RECORD OF DECISION

Former Adirondack Steel
Operable Unit Number 03: On-site Drainageway and Adjacent Uplands
State Superfund Project
Colonie, Albany County
Site No. 401039
March 2015

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

Former Adirondack Steel
Operable Unit Number: 03
State Superfund Project
Colonie, Albany County
Site No. 401039
March 2015

Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 03: On-site Drainageway and Adjacent Uplands of the Former Adirondack Steel site, a Class 2 inactive hazardous waste disposal site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 03 of the Former Adirondack Steel site and the public's input to the selected remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;

- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System

A site cover currently exists and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development. The cover system applies to portions of OU-03 where subsurface investigation was not possible due to site conditions consisting of dilapidated, on-site buildings that create a dangerous physical environment. In the locations of the existing building footprints (Metal Building, Block Building, and Forge Shop slab) the existing foundation slab will serve as the cover.

3. Excavation

- Soil, sediment, and fill from the operable unit will be excavated and disposed off-site. Materials exceeding the Toxic Substances Control Act (TSCA) threshold for PCB concentrations of 50 ppm will be disposed or treated at a facility permitted to accept hazardous waste. Soils with PCB concentrations below 50 ppm will be disposed or treated at a facility permitted to accept PCB-contaminated soil.
- All on-site soil which exceed 1 ppm of PCBs in the top foot and 10 ppm of PCBs below the top foot will be excavated and transported off-site for disposal;
- All on-site drainageway sediment which exceed 1 ppm of PCBs will be excavated and transported off-site for disposal.
- Any off-site areas that are excavated will attain 1 ppm of PCBs.
- A demarcation layer will be installed over soils that are residually contaminated above 1 ppm. There will be at least 1 foot of soil that is 1 ppm or less over this demarcation layer.
- Approximately 18,800 cubic yards of material will be removed from the site. Where necessary, material will be treated prior to disposal;
- Non-PCB contaminants are co-located with PCB-contaminated soil and will be remediated by the remedy to address PCBs
- On-site soil which does not exceed applicable SCOs may be used to backfill the excavation to the extent that a sufficient volume of on-site soil is available and establish the designed grades at the site; and
- Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for commercial use will be brought in as needed to replace excavated material and complete the backfilling of the excavation to establish the designed grades at the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be brought in to replace excavated material in off-site areas.
- Abandonment of on-site groundwater monitoring wells.
- Samples of soil from the bottom and sidewalls of excavation areas will be collected and analyzed to ensure remedial goals are achieved. Surface water sampling will be conducted to ensure that removal of the waste has addressed migration of contaminants to surface water.

4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

- o Institutional Controls:
  - The Environmental Easement discussed in Paragraph 4 above
- o Engineering Controls
  - The cover system discussed in paragraph 2.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavation on OU-03;
- o a provision for further characterization to refine the nature and extent of contamination under the existing foundations in the following areas where access was previously hindered:
  - the Power House/North Pattern Storage Building if and when the building is demolished
  - Storage Building 2 (metal building on Figure 5a) if and when the building is demolished
  - the existing concrete pad of the former furnaces and forge shop building if demolished
- o provisions for the management and inspection of the identified engineering controls:
  - maintaining site access controls and Department notification; and
  - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 30, 2015
Date

Robert W. Schick, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

Former Adirondack Steel
Colonie, Albany County
Site No. 401039
March 2015

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of hazardous wastes at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the selected remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Watervliet Public Library
1501 Broadway
Watervliet, NY 12189
Phone: (518) 274-4471

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the selected remedy.

After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the selected remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location:
The site is located in the Town of Colonie, Albany County, NY at 191 Watervliet-Shaker Road at the corner of Lincoln Ave and Watervliet-Shaker Road. It is the location of an abandoned steel mill called the "Adirondack Steel Casting Co. Inc." The site is located within a mile of five other sites in a New York State remedial program. It is approximately 0.5 miles to the north of "AL Tech Steel" and 0.25 miles to the west of "Perfection Plating" and the "Watervliet Arsenal Siberia Area"; all current or former Class 2 Inactive Hazardous Waste Disposal Sites; 0.75 miles to the northwest of an Environmental Restoration Project site, "Schuyler Heights Fire District"; and is adjacent to a Class 3 site, "Passonno Corp. Roof Coating Facility," situated immediately to the west.

Site Features:
The site currently occupies 4.2 acres of the 38.5 acre former industrial property. The property contains eight dilapidated unoccupied buildings, (two of which are located on the Class 2 site), foundation slabs of the original production buildings, deteriorating access roads and emerging tree growth. There are also drainageways bordering the east side of the property as well as to the north of the former main production area. The drainageway to the east (OU-02) is largely stagnant and is located between the site and an active rail line owned and operated by Canadian Pacific. The drainageway to the north of the former production area (OU-03) flows to the east between the site and an industrial landfill. The landfill (not a part of the Class 2 site or the subject of this remedy) is comprised largely of foundry sands originating from past operations of the steel plant.

Current Zoning/Use(s):
The area surrounding the property is mixed industrial-residential use. The property borders on undeveloped land to the west and an active rail line to the east. The site itself is zoned "Industrial" and has been recently acquired by a private party who is actively developing the property surrounding OU-03 into an industrial park. A composting facility has been constructed on the off-

site, western portion of the property not impacted by PCBs.

Past Use of Site:
Adirondack Steel Casting Co. produced steel castings for various industrial customers. The Site contained transformers associated with the steel mill that were the source of the known PCB contamination. A variety of tenants also occupied the property while it was known as the Adirondack Industrial Park after the steel mill was shuttered. Those occupants included asphalt paving companies, auto body shops, and an aluminum smelter.

There are three likely scenarios for the PCBs to have reached the soils at the site; routine maintenance, poor handling of used fluids, and/or unauthorized scavenging. The electrical components generally required little maintenance but could become damaged or require service that would provide the opportunity for the fluids to leak from the components to the ground. Poor handling or on-site dumping of spent fluids may have contributed to the releases and subsequent contamination. These two scenarios may have taken place any time after the installation of the power stations, likely in the 1960's. Finally, the abandonment and poor security of the plant also led to the opportunity for unauthorized scavenging of the equipment for the copper contained in the transformers. Reportedly, the fluid would be drained from the transformers directly to the ground during scavenging. The scavenging took place at various times during the 1980's and 90's.

The USEPA responded to the spilled PCBs and soil contamination in 1993 by excavating soil and storing it in a secured building at the property. Due to a lack of cooperation by the then owner, this stored soil was unable to be removed and disposed of until 1999. Significant PCB soil contamination remained.

Operable Units:
The site has been divided into two on-site operable units Operable Unit 1 (OU-01) and OU-03. There is a third OU, OU-02 that is off-site. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

OU-01: The soil in the vicinity of the North Power Station and the South Power Station where electrical equipment containing fluid with PCBs and volatile organic compounds (VOCs) was maintained or damaged resulting in releases of the fluid to the ground surface. These releases resulted in contamination of the soil in three locations totaling less than 0.5 acres over a portion of the Adirondack Steel Property. OU-1 remedial work has been completed and a No Further Action Record of Decision was signed on March 31, 2010.

OU-02: The off-site drainageways to the east of the Adirondack Steel property extend north of the former Adirondack Steel Property. Sediment and soil along the banks of the drainageways are contaminated with PCBs originally released from OU-01. Extensive investigation into the full extent of the contamination in these drainageways has been performed and this OU will be the subject of a future Record of Decision.

OU-03: This OU is comprised of portions of the property that contain PCB contaminated soil not included in OU-01 as well as the on-site drainageway. OU-03 is the subject of this document.

Site Geology:
Non-native soils and fill comprise a large area of the site and the property. The underlying native soil is primarily composed of grey and brown clays with some fine sand. Thickness of the overburden varies across the entire property from 28 feet to less than 1 foot. Bedrock at the site is Snakehill Shale and as such, it is typically grey or black and is highly fractured with a high density of folding and faults.

Two groundwater bearing zones were investigated. The overburden groundwater is shallow, generally within 5 feet of the ground surface. Bedrock groundwater is also shallow, within five feet below ground surface (bgs) down to 17 feet bgs. Flow direction for each bearing zone is to the east-northeast. Groundwater elevations appear to indicate that the groundwater in the bedrock flow regime is confined as the elevations are often above the top of bedrock. This is borne out through hydraulic testing which indicated a vertical gradient with groundwater flowing from bedrock to overburden in the western wells. Wells on the east of the study area indicated groundwater flowing from overburden to bedrock at slow rates.

A site location map is attached as Figure 1 and site operable units are shown in Figure 2.

Operable Unit (OU) Number 03 is the subject of this document.

A Record of Decision was issued previously for OU 01. A Record of Decision will be issued for OU 02 in the future.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the RI to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Timmons Corporation

Melrose Group

The PRPs for the site declined to implement a remedial program when requested by the Department. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred.

Melrose Group LLC purchased the Site 2013. Melrose Group LLC will receive a release of liability following its filing of an Environmental Easement containing institutional controls.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- surface water
- soil
- sediment

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

POLYCHLORINATED BIPHENYLS (PCB)
DIELDRIN
BENZO(A)PYRENE
CADMIUM

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- Soil
- Sediment
- Surface Water

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

There were no IRMs performed at this site during the RI associated with this operable unit.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 03.

Prior to Completion of Remediation:

Nature and Extent of Contamination:
Soil, groundwater, sediments and surface water were analyzed for VOCs, semi-volatile organic compounds (SVOCs), PCBs, pesticides, and metals. Based on investigations conducted to date, the primary contaminants of concern at the site are PCBs. PCBs have migrated off-site to OU-02.

PCB-contaminated soil and sediment in OU-03 contain PCB concentrations greater than 1000 ppm. This concentration greatly exceeds all soil cleanup objectives (SCOs). Contamination is known to exist throughout the soil column at depths up to 8 ft below ground surface.

There are SVOCs, such as benzo(a)pyrene present at the site at concentrations that marginally exceed applicable soil cleanup objectives (1.6 ppm vs. 1.0 ppm) for the site.

One significant exceedance of a pesticide SCO (20 ppm vs. 1.4 ppm for dieldrin) was detected in one location on OU-03.

Inorganics are present at the site, largely found at levels below applicable soil cleanup objectives for the site with a few soil samples exceeding SCOs for cadmium.

No significant detections of VOCs were found during the investigations.

Groundwater is not impacted by site-related contaminants while on-site surface water and sediment in the drainageways exhibited exceedances for PCBs.

For portions of the site where dilapidated buildings are present, subsurface investigations were not completed due to potential physical hazards and access issues. These areas specifically include the Power House (Block Building, Figure 5a) and Forge Shop foundation slab (adjacent to Block Building, Figure 5a).

The site presents a significant environmental threat due to the ongoing releases of contaminants from upland and sediment source areas into surface water and off site sediment.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Contact with contaminated soil on-site is not expected within Operable Unit 1 because that portion of the site has been remediated to meet soil cleanup objectives for commercial and industrial use.

There is a potential for contact with contaminants in soil, surface water, and sediment on-site within Operable Unit 3 and off-site within Operable Unit 2.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Surface Water

RAOs for Public Health Protection

- Prevent ingestion of water impacted by contaminants.

RAOs for Environmental Protection

- Restore surface water to ambient water quality criteria for the contaminant of concern.
- Prevent impacts to biota from ingestion/direct contact with surface water causing toxicity and impacts from bioaccumulation through the marine or aquatic food chain.

Sediment

RAOs for Public Health Protection

- Prevent direct contact with contaminated sediments.

RAOs for Environmental Protection

- Prevent releases of contaminant(s) from sediments that would result in surface water levels in excess of (ambient water quality criteria).
- Prevent impacts to biota from ingestion/direct contact with sediments causing toxicity or impacts from bioaccumulation through the marine or aquatic food chain.
- Restore sediments to pre-release/background conditions to the extent feasible.

SECTION 7: SUMMARY OF THE SELECTED REMEDY

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study (FS) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's remedy is set forth at Exhibit D.

The selected remedy is referred to as the Excavation and Off-Site Disposal for Commercial Use remedy.

The estimated present worth cost to implement the remedy is $6,104,000. The cost to construct the remedy is estimated to be $6,021,000 and the estimated average annual cost is $6,000.

The elements of the selected remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and

- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System

A site cover currently exists and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development. The cover system applies to portions of OU-03 where subsurface investigation was not possible due to site conditions consisting of dilapidated, on-site buildings that create a dangerous physical environment. In the locations of the existing building footprints (Metal Building, Block Building, and Forge Shop slab) the existing foundation slab will serve as the cover.

3. Excavation

- Soil, sediment, and fill from the operable unit will be excavated and disposed off-site. Materials exceeding the Toxic Substances Control Act (TSCA) threshold for PCB concentrations of 50 ppm will be disposed or treated at a facility permitted to accept hazardous waste. Soils with PCB concentrations below 50 ppm will be disposed or treated at a facility permitted to accept PCB-contaminated soil.
- All on-site soil which exceed 1 ppm of PCBs in the top foot and 10 ppm of PCBs below the top foot will be excavated and transported off-site for disposal;
- All on-site drainageway sediment which exceed 1 ppm of PCBs will be excavated and transported off-site for disposal.
- Any off-site areas that are excavated will attain 1 ppm of PCBs.
- A demarcation layer will be installed over soils that are residually contaminated above 1 ppm. There will be at least 1 foot of soil that is 1 ppm or less over this demarcation layer.
- Approximately 18,800 cubic yards of material will be removed from the site. Where necessary, material will be treated prior to disposal;
- Non-PCB contaminants are co-located with PCB-contaminated soil and will be remediated by the remedy to address PCBs
- On-site soil which does not exceed applicable SCOs may be used to backfill the excavation to the extent that a sufficient volume of on-site soil is available and establish the designed grades at the site; and
- Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for commercial use will be brought in as needed to replace excavated material and complete the backfilling of the excavation to establish the designed grades at the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be brought in to replace excavated material in off-site areas.
- Abandonment of on-site groundwater monitoring wells.
- Samples of soil from the bottom and sidewalls of excavation areas will be collected and analyzed to ensure remedial goals are achieved. Surface water sampling will be conducted to ensure that removal of the waste has addressed migration of contaminants to surface water.

4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

- o Institutional Controls:
  - The Environmental Easement discussed in Paragraph 4 above
- o Engineering Controls
  - The cover system discussed in paragraph 2.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavation on OU-03;
- o a provision for further characterization to refine the nature and extent of contamination under the existing foundations in the following areas where access was previously hindered:
  - the Power House/North Pattern Storage Building if and when the building is demolished
  - Storage Building 2 (metal building on Figure 5a) if and when the building is demolished
  - the existing concrete pad of the former furnaces and forge shop building if demolished
- o provisions for the management and inspection of the identified engineering controls:
  - maintaining site access controls and Department notification; and
  - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting soil, surface water and, sediment.

Wastes are defined in 6 NYCRR Part 375-1.2 (aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375 (au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium.

Hazardous waste levels of polychlorinated biphenyls (PCBs) representing source areas were identified in soil and sediment at the northern boundary of the site. These source areas are indicated on Figure 3 as areas of contamination that exceed the Toxic Substances Control Act (TSCA) threshold of 50 parts per million (ppm) of PCB contamination in soil. High levels of PCBs can mobilize and adversely affect other media such as surface water.

In addition to hazardous waste, significant quantities of solid waste are present at the site. The solid waste includes tires and demolition debris. A large pile of recyclable material had been dumped at the site prior to demolition of the main foundry building. The recyclables were removed from the site during the RI to facilitate sample collection.

The waste/source areas identified will be addressed in the remedy selection process.

Groundwater

Groundwater was investigated at the site through the installation and sampling of five pairs of monitoring wells on the Former Adirondack Steel property along with the installation of a temporary monitoring well during remediation of OU-01. One well from each pair was installed in the overburden or overburden/bedrock interface and one well from each pair was installed in the bedrock. This configuration allowed monitoring of both flow regimes at the property. Two rounds of sampling were performed to collect groundwater samples from the paired wells for analysis and one round of sampling was conducted at the temporary well. No VOCs, SVOCs, pesticides

or PCBs of concern were found during any of the monitoring events. Metals were found above groundwater SCGs in all groundwater samples other than the temporary well where analysis for metals was not performed. The most frequently occurring metals were iron and sodium which were found in nearly all samples. Other metals that frequently exceeded SCGs included: barium, magnesium and manganese. Thallium and antimony occasionally (4 and 3 times, respectively) exceeded SCGs. Arsenic, lead, and nickel each slightly exceeded SCGs once over the two rounds. A summary of the groundwater data is included in Figure 4.

Table #1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
Metals NYS CLASS GA			
Arsenic	0-30.1	25	1/11
Barium	29.0-8,720	1000	3/11
Beryllium	0-3.00	3	1/11
Cadmium	0-1.90	5	0/11
Chromium, Total	0-68.6	50	1/11
Copper	0-112	200	0/11
Iron	185-99,300	300	9/11
Lead	0-64.1	25	1/11
Magnesium	3,300-157,000	35000	6/11
Manganese	118-2,830	300	7/11
Nickel	0-105	100	1/11
Selenium	0-7.60	10	0/11
Silver	0-7.80	50	0/11
Sodium	43,800-735,000	20000	11/11
Thallium	0-13.9	0.5	1/11
Zinc	25.4-273	2000	0/11
SVOC NYS CLASS GA			
Bis(2-Ethylhexyl) Phthalate	0-3.80	5	0/22

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

No site-related groundwater contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for groundwater.

Soil

Surface and subsurface soil samples were collected at the site. Surface soil includes only the top layer of soil and included soil as deep as 6 inches below ground surface (bgs) due to the variability of surface materials in sampling locations. It is necessary to collect soil from below the vegetative root zone or underneath gravel on the surface for accurate analysis of the soil matrix. 48 surface soil samples were collected on OU-03 that were analyzed for a variety of potential contaminants including VOCs, SVOCs, metals, pesticides and PCBs. Additional surface

soil samples were collected from other portions of the Adirondack Steel property under the OU-01 remedial investigation to assess background conditions and determine whether hazardous substances were present at additional locations on the property. Those results are discussed in the Former Adirondack Steel Record of Decision for OU-01.

PCBs are the primary contaminant of concern at the site. Because PCBs were known to be present prior to various phases of the investigation, 26 surface soil sample locations were selected to be analyzed only for PCBs to delineate the areal extent of the PCB contamination. Up to 23 sample locations were analyzed for either VOCs, SVOCs, metals, pesticides or PCBs. PCBs are present in the majority of samples at concentrations up to 530 ppm while other categories of contaminants were detected sporadically above industrial SCOs. Of note is one location with a high concentration of dieldrin. This location overlies the area of PCB contamination.

Portions of the site where dilapidated buildings are present, subsurface investigations were not completed due to potential physical hazards and access issues. These areas specifically include the Power House (Block Building, Figure 5a) and Forge Shop foundation slab (adjacent to Block Building, Figure 5a).

Table # 2a - Surface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted Use SCG (ppm)[b]	Frequency Exceeding Unrestricted Use SCG	Restricted Use SCG (ppm) (Industrial)[c]	Frequency Exceeding Restricted Use SCG
Metals PART 375					
Arsenic	0-9.90	13	0/22	16	0/22
Barium	30.0-530	350	6/22	10000	0/22
Beryllium	0-0.920	7.2	0/22	2700	0/22
Cadmium	0.370-39.7	2.5	7/22	60	0/22
Chromium, Total	11.0-160	30	12/22	800	0/22
Copper	18.0-120	50	18/22	10000	0/22
Lead	8.90-340	63	10/22	3900	0/22
Manganese	290-1,400	1600	0/22	10000	0/22
Mercury	0-0.320	0.18	2/22	5.7	0/22
Nickel	13.0-130	30	19/22	10000	0/22
Silver	0-1.30	2	0/22	6800	0/22
Zinc	23.0-1,400	109	13/22	10000	0/22
Pesticides/PCBs PART 375					
Dieldrin	0-20.0	0.005	4/19	2.8	1/19
4,4-DDT	0-18.0	0.0033	4/19	94	0/19
PCB-1016 (Aroclor 1016)	0-0.587	0.1	1/26	25	0/26
PCB-1248 (Aroclor 1248)	0-19.0	0.1	1/26	25	0/26
PCB-1254 (Aroclor 1254)	0-7.60	0.1	6/26	25	0/26
PCB-1260 (Aroclor 1260)	0-530	0.1	22/26	25	2/26
Total PCBs	0-530	0.1	25/26	25	3/26
SVOC PART 375					

Anthracene	0-0.420	100	0/23	1000	0/23
Benzo(A)Anthracene	0-1.50	1	2/23	11	0/23
Benzo(A)Pyrene	0-1.30	1	2/23	1.1	4/23
Benzo(B)Fluoranthene	0-2.10	1	4/23	11	0/23
Benzo(G,H,I)Perylene	0-0.860	100	0/23	1000	0/23
Benzo(K)Fluoranthene	0-0.750	0.8	0/23	110	0/23
Chrysene	0-1.60	1	2/23	110	0/23
Dibenz(A,H)Anthracene	0-0.230	0.33	0/23	1.1	0/23
Fluoranthene	0-2.60	100	0/23	1000	0/23
Indeno(1,2,3-C,D)Pyrene	0-0.910	0.5	4/23	11	0/23
Phenanthrene	0-2.00	100	0/23	1000	0/23
Pyrene	0-2.30	100	0/23	1000	0/23
VOC PART 375					
Acetone	0-0.410	0.05	7/19	1000	0/19
Benzene	0-0.00130	0.06	0/19	89	0/19
Toluene	0-0.00620	0.7	0/19	1000	0/19

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Industrial Use, unless otherwise noted.

A large number of subsurface soil samples were collected during the investigation of OU-03 with the majority of samples being analyzed for PCBs only. Over 400 subsurface soil samples were collected and analyzed to delineate the vertical and aerial extent of subsurface PCB contamination. 34 samples were collected to document the nature and extent of non-PCB contaminants including VOCs, SVOCs, metals, and pesticides. A summary of the findings is presented in Tables 2a and 2b.

PCBs are found at high concentrations (up to 2,400 ppm) on the far northern boundary of OU-03 in the subsurface. They are known to be present at depths up to eight feet bgs and in two locations are likely to be present below that depth due to detections in the bottom sample interval. PCB concentrations exceed hazardous waste thresholds over an area approximately 0.2 acres in this region. PCBs above applicable SCOs are present in one sample location on the south end of OU-03, adjacent to a portion of OU-01. Figure 5a indicates locations and depths where PCB SCOs are exceeded.

Two pesticides, 4-4- DDT and dieldrin, are also present in the area where high PCB concentrations are found while there are two areas of SVOCs that are present above the industrial SCOs; one in the north end and one in the south end of the OU. Both areas are located in PCB-contaminated zones.

Cadmium is present at concentrations exceeding the applicable SCOs and is also located in portions of the site that contain PCB-contaminated soil.

Non-PCB contaminants are shown on figure 5b.

Table # 2b - Subsurface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted Use SCG (ppm)[b]	Frequency Exceeding Unrestricted Use SCG	Restricted Use SCG (ppm) (Industrial)[c]	Frequency Exceeding Restricted Use SCG
Metals PART 375					
Arsenic	0-4.90	13	0/34	16	0/34
Barium	16.0-340	350	0/34	10000	0/34
Beryllium	0-0.970	7.2	0/34	2700	0/34
Cadmium	0-100	2.5	5/34	60	1/34
Chromium, Total	5.70-230	30	15/34	800	0/34
Copper	10.0-170	50	20/34	10000	0/34
Lead	7.90-340	63	11/34	3900	0/34
Manganese	230-1,500	1600	0/34	10000	0/34
Mercury	0-0.340	0.18	2/34	5.7	0/34
Nickel	4.60-170	30	22/34	10000	0/34
Silver	0-0.740	2	0/34	6800	0/34
Zinc	11.0-670	109	9/34	10000	0/34
Pesticides/PCBs PART 375					
Dieldrin	0-1.50	0.005	9/34	2.8	0/34
Endrin	0-0.0140	0.014	1/34	410	0/34
4,4DDT	0-0.610	0.0033	11/34	94	0/34
PCBs (Total)	0-2400	0.1	214/437	25	41/437
SVOC PART 375					
2-Methylphenol (O-Cresol)	0-0.650	0.33	1/34	1000	0/34
Acenaphthene	0-1.10	20	0/34	1000	0/34
Anthracene	0-1.50	100	0/34	1000	0/34
Benzo(A)Anthracene	0-1.60	1	5/34	11	0/34
Benzo(A)Pyrene	0-1.60	1	5/34	1.1	5/34
Benzo(B)Fluoranthene	0-2.00	1	5/34	11	0/34
Benzo(G,H,I)Perylene	0-1.30	100	0/34	1000	0/34
Benzo(K)Fluoranthene	0-0.840	0.8	2/34	110	0/34
Chrysene	0-1.70	1	5/34	110	0/34
Dibenz(A,H)Anthracene	0-0.390	0.33	2/34	1.1	0/34
Fluoranthene	0-3.40	100	0/34	1000	0/34
Fluorene	0-2.20	30	0/34	1000	0/34
Indeno(1,2,3-C,D)Pyrene	0-1.40	0.5	6/34	11	0/34
Naphthalene	0-5.00	12	0/34	1000	0/34
Phenanthrene	0-4.20	100	0/34	1000	0/34
Phenol	0-3.10	0.33	6/34	1000	0/34
Pyrene	0-3.20	100	0/34	1000	0/34

VOC PART 375					
1,3-Dichlorobenzene	0-0.260	2.4	0/34	560	0/34
Ethylbenzene	0-0.00130	1	0/34	780	0/34
Methylene Chloride	0-0.0210	0.05	0/34	1000	0/34
N-Butylbenzene	0-0.540	12	0/34	1000	0/34
N-Propylbenzene	0-0.350	3.9	0/34	1000	0/34
Sec-Butylbenzene	0-0.310	11	0/34	1000	0/34
Toluene	0-0.0630	0.7	0/34	1000	0/34

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Industrial Use, unless otherwise noted.
.

The primary soil contaminants are PCBs originating from dielectric fluid formerly contained in on-site transformers and other electrical equipment used for power distribution at the plant.

PCB surface soil contamination was found above the protection of public health SCO for an industrial property due likely to the method of release of the dielectric fluid to the ground or use of contaminated fill to level this portion of the site.

Metals (inorganics) that are present are associated with the fill materials used to grade the site. These fill materials include ash, bricks, clinker, and various types of demolition debris. Disposal of these materials has resulted in inorganic soil contamination above the unrestricted SCGs. However, the inorganic concentrations are consistent to samples collected elsewhere on the Former Adirondack Steel property and are not associated with the release of dielectric fluids. Therefore, metals contributing to soil contamination, are not considered site specific contaminants of concern.

Based on the findings of the Remedial Investigation, the past disposal of hazardous waste has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are, PCBs.

Surface Water

Surface water samples were collected during the OU-01 RI from locations upstream, on-site and downstream from the site. Four sample locations from the OU-01 RI are relevant to the OU-03 PRAP. The samples were collected to assess the surface water conditions on and off-site. The results indicate that contaminants in surface water at the site exceed the Department's SCG for polychlorinated biphenyls (PCBs).

Table #3 - Surface Water

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG (ppb)[b]	Frequency Exceeding SCG
Inorganics			
Aluminum	831 - 1,300	100	2/2
Chromium	2	25	0/2
Copper	8	78	0/2
Iron	1,720 - 3440	300	2/2
Nickel	4.3	79	0/2
Vanadium	1 - 2	14	0/2
Zinc	26 – 36	79	0/2
Pesticides/PCBs			
Aroclor 1260	0.49 – 0.73	0.00009	2/4

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b-SCG: Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1) and 6 NYCRR Part 703: Surface Water and Groundwater Quality Standards.

The primary surface water contaminant is polychlorinated biphenyls (PCBs) associated with maintenance and scrapping of transformers and other electrical equipment at the former transformer junk yard. Elevated concentrations of PCBs were detected at locations immediately downstream of PCB-impacted sediment and surface soil but were not detected at sample locations upstream of the site. Therefore, the primary surface water contamination is associated with high concentrations of PCB-contaminated sediment and soil in the adjacent drainageway banks.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has resulted in the contamination of surface water. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of surface water to be addressed by the remedy selection process are, PCBs.

Sediment

Sediment samples were collected during the RI from the on-site drainageway and at an upstream location. Drainageway locations downstream from OU-03 will be included in the OU-02 PRAP. The drainageway flows into the city of Watervliet storm sewer system. The samples were collected to assess the potential for impacts to drainageway sediment from the site. The results indicate that sediment in the on-site drainageway exceeds the Department's Class A sediment guidance values to screen for contaminants that may be of concern. Comparing results of the sediment sample analysis showed that cadmium, lead, nickel, zinc and PCBs have the potential to be toxic (Class B) or are toxic (Class C) to aquatic life. Due to the known impacts of PCBs in the sediment, only a few additional samples were collected for analysis of VOC's, SVOC's, pesticides, or metals.

Table #4 - Sediment

Detected Constituents	Concentration Range Detected (ppm or ppb)[a]	Freshwater Sediment Guidance Value (SGV)[b]	Frequency of SGV above Class A
Inorganics			
Arsenic	4.2 – 10.6	A < 10 (B) 33 < C	1/2- Upstream
Cadmium	2.1	A < 1 (B) 5 < C	1/2
Chromium	34.3 – 35.2	A < 43 (B) 110 < C	0/2
Copper	28.6 – 44.7	A < 32 (B) 150 < C	1/2- Upstream
Lead	51.4 - 281	A < 36 (B) 130 < C	2/2
Mercury	0.23	A < 0.2 (B) 1 < C	1/2- Upstream
Nickel	26.3 – 43.0	A < 23 (B) 49 < C	2/2
Zinc	88.5 - 162	A < 120 (B) 460 < C	1/2
Pesticides/PCBs			
Aroclor 1260	0 – 12,000,000	A < 100 (B) 1000 < C	19/27

a - ppm: parts per million for Inorganics, which is equivalent to milligrams per kilogram, mg/kg, and parts per billion for Pesticides/PCBs which is equivalent to micrograms per kilogram, ug/kg, in sediment;
b - SCG: The Department's Screening and Assessment of Contaminated Sediment, 2014.

The primary sediment contaminant are PCBs associated with the disposal of dielectric fluid from the on-site transformers and other electrical equipment. As noted on Figure 5b, the primary sediment contamination is found in the on-site drainageway.

Other contaminants found in the on-site drainageway sediment are co-located with PCBs, the primary contaminants and, therefore, are not considered a site specific contaminant of concern.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has resulted in the contamination of sediment. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of sediment to be addressed by the remedy selection process are, PCBs.

Exhibit B

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2: Site Management

The Site Management Alternative requires only institutional controls for the site. This alternative includes institutional controls, in the form of an environmental easement and a site management plan, necessary to protect public health and the environment from any contamination identified at the site.

Present Worth: *$204,000*
Capital Cost: *$0*
Annual Costs: *$5,000*

Alternative 3a: Soil Excavation to meet Part 375 Commercial SCOs with Off-site Disposal

This alternative includes excavation of all PCB-contaminated soil that exceeds a concentration of 1 ppm. Removing all PCB-contaminated soil that exceeds 1 ppm also addresses all metals and SVOCs which exceed commercial SCOs. Drainageway sediment is excavated to achieve a concentration of 1 ppm or less. The contaminated soil and sediment are excavated, stockpiled, characterized, and properly disposed of at an off-site, permitted facility. Soil containing PCBs at concentrations greater than or equal to 50 ppm, is considered hazardous and is disposed of at a facility permitted to accept hazardous waste, while those soil with PCB concentrations less than 50 ppm is considered non-hazardous and is disposed of at a solid waste facility permitted to accept PCB-contaminated soil. To meet Part 375 Commercial SCOs, all PCB concentrations greater than 1 ppm, regardless of depth must be removed. The quantity of soil containing greater than 1 ppm of PCBs at non-hazardous concentrations is estimated to be 17,800 cubic yards while the quantity of soil containing greater than 1 ppm of PCBs at hazardous concentrations is estimated to be 1,900 cubic yards.

Off-site PCB-contaminated soil will be excavated to achieve a maximum PCB concentration of 1 ppm. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be imported to replace excavated material in off-site areas.

The existing site cover must be maintained. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, or sidewalks comprising the site development. In the locations of the existing building footprints (Metal Building, Block Building, and Forge Shop slab) the existing foundation slab will serve as the cover.

Confirmation sampling is required at all locations of soil/fill excavation to assure adequate removal of contaminated media. Sampling is performed at the bottom and sidewalls of each excavation site.

An environmental easement is required for the controlled property that periodic certification of institutional and engineering controls, allows the use and development of the controlled property for commercial and industrial uses, restricts the use of groundwater and, requires compliance with the Department approved Site Management Plan.

Present Worth: *$6,248,000*
Capital Cost: *$6,295,000*
Annual Costs: *$3,000*

Alternative 3b: Soil Excavation to meet Commissioner Policy-51 SCOs with Off-site Disposal

This alternative includes, excavation of all PCB-contaminated soil that exceeds a concentration of 1 ppm in the top foot of soil and 10 ppm below the top foot as provided for in Commissioner Policy-51 (CP-51). Drainageway sediment is excavated to achieve a concentration of 1 ppm or less. The contaminated soil and sediment are excavated, stockpiled, characterized, and properly disposed of at an off-site, permitted facility. Soil containing PCBs at concentrations greater than or equal to 50 ppm, is considered hazardous and is disposed of at a facility permitted to accept hazardous waste, while soil with PCB concentrations less than 50 ppm is considered non-hazardous and is disposed of at a solid waste facility permitted to accept PCB contaminated soil. To meet CP-51 SCOs, the quantity of soil exceeding CP-51 criteria at non-hazardous concentrations is estimated to be 16,500 cubic yards while the quantity of soil exceeding CP-51 criteria at hazardous concentrations is estimated to be 1,900 cubic yards.

Off-site PCB-contaminated soil will be excavated to achieve a maximum PCB concentration of 1 ppm. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be imported to replace excavated material in off-site areas.

Confirmation sampling is required at all locations of soil/fill excavation to assure adequate removal of contaminated media. Sampling would be performed at the bottom and sidewalls of each excavation site.

This remedy relies on a minimum of 1 foot of cover soil over soil containing up to 10 ppm of PCBs and any soil which exceeds commercial SCOs for any other contaminant, therefore a site management plan is necessary that specifies the procedures required to maintain the site remedy and protect the future occupants of the site. In addition to the soil cover requirement, the existing site cover must be maintained. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, or sidewalks comprising the site development. In the locations of the existing building footprints (Metal Building, Block Building, and Forge Shop slab) the existing foundation slab will serve as the cover.

An environmental easement is required for the controlled property that periodic certification of institutional and engineering controls, allows the use and development of the controlled property for commercial and industrial uses, restricts the use of groundwater and, requires compliance with the Department approved Site Management Plan.

Present Worth: *$6,021,000*
Capital Cost: *$6,104,000*
Annual Costs: *$6,000*

Alternative 3c: Soil Excavation to meet Part 375 Industrial SCOs with Cover and Off-site Disposal

This alternative includes, excavation of all soil which exceeds any industrial SCOs, including PCB-contaminated soil that exceeds a concentration of 25 ppm where feasible. Drainageway sediment is excavated to achieve a concentration of 1 ppm or less. The contaminated soil is excavated, stockpiled, characterized, and properly disposed of at an off-site, permitted facility. Soil containing PCBs at concentrations greater than or equal to 50 ppm, is considered hazardous and is disposed of at a facility permitted to accept hazardous waste, while soil with PCB concentrations less than 50 ppm is considered non-hazardous and is disposed of at a solid waste facility permitted to accept PCB-contaminated soil. To achieve Part 375 Industrial SCOs, all PCB concentrations greater than 25 ppm, regardless of depth must be removed. The quantity of soil containing greater than 25 ppm of PCBs in soil and 1 ppm PCBs in sediment at non-hazardous concentrations is estimated to be 9,100 cubic yards while the quantity of soil containing greater than 25 ppm of PCBs at hazardous concentrations is estimated to be 1,900 cubic yards. In addition to PCBs, isolated areas of SVOC exceedances in the surface are excavated and disposed off-site. The volume of soil to be excavated to address SVOC impacts is estimated at 11 cubic yards.

Off-site PCB-contaminated soil will be excavated to achieve a maximum PCB concentration of 1 ppm. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be imported to replace excavated material in off-site areas.

Confirmation sampling is required at all locations of soil/fill excavation to assure adequate removal of contaminated media. Sampling would be performed at the bottom and sidewalls of each excavation site.

This remedy relies on a minimum of 1 foot of cover soil over any remaining soils containing up to 25 ppm of PCBs and any remaining soils which exceed industrial SCOs for any other contaminant, therefore a site management plan is necessary that specifies the procedures required to maintain the site remedy and protect the future occupants of the site.

Present Worth: *$4,192,000*
Capital Cost: *$4,099,000*
Annual Costs: *$6,000*

Alternative 4a: Soil Excavation and On-Site Treatment by High Temperature Thermal Desorption to meet Part 375 Commercial SCOs

This alternative includes, excavation of contaminated soil using conventional construction equipment to remove soil and sediment containing greater than 1 ppm PCBs. During the excavation process, PCB field screening tests and dewatering would be conducted. The maximum depth of excavation in the excavation area would be at least 8 feet bgs, based on contaminated sample depths.

Excavated soil containing greater than 50 ppm of PCBs would be disposed of at a facility permitted to accept hazardous waste. Soil containing less than 50 ppm of PCBs will be placed in storage piles near the mobile treatment unit. While awaiting treatment, the storage piles are to be mechanically mixed (typically a front-end

loader) and screened or crushed such that the material is 3 inches or smaller in the stockpile. For costing purposes, it is assumed that the material would contain 85% solids or greater and dewatering (or drying) of this material would not be required. Soil containing less than 50 ppm of PCBs is treated by high temperature thermal desorption to remove PCBs to a concentration of less than 1 ppm. The quantity of soil containing greater than 1 ppm of PCBs at non-hazardous concentrations is estimated to be 17,800 cubic yards while the quantity of soil containing greater than 1 ppm of PCBs at hazardous concentrations is estimated to be 1,900 cubic yards.

Treated soil which meets the commercial SCOs can be used as backfill on-site.

Contaminants that are not treatable by HTTD, such as metals, must be addressed separately through excavation and off-site disposal. The quantity of soil impacted by metals exceeding Commercial SCOs is a significant fraction of the total soil requiring remediation at the site with potentially up to 5,000 cubic yards due to the sporadic nature of detections.

Off-site PCB-contaminated soil will be excavated to achieve a maximum PCB concentration of 1 ppm. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be imported to replace excavated material in off-site areas.

Confirmation sampling is required at all locations of soil/fill excavation to assure adequate removal of contaminated media. Sampling would be performed at the bottom and sidewalls of each excavation site.

An environmental easement is required for the controlled property that periodic certification of institutional and engineering controls, allows the use and development of the controlled property for commercial and industrial uses, restricts the use of groundwater and, requires compliance with the Department approved Site Management Plan.

Present Worth: *$10,767,000*
Capital Cost: *$10,860,000*
Annual Costs: *$6,000*

Alternative 4b: Soil Excavation and On-Site Treatment by High Temperature Thermal Desorption to meet Commissioner Policy-51 SCOs

This alternative includes, excavation of contaminated soil using conventional construction equipment to remove soil containing greater than 1 ppm PCBs. During the excavation process, PCB field screening tests and dewatering would be conducted. The maximum depth of excavation in the excavation area would be at least 8 feet bgs, based on contaminated sample depths.

Excavated soil containing greater than 50 ppm of PCBs would be disposed of at a facility permitted to accept hazardous waste. Soil containing less than 50 ppm of PCBs will be placed in storage piles near the mobile treatment unit. While awaiting treatment, the storage piles are to be mechanically mixed (typically a front-end loader) and screened or crushed such that the material is 3 inches or smaller in the stockpile. For costing purposes, it is assumed that the material would contain 85% solids or greater and dewatering (or drying) of this material would not be required. Soil containing less than 50 ppm of PCBs is treated by high temperature thermal desorption to remove PCBs to a concentration of less than 1 ppm. Treated soil which meets the commercial SCOs can be used as backfill on-site.

This remedy relies on a minimum of 1 foot of cover soil over soil containing up to 10 ppm of PCBs and any soil which exceed commercial SCOs for any other contaminant, therefore a site management plan is necessary that specifies the procedures required to maintain the site remedy and protect the future occupants of the site. The quantity of soil containing greater than CP-51 criteria of PCBs at non-hazardous concentrations is estimated to be 16,500 cubic yards while the quantity of soil containing greater than 1 ppm of PCBs at hazardous concentrations is estimated to be 1,900 cubic yards.

Contaminants that are not treatable by HTTD, such as metals, must be addressed separately through excavation and off-site disposal or could be placed below the 1-foot thick soil cover. The quantity of soil impacted by metals exceeding Commercial SCOs is a significant fraction of the total soil requiring remediation at the site with potentially up to 5,000 cubic yards due to the sporadic nature of detections.

Off-site PCB-contaminated soil will be excavated to achieve a maximum PCB concentration of 1 ppm. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be imported to replace excavated material in off-site areas.

Confirmation sampling is required at all locations of soil/fill excavation to assure adequate removal of contaminated media. Sampling would be performed at the bottom and sidewalls of each excavation site.

An environmental easement is required for the controlled property that periodic certification of institutional and engineering controls, allows the use and development of the controlled property for commercial and industrial uses, restricts the use of groundwater and, requires compliance with the Department approved Site Management Plan.

Present Worth: *$7,303,000*
Capital Cost: *$7,210,000*
Annual Costs: *$6,000*

Alternative 5: Restoration to Pre-Disposal or Unrestricted Conditions

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A and soil meets the unrestricted soil clean objectives listed in Part 375-6.8 (a). This alternative would include: excavation and off-site disposal of all historic fill material, approximately 47,500 cubic yards, with the importation of the same amount of clean fill to return the site to a similar elevation. The on-site building and foundations would be demolished and disposed of off-site. Groundwater would likely be encountered and have to managed. This alternative addresses the frequent sporadic occurrences of metals exceeding Unrestricted SCOs in areas of the site not impacted by PCBs. It requires the transport of approximately 100,000 cubic yards of material or 5,500 truckloads at a cost likely to exceed $100 per cubic yard of material removed and $50 per yard of material placed. No site management plan, institutional or engineering controls would be required under this alternative.

Off-site PCB-contaminated soil will be excavated to achieve a maximum PCB concentration of 1 ppm. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for residential use will be imported to replace excavated material in off-site areas.

Capital Cost: *$10,146,000*

Exhibit C

Remedial Alternative Costs

Remedial Alternative	Capital Cost ($)	Annual Costs ($)	Total Present Worth ($)
No Action (1)	0	0	0
Site Management (2)	204,000	0	204,000
Off-Site Disposal – Commercial (3a)	6,248,000	3,000	6,295,000
Off-Site Disposal – CP-51 Criteria (3b)	6,021,000	6,000	6,104,000
Off-Site Disposal – Industrial (3c)	4,099,000	6,000	4,192,000
High Temperature Thermal Desorption – Commercial (4a)	8,613,000	6,000	8,706,000
High Temperature Thermal Desorption – CP-51 Criteria (4b)	7,210,000	6,000	7,303,000
Predisposal (5)	10,146,000	0	10,146,000

Exhibit D

SUMMARY OF THE SELECTED REMEDY

The Department has selected Alternative #3b, excavation and off-site disposal of soil and sediment that exceeds 1 ppm PCBs in surface and 10 ppm below 1 foot in the subsurface as the remedy for this site. Alternative #3b achieves the remediation goals for the site by removing grossly contaminated PCB impacted soil and all sediment with PCB concentrations greater than 1 ppm and also by preventing contact with lightly impacted, remaining soil. The elements of this remedy are described in Section 7. The selected remedy is depicted in Figure 5a.

Basis for Selection

The selected remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

The selected remedy (Alternative 3b) would satisfy this criterion by removing the most contaminated soil and sediment from the site. Alternatives 1 (No Action) and 2 (Site Management) do not provide any protection to public health and the environment and will not be evaluated further. Alternative 5, by removing all soil contaminated above the unrestricted soil cleanup objective, meets the threshold criteria. Alternative 4a achieves the same level of protection as 3a with both alternatives requiring maintenance of the existing covers. Alternative 4b and 3c also comply with this criterion but with lesser certainty. Each alternative, other than Alternative 5, require institutional and engineering controls. Each alternative achieves off-site protection of human health and the environment to the same degree.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternative 3b satisfies this criterion by addressing all soil and sediment above SCGs, via removal, off-site disposal and a cover. Alternatives 3a, 4a and 4b would also satisfy this criterion as they would achieve the SCGs for the intended site use. Alternatives 3b, 3c, and 4b, rely on a cover system to achieve the soil SCGs for the intended site use while alternative 5 satisfies the SCG for the intended site use by achieving unrestricted use of the property. Each alternative achieves off-site compliance with SCGs to the same degree.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the

engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Long-term effectiveness is best accomplished by those alternatives involving excavation and off-site disposal of the contaminated overburden soil and drainageway sediment (Alternatives 3a, 4a, and 5). However, since the highest concentrations of the PCB contamination are near the northern boundary of OU-03, Alternative 3b results in removal of almost as much PCB contamination at the site as Alternatives 3a and 4a. Alternative 3a results in the removal of all known PCB contamination greater than 1 ppm at the site. Alternatives 3b, 3c and 4b require a cover system, an environmental easement and long-term site management to achieve long-term effectiveness while alternatives 3a and 4a, require an environmental easement and long-term site management to achieve this criterion. Alternative 5 results in the most permanent remedy for this site, as no easement or continued site management is required. Each alternative achieves the same degree of long-term effectiveness.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives 3b, and 4b, control potential exposures with a cover system and institutional controls in addition to either soil removal or soil treatment. Alternatives 3a, 3b, 3c, and 5 via excavation and off-site disposal, reduce the toxicity and mobility of on-site waste by transferring the material to an approved off-site location. Alternatives 4a and 4b permanently reduce the toxicity, mobility and volume of organic contaminants by use of high temperature thermal treatment but require off-site disposal for the inorganic contamination present at portions of the site. Off-site reduction of toxicity, mobility and volume is achieved equally by each alternative.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Alternatives 3a through 4b all have short-term impacts which are easily be controlled, however, Alternative 5 has the greatest short-term impact on green remediation goals since it would require transportation of approximately 100,000 cubic yards of soil (removal and backfill). The time needed to achieve the remediation goals is the shortest for Alternative 3b and longest for Alternative 5. There is no difference between the short-term impacts caused by off-site activities.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

Alternatives 3a, 3b, 3c, 4a, and 4b are favorable in that they are readily implementable, although 4a and 4b are less so since they require the construction and operation of the HTTD treatment system. Alternative 5 is also implementable, but the volume of soil excavated under this alternative necessitates significant increased truck traffic on local roads for several months. Alternatives 4a and 4b require pilot testing and significant handling of soil to prepare them for thermal treatment, making them much more difficult to implement. The off-site component of each alternative is readily implementable.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion

evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

The costs of the alternatives vary significantly. Alternative 3a is the most expensive restricted use remedy but is within 5% of alternative 3b. Alternative 3c is approximately 30% lower than 3a and 3b due to the decreased volume of soil requiring excavation and off-site disposal but allows more limited use of the site. With its large volume of soil to be handled, Alternative 5 (excavation and off-site disposal) would have the highest present worth cost. Alternatives 4a and 4b are 20 to 30% higher than and allow for the same level of usage as 3b.

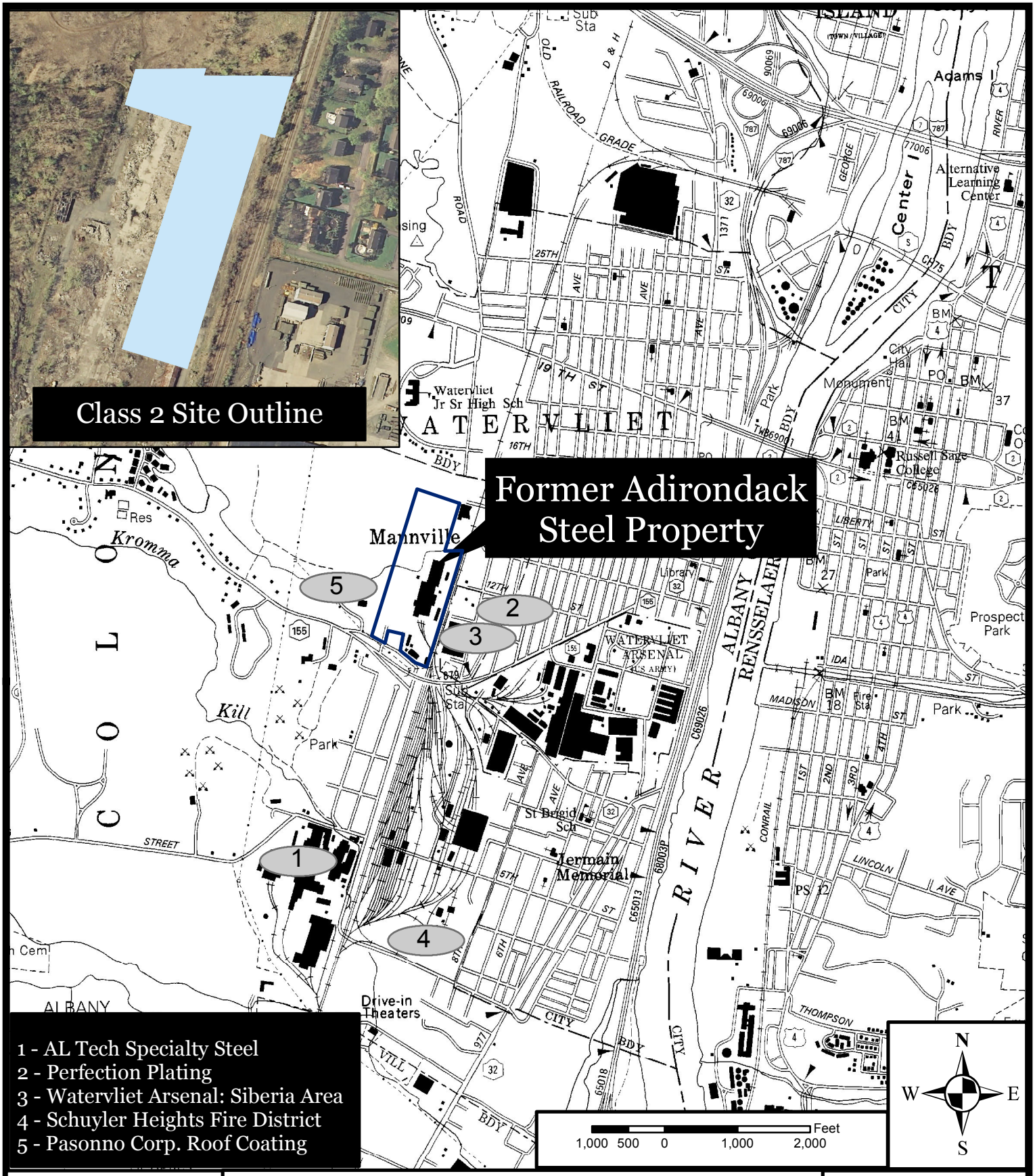
8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

Alternatives 3a, 3b, 4a and 4b would all allow commercial or industrial use of the property once implemented. Alternative 3c would only allow industrial use of the property, while alternative 5 would not have any use restrictions.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP were evaluated. A responsiveness summary was prepared that describes public comments received and the manner in which the Department addressed the concerns raised.

Alternative 3b was selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criteria.



SITE LOCATION

Former Adirondack Steel Site
4-01-039

FIGURE 1

Legend

- Operable Unit 1
- Operable Unit 2
- Operable Unit 3
- Former Adirondack Steel Property Boundary

Notes:

1. Acreage
OU-1 = 0.37 Acres
OU-2 = 2.09 Acres
OU-3 = 3.77 Acres
Site = 4.14 Acres

2. The Site is comprised of OU-1 and OU-3

500 250 0 500
Feet

New York State
Department of Environmental
Conservation

Division of
Environmental Remediation

FIGURE 2

Operable Units

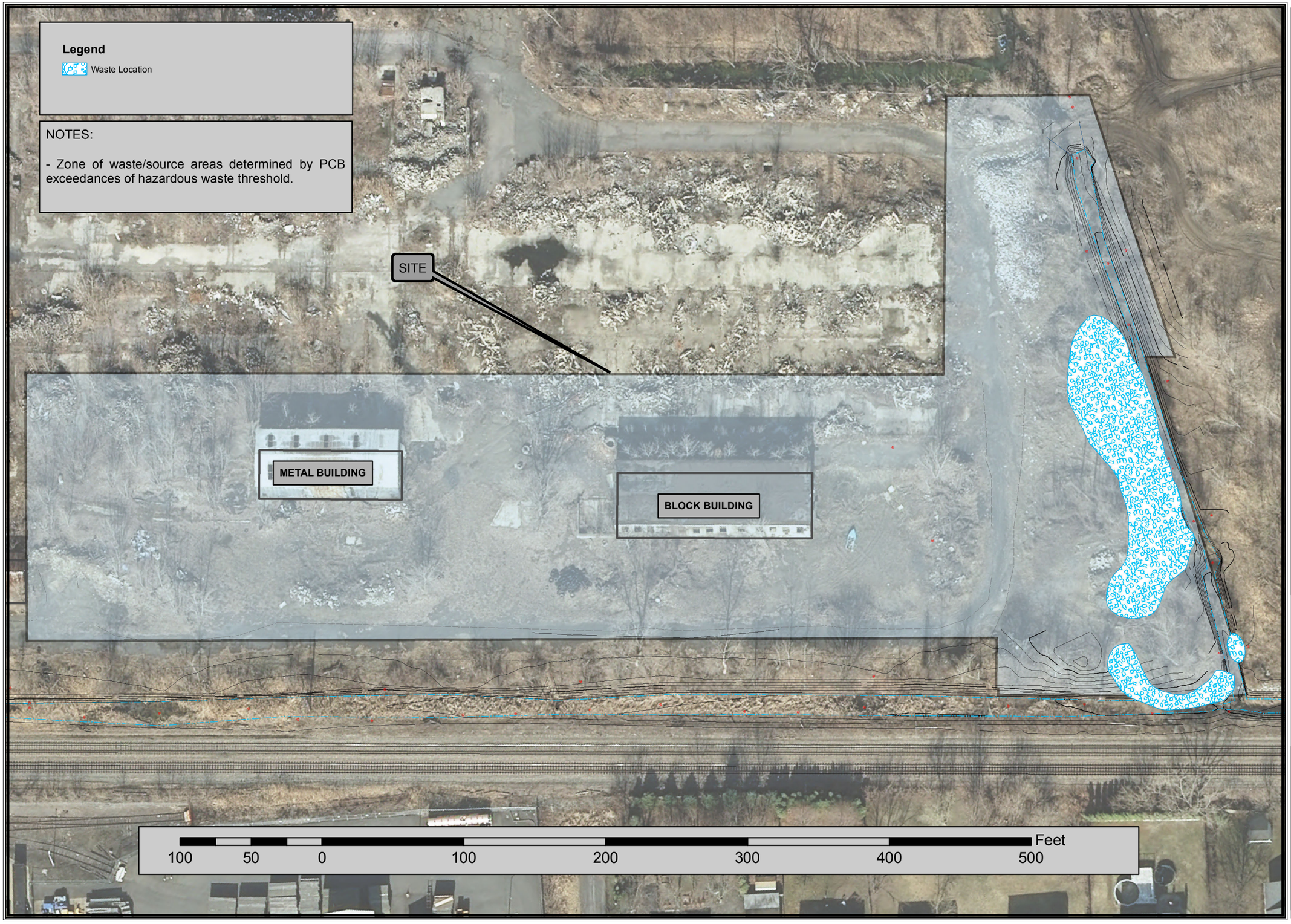
Former Adirondack Steel

DEC Site No.: 4-01-039

Map Details

Created in ArcMap 10.1
Date of Last
Revision: 01.23.2013

North American Datum 1983
UTM Zone 18



New York State
Department of Environmental Conservation
Division of
Environmental Remediation

FIGURE 3

Areas of PCB Waste

Former Adirondack Steel
OU-03
Remedial Investigation

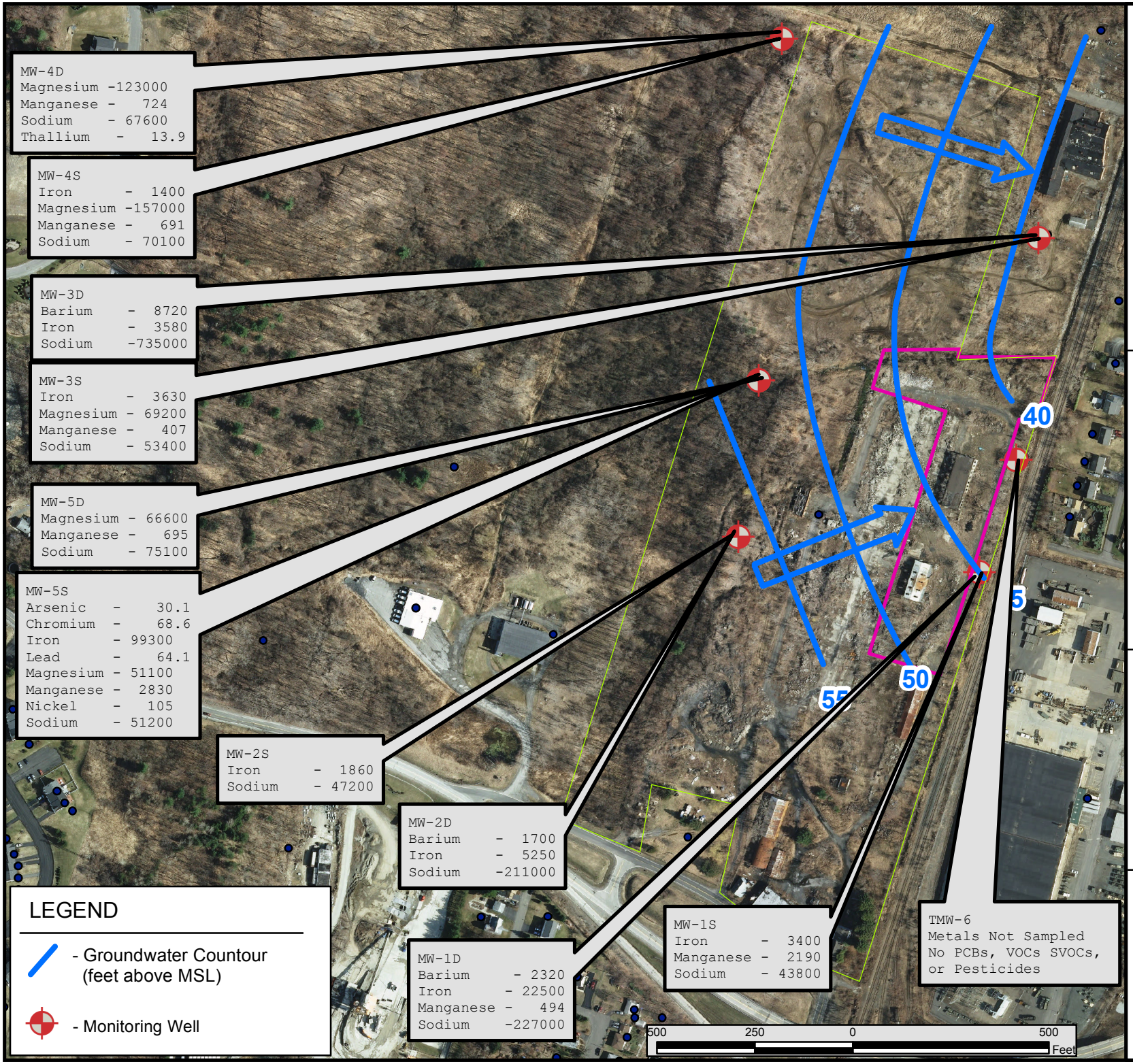
DEC Site No.: 4-01-039

Figure Details
Created in ArcMAP 10

Date of Last
Revision: 11.07.2014

Norht American Datum 1983
UTM Zone 18

N



New York State
Department of Environmental Conservation

Division of
Environmental Remediation

FIGURE 4

Groundwater Analytical Results

Former Adirondack Steel

DEC Site No.: 4-01-039

Map Details

Created in ArcMap 10.0
Date of Last
Revision: 11.19.2014

N
W E
S

North American Datum 1983
UTM Zone 18

Legend

PCBs Present: Exceed Hazardous Waste Threshold

Depth (ft)

- 1
- 2
- 3 - 4
- 5 - 10

PCBs Present: Exceed 1 ppm SCO

Depth (ft)

- 1
- 2
- 3 - 4
- 5 - 10

PCBs Present: Exceed 0.1 ppm SCO

Depth (ft)

- 1
- 2
- 3 - 4
- 5 - 10

PCBs Present: Exceed CP-51 Criteria

Depth (ft)

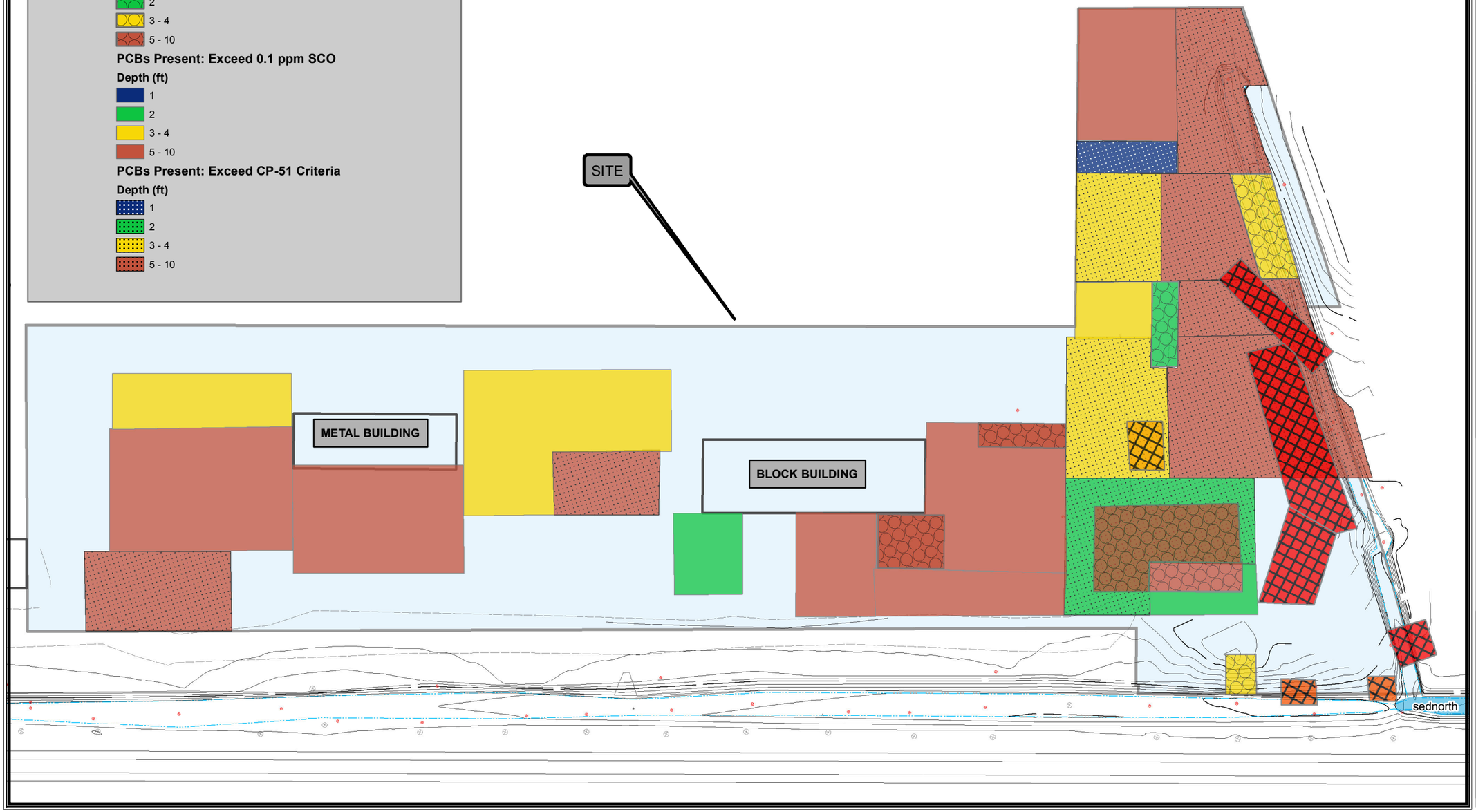
- 1
- 2
- 3 - 4
- 5 - 10

NOTES:

- Hazardous waste threshhold is 50 ppm.

- CP-51 Criteria: Commissioner Policy 51 - Soil Cleanup Guidance. PCBs may be cleaned up to 1 ppm in the top foot of soil and 10 ppm below the top foot.

100 50 0 100 200 Feet



New York State
Department of Environmental Conservation

Division of
Environmental Remediation

FIGURE 5a

Excavation Areas of
PCB-Impacted Soils

Former Adirondack Steel
OU-03
Remedial Investigation

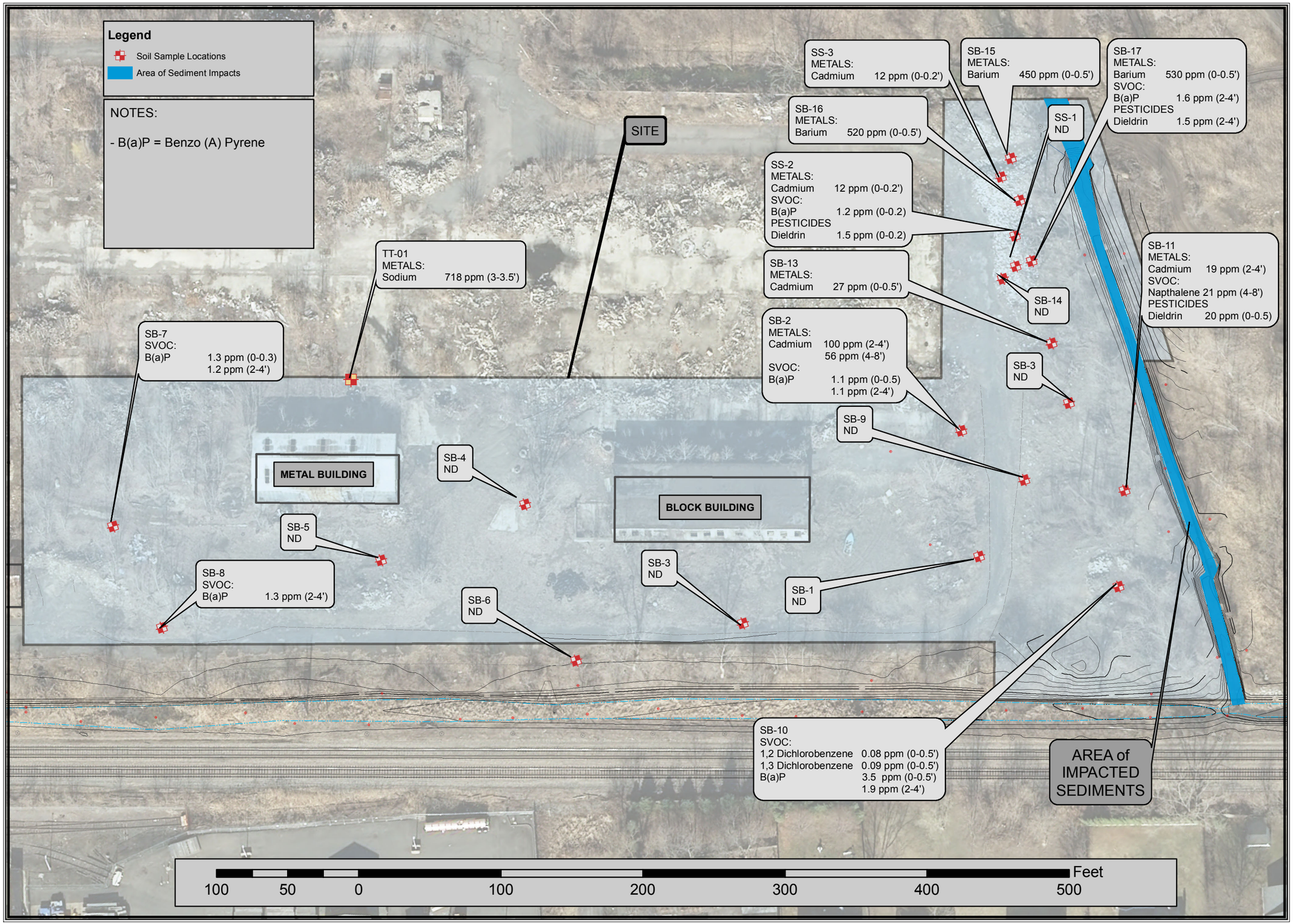
DEC Site No.: 4-01-039

Figure Details
Created in ArcMAP 10

Date of Last
Revision: 01.08.2015

Norht American Datum 1983
UTM Zone 18

N



New York State
Department of Environmental Conservation

Division of
Environmental Remediation

FIGURE 5b

Non-PCB Detected Contaminants

Former Adirondack Steel
OU-03
Remedial Investigation

DEC Site No.: 4-01-039

Figure Details
Created in ArcMAP 10

Date of Last
Revision: 11.07.2014

Norht American Datum 1983
UTM Zone 18

N

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Former Adirondack Steel
Operable Unit No. 03
State Superfund Project
Town of Colonie, Albany County New York
Site No. 401039

The Proposed Remedial Action Plan (PRAP) for the Former Adirondack Steel site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 11, 2015. The PRAP outlined the remedial measure proposed for the contaminated soil, sediment, and surface water at the Former Adirondack Steel site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 3, 2015, which included a presentation of the remedial investigation feasibility study (RI/FS) for the Former Adirondack Steel as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 13, 2015.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT #1 - Will the remediation have an impact on the residential neighborhood to the east across the railroad tracks?

RESPONSE #1 - There should not be any impacts to the community since a Community Air Monitoring Plan (CAMP), stormwater management plan and a soils management plan will be in-place to ensure this doesn't occur. A CAMP requires real-time monitoring for volatile organic compounds and particulates at the downwind perimeter of each designated work area. The intent of the CAMP is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of remedial work activities. The action levels specified in the CAMP require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, data collected through implementation of the CAMP helps to confirm that work activities did not result in airborne site-related contaminants exceeding

action levels beyond the limits of the on-site work zone.

COMMENT #2 - Were the residential yards on the east side of the railroad tracks tested for the presence of PCBs?

RESPONSE #2 - Yes. Results of the soil sampling will be provided to homeowners by way of letter.

COMMENT #3 - How will the potential for air-borne PCBs to migrate off-site be controlled during the excavation?

RESPONSE #3 - See Response #1.

COMMENT #4 - Were other areas tested on the Former Adirondack Steel property besides the Class 2 Site?

RESPONSE #4 - Yes. A property-wide site characterization was conducted that included soil, groundwater, surface water and sediment. The results are included in the Remedial Investigation Report dated July 2007.

COMMENT #5 - When was the last time the site was sampled?

RESPONSE #5 - Soil samples were last collected and analyzed in 2014

COMMENT #6 - When will you address Operable Unit 2 and select a remedy?

RESPONSE #6 - Later this year. The Department needs to address the upland source area first to prevent recontamination of the drainageway.

COMMENT #7 - Are there monitoring wells on the Former Adirondack Steel Site?

RESPONSE #7 - Yes, there are a total of 11 monitoring wells.

COMMENT #8 - How many acres is the entire property?

RESPONSE #8 - Approximately 39 acres.

COMMENT #9 - Will there be any more testing on the east side of the railroad tracks?

RESPONSE #9 - No, the existing data show that site-related contamination did not migrate over the railroad right-of-way into residential yards.

COMMENT #10 - Will the NYSDEC storm water management regulations be followed during the cleanup?

RESPONSE #10 - Yes.

COMMENT #11 - How long will the cleanup take?

RESPONSE #11 - Approximately six months, once it starts.

APPENDIX B

Administrative Record

Administrative Record

Former Adirondack Steel
Operable Unit No. 3
State Superfund Project
Colonie, Albany County, New York
Site No. 401039

1. Proposed Remedial Action Plan for the Former Adirondack Steel site, Operable Unit No. 3, dated March 2015, prepared by the Department.

2. Referral Memorandum dated December 18, 2003 for conducting a remedial investigation and feasibility study and, if necessary, performing interim remedial measures.

3. "Technical Work Plan for the Remedial Investigation and Feasibility Study at the Former Adirondack Steel Site, Site No. 4-01-039, Colonie, New York", September 2005 prepared by Ecology and Environment Engineering, P.C.

4. "Final Remedial Investigation Report for the Former Adirondack Steel Site Colonie, New York", August 2008, prepared by Ecology and Environment Engineering, P.C.

5. "Interim Remedial Measures Final Work Plan Former Adirondack Steel Site, Colonie, New York", April 2009, prepared by Ecology and Environment Engineering, P.C.

6. "Final Interim Remedial Measure Report for the Former Adirondack Steel Site Colonie, New York", February 2010, prepared by Ecology and Environment Engineering, P.C.

7. "Final Feasibility Study Report for Former Adirondack Steel Site Operable Unit OU-03, Town of Colonie, New York", May 2014, prepared by Ecology and Environment Engineering, P.C.

8. "Final Feasibility Study Report Addendum for Former Adirondack Steel Site Operable Unit OU-03, Town of Colonie, New York", December 2014, prepared by Ecology and Environment Engineering, P.C.

9. Letter dated May 27, 2009 from United States Environmental Protection Agency Approval for Cleanup and Disposal of PCB Remediation Waste under 40 CFR §761.61(a), and Approval for Characterization and Verification Sampling under 40 CFR §761.61(c)

10. Letter dated February 5, 2015 from the New York State Department of Heath stating the agency's concurrence that the remedy specified in the Proposed Remedial Action Plan is protective of public health.