the contamination in a letter dated November 1, 2018.

The OSC will coordinate with NHDES and the City of Berlin to ensure that the removal action is consistent with their overall goals for the Site.

## **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)]*

Access to the Site is not restricted, and evidence of trespassing was observed during the Site Investigation. PCB and heavy metal contamination in surficial soils presents a threat to the general public and anyone who may enter the Site. Specifically, PCBs (Arochlor 1248 and Arochlor 1254), and lead were detected in surface soil at levels exceeding both EPA Removal Management Levels (RMLs) and NHDES Soil remediation Standards.

**PCBs** - The most commonly observed health effects in people 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. Animals that ate food containing large amounts of PCBs for short periods of time had mild liver damage and some died. Animals that ate smaller amounts of PCBs in food over several weeks or months developed various kinds of health effects, including anemia; acne-like skin conditions; and liver, stomach and thyroid gland injuries.

Other effects of PCBs in animals include changes in the immune system, behavioral alterations, and impaired reproduction. The Department of Health and Human Services (DHHS) has concluded that PCBs may reasonably be anticipated to be carcinogens. EPA and the International Agency for Research on Cancer (IARC) have determined that PCBs are probably carcinogenic to humans.<sup>1</sup>

**Lead** - The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in the body. The main target for lead toxicity is the nervous system, 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. It 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 lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High level exposure in men can damage the organs responsible for sperm production.

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<sup>1</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

The DHHS 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 IARC has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.<sup>22</sup>

*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)];*

Surface soils are contaminated with high levels of PCBs and Lead. The contaminated soil on Lot 127-13 is on a significant slope and could be prone to migration via erosion. The other two lots are relatively flat, and do not present the same risk of migration though erosion.

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

The City and NHDES currently do not have the available resources to address the situation.

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

Actual or threatened releases of hazardous substances or pollutants or contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, 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 on "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."

In this case, EPA relied on EPA's published RMLs and consulted with EPA's Regional PCB Coordinator for determining risk at the Site.

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

##### **A. Proposed Actions**

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<sup>22</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.

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

The cleanup proposed in this Action Memorandum is designed to mitigate the threats to human health and the environment posed by the Site. The actions taken would be consistent with and will not impede any future responses. EPA is coordinating with the City and NHDES to ensure that the proposed cleanup contributes to the overall cleanup goals for the Site. The Site is not proposed for the NPL.

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

In accordance with the December 23, 2013 memorandum issued by the Assistant Administrator for the Office of Land and Emergency Management as well as the Region 1 Clean and Greener Policy for Contaminated Sites, greener cleanup practices should be considered for all cleanup projects. Greener cleanup is the practice 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. EPA will implement recycling practices including recycling of paper, plastic, metal debris, etc. On-site field screening and analytical techniques may be utilized during the removal action.

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

Pursuant to 40 C.F.R. 300.415(j), removal actions shall, to the extent practicable considering the exigencies of the situation, attain ARARs. EPA has been working in coordination with NHDES to determine the applicable state ARARs for the Site. Current ARARs identified, but not limited to, are listed below:

#### Federal ARARs:

40 CFR Part 761.61(a): requirements for off-site disposal of bulk PCB remediation wastes and porous and non-porous PCB remediation waste – bulk remediation waste will be managed and disposed of off-site in accordance with these standards.

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

Clean Air Act, 40 CFR Part 61; 42 U.S.C. Section 112(b)(1): National Emission Standard for controlling dust. The regulations establish emissions standards for 189 hazardous air pollutants. Standards set for dust and release sources. If the removal of contaminated soils generates regulated air pollutants, then measures will be implemented to meet these standards.

It is anticipated that the removal will proceed as a fund-lead action. The removal action will protect public health, welfare, and the environment from the threats identified in Section III by excavating contaminated soil from portions of the Site, where PCBs (Arochlor 1248 and Arochlor 1254), and/or lead were detected in surface soil at levels exceeding both EPA RMLs and NHDES Soil Remediation Standards. The contaminated soil will be disposed of at an EPA approved off-site facility.

## **1. Proposed action description**

Specific removal activities will include the following:

- Conduct a site walk with the cleanup contractor;
- Conduct additional sampling as needed to assess contaminant disposition and concentration;
- Perform health and safety monitoring;
- Perform public communication and outreach activities;
- Install/repair security and/or health and safety fencing as necessary;
- Provide security guard service as required by the OSC;
- Clear vegetation and debris as needed;
- Improve Site access to facilitate the removal of excavated soil;
- Excavate contaminated surface soils;
- Cap in-place contaminated soils, (if any), which may remain at depth or which cannot otherwise be safely excavated;
- Remove other incidental hazardous substances at the direction of the OSC;
- Perform post-excavation confirmation sampling and analysis;
- Perform dust control and mitigation measures as necessary;
- Backfill excavations;
- Pre-treat hazardous substances, if beneficial, for off-site disposal options;
- Dispose of hazardous substances at EPA-approved off-site disposal facilities;
- Repair response-related damage, if any; and
- If needed, refer the Site to NHDES for any long-term measures that may be required to address remaining Site risks, including post removal site controls.

## **2. Community relations**

EPA will remain involved with the local community throughout the course of the removal action through press releases, fact sheets, and public meetings as necessary. The EPA Community Involvement Coordinator (CIC) plans to disseminate information regarding the project to the impacted residents and businesses. EPA will also work closely with the Town/State officials as the project progresses.



State 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 – New Hampshire has been delegated the authority to administer these RCRA standards through its state hazardous waste management regulations. Waste generated will be tested to determine whether it exceeds hazardous waste thresholds and, if so, the hazardous waste will be managed on-site and until such time as it is shipped to an EPA-approved off-site disposal location.

Soil Remediation Criteria (Env-Or 606.19), Numeric soil remediation standards for organic and inorganic contaminants are established, with a provision for development of risk-based site-specific soil remediation standards. Risks posed by contaminated soils will managed on-site until such time as it is shipped to an EPA-approved off-site disposal location.

The OSC will coordinate with State officials to identify additional State ARARs, if any. In accordance with the National Contingency Plan and EPA Guidance Documents, the OSC will determine the applicability and practicability of complying with each ARAR that is identified in a timely manner.

**6. Project schedule**

Upon approval of the proposed removal action, EPA expects to initiate the time-critical removal action in the fall of 2019 and estimates the removal action will be completed within twelve months.

**B. Estimated Costs**

COST CATEGORY		CEILING
<i>REGIONAL REMOVAL ALLOWANCE COSTS:</i>		
ERRS Contractor		\$1,000,000.00
Interagency Agreement		\$ 0.00
<i>OTHER EXTRAMURAL COSTS NOT FUNDED FROM THE REGIONAL ALLOWANCE:</i>		
START Contractor		\$300,000.00
Extramural Subtotal		\$1,300,000.00
Extramural Contingency	10%	\$130,000.00
<b>TOTAL, REMOVAL ACTION CEILING</b>		<b>\$1,430,000.00</b>

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

Delayed action will increase public health risks due to the potential contact threat posed by the PCBs present in soil at the Site. The absence of the removal action described herein will cause Site conditions to remain unaddressed, and the presence of hazardous substances will continue to pose a threat to human health and the environment.

**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 \$1,430,000 (extramural costs) + \$100,000 (EPA intramural costs) = \$1,530,000 X 1.4957 (regional indirect rate) = \$2,288,421<sup>3</sup>.

**IX. RECOMMENDATION**

This decision document represents the selected removal action for the Lavoie Property Site in Berlin, New Hampshire developed in accordance with CERCLA, as amended, and is not inconsistent with the National Contingency Plan. The basis for this decision will be documented in the administrative record to be established for the Site.

Conditions at the Site meet the NCP Section 300.415 (b) (2) criteria 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 [§300.415(b)(2)(i)];*

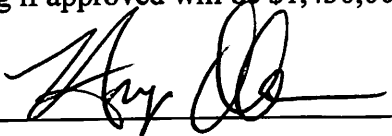
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<sup>3</sup>Direct Costs include direct extramural costs \$1,430,000 and direct intramural costs \$100,000. Indirect costs are calculated by using regional indirect rate in effect at time cost estimate is prepared and is expressed as a percentage of the direct costs 49.57% x \$1,530,000, consistent with EPA's full cost accounting methodology effective October 1, 2018. 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 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.

*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)];*

*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 \$1,430,000.

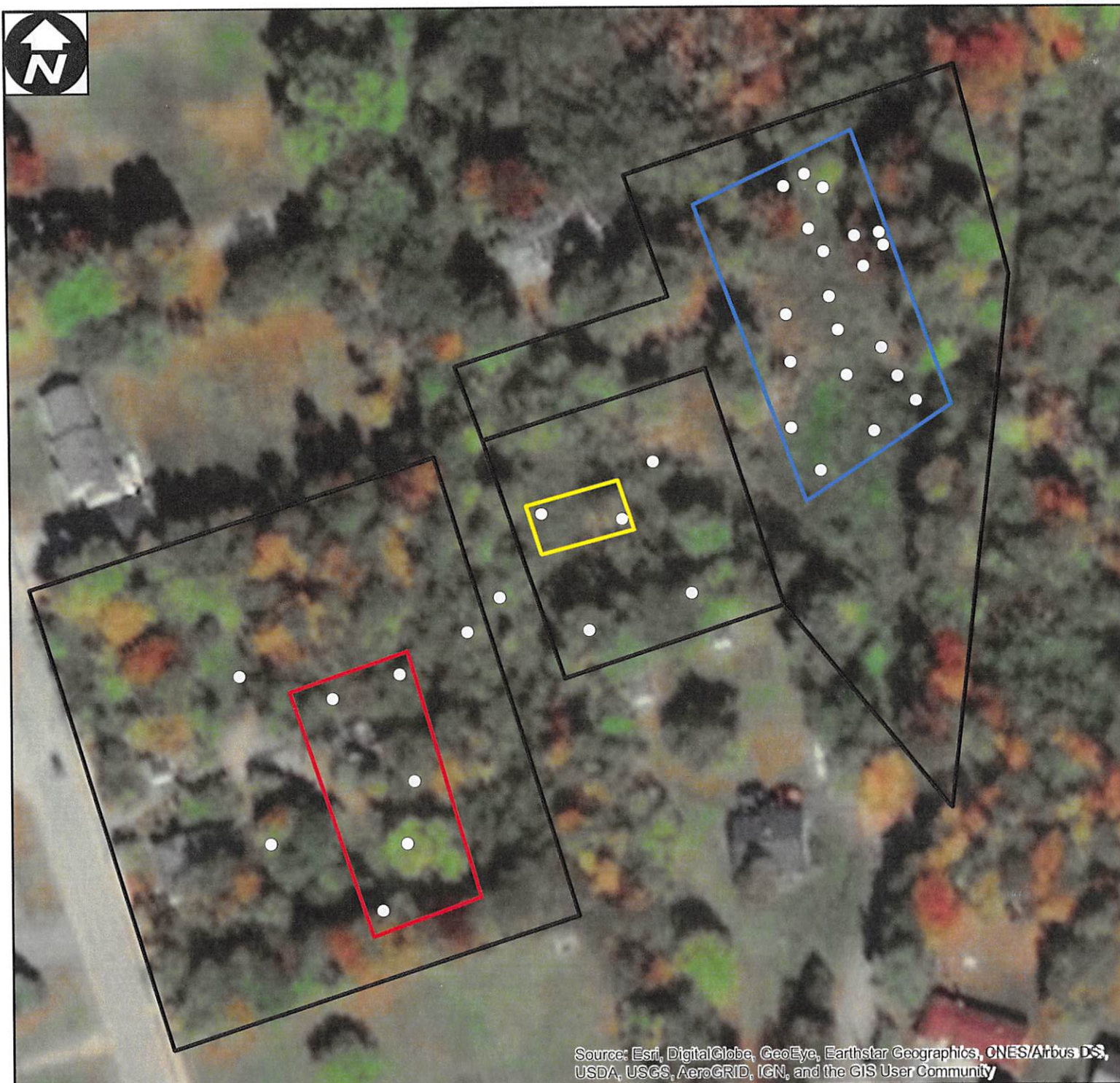
APPROVAL: 

DATE: 8/29/19

DISAPPROVAL: \_\_\_\_\_

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





**Proposed Excavation Areas**  
**2019**

**Lavoie Property Site**  
**640 Hillside Avenue**  
**Berlin, New Hampshire**

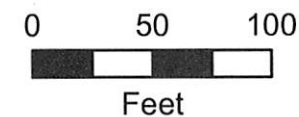
**EPA Region I**  
**Superfund Technical Assessment and**  
**Response Team (START) IV**  
**Contract No. EP-S3-15-01**  
**TDD Number: TO1-01-19-04-0007**

**Created by:** T. Evans  
**Created on:** 19 June 2019  
**Modified by:** B. Mace  
**Modified on:** 26 August 2019

**LEGEND**

- Site Boundary
- Proposed Excavation Areas
- Pb > 400 ppm, PCBs <1 ppm
- PCBs >1 ppm, but < 50 ppm
- PCBs > 50 ppm, Pb > 400 ppm
- Boring Locations

PCB = Polychlorinated biphenyl  
Pb = Lead  
< = Less than  
> = Greater than  
ppm = parts per million



**Data Sources:**

Imagery: ESRI, i-cubed, USDA FSA, USGS  
AEX, GeoEye, Getmapping, Aerogrid, IGP  
Topos: MicroPath  
All other data: START



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS,  
USDA, USGS, AeroGRID, IGN, and the GIS User Community