

DECISION DOCUMENT

240 - 260 Lakefront Boulevard Site
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915340
May 2020



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

DECLARATION STATEMENT - DECISION DOCUMENT

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Brownfield Cleanup Program
Buffalo, Erie County
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Statement of Purpose and Basis

This document presents the remedy for the 240 - 260 Lakefront Boulevard Site site, a brownfield cleanup 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.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the 240 - 260 Lakefront Boulevard site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

Remedial Design:

1. 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;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a

minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

3. Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require 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);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict 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
- require compliance with the Department approved Site Management Plan.

4. 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 engineering controls remain in place and effective.

Institutional Controls: The Environmental Easement discussed in Paragraph 3 above.

Engineering Controls: The site cover discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper two feet of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs);
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor

intrusion.

- 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.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater quality;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- monitoring the integrity of the off site, downgradient, sheet pile wall; and,
- a schedule of monitoring and frequency of submittals to the Department.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

Date

Michael Cruden, Director
Remedial Bureau E

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Buffalo, Erie County
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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 contaminants 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 contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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 proposed 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:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C915340>

Buffalo & Erie County Public Library - Central
1 Lafayette Square
Buffalo, NY 14203
Phone: (716) 858-8900

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 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 240-260 Lakefront Boulevard is situated within the Erie Basin Marina area, in the City of Buffalo, Erie County. The site sits at the northwest corner of Lakefront Boulevard and Ojibwa Circle with the Erie Basin Marina to the south. The site is in a highly developed, high density residential area with multi-family high rise residential and townhome development.

Site Features:

The approximately 2.1-acre site consists of vacant, urban land. The western portion of the site has approximately 120 feet of frontage on the Erie Basin Marina.

Current Zoning and Land Use:

The site is currently vacant and zoned D-R allowing for large-scale, integrated residential campuses.

Past Use of the Site:

The site was historically part of a commercial harbor (Erie Basin Marina) with most of the area consisting of a waterway for freight shipments. A portion of a railway dock intersected the center of the site with a marina and the Niagara Slip to the Erie Canal to the north.

In the late-1960s the site was filled during the construction of the I-190 which runs parallel to the site approximately 500 feet to the north.

Site Geology and Hydrogeology:

The overburden material was found to be a thin veneer of vegetated topsoil overlying urban fills extending 25 to 30 feet deep to bedrock. Underlying the topsoil, the cohesive fill generally consisted of moderately silty clay with lesser amounts of sand and gravel. Varying amounts of ash, brick, asphalt, cinders, organic matter, and slag were present throughout the fill.

Bedrock, consisting of Onondaga Limestone, ranges from 25 to 33 feet deep. Dipping slightly from east to west, it is suspected that some of the bedrock was removed, possibly to accommodate large lake-freight ships.

Saturated soils were typically found at 10 to 20 feet below grade. Monitoring well sampling notes the static water level generally from 7 to 9 feet below grade, however, due to the proximity of the site to Lake Erie, flow direction and groundwater levels are greatly influenced by lake

conditions.

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 that restrict the use of the site to restricted-residential use (which allows for commercial use and 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 Remedial Investigation (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 available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site or, leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

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. 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 contaminant 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 below. Additionally, the RI Report contains a full discussion of the data. The contaminants of concern identified at this site is/are:

- | | |
|----------------------------------|-----------|
| acetone | antimony |
| benzene | barium |
| phenol | lead |
| polychlorinated biphenyls (PCB) | manganese |
| polycyclic aromatic hydrocarbons | mercury |
| arsenic | |

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

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 Decision Document.

The following IRMs have been completed at this site based on conditions observed during the RI.

Interim Remedial Action

Based on the RI sub-surface analytical results, two hotspots were identified on the eastern portion of the site.

Hotspot No. 1 was a 22 x 30-foot area extending five feet below grade, located on the southeastern corner of the property. Samples collected from EB-14 and SB-04 contained concentrations of PCBs, barium and lead exceeding commercial use SCOs.

Hotspot No. 2 was a 30 x 30-foot area extending to four feet below grade, located approximately 60-feet north of Hotspot No. 1. A test pit sample taken in this area had contained arsenic above industrial use SCOs.

Interim Remedial Measures were implemented to remove contaminated fill material across areas of the site. The IRM activities included:

- Excavation and disposal of two feet of urban fill from across the site;
- Removal and disposal of two hotspots identified above.

Soil excavation was initiated on June 3, 2019. The excavation was conducted to remove two feet of contaminated soil and fill material for off-site disposal allowing for placement of the proposed cover system.

A total of 10,822 tons of contaminated soil and fill material were removed, with 6,410 tons disposed at Tonawanda Terminals Landfill in Niagara Falls, New York, and an additional 4,412 tons disposed at Waste Management Landfill in Chaffee, New York.

A Construction Completion report detailing elements of the IRM was approved in April 2020.

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. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination

Prior to Completion of Remediation:

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and pesticides during the Phase II Site Characterization and the Remedial Investigation (RI). Soil Vapor was analyzed for VOCs. Based upon investigations conducted to date the primary contaminants of concern for

the site include SVOCs, mainly polycyclic aromatic hydrocarbons (PAHs), PCBs, and metals including arsenic, barium, lead and mercury.

Surface soil - Six surface soil samples, 0 to 2 inches below ground surface (bgs), were analyzed. One sample contained PCBs at 0.131 part per million (ppm) (unrestricted use soil cleanup objective (USCO) is 0.1ppm). No other contaminant was found to exceed USCOs in surface soils.

Sub-surface soil - Sub-surface soil sample results ubiquitously exceed USCOs for metals and PAHs. The IRM removed areas considered to be source areas that contained arsenic and PCBs that exceeded restricted residential SCOs, however remaining soils still contain barium, lead and mercury at levels exceeding the restricted residential SCOs.

In one sample collected from 15 feet bgs, barium was detected at 428 ppm (restricted residential SCO 400 ppm). Lead was detected ranging from 6.8 to 1,510 ppm (USCO 63 ppm) in 26 of 47 samples, but only one sample, collected from 15 feet bgs exceeded the restricted residential SCO of 400 ppm. Mercury, detected at concentrations up to 13.8 ppm, exceeds the USCO of 0.18 ppm in 32 of 47 samples and the RRSCO of 0.81 ppm in 6 of 47 samples.

Subsurface soil also contains SVOCs, including PAHs, which are mainly products of incomplete combustion typically found in ash, cinders and asphalt material. Benzo(a)anthracene found at concentrations up to 30 ppm exceeded the RRSCO of 1 ppm in 21 of 53 samples but exceeded the CSCO of 5.6 ppm and the ISCO of 11 ppm in only one sample. Benzo(a)pyrene, was detected at concentrations up to 26 ppm and exceeded its RRSCO in 17 of 53 samples. Benzo(b)fluoranthene was detected at concentrations up to 33 ppm, exceeding the RRSCO of 1 ppm in 20 of 53 samples. Benzo(k)fluoranthene ranging up to 8.7 ppm exceeded the USCO of 0.8 ppm and the RRSCO of 3.9 ppm in 7 of 53 samples. Chrysene ranging up to 23 ppm exceeded the USCO of 1 ppm in 20 of 53 samples, but only one sample exceeded the RRSCO of 3.9 ppm. Dibenzo(1,2,3-cd) pyrene ranging up to 3.9 ppm exceeded the USCO and the RRSCO of 0.33 ppm in 4 of 53 samples. Indeno(1,2,3-cd)pyrene detected at concentrations up to 16 ppm, exceeded the USCO of 0.5 ppm in 22 of 53 samples and the RRSCO of 5.6 ppm in 16 of 54 samples.

Pesticides, including 4,4' DDD, 4,4' DDE and 4,4' DDT were found in sub-surface soils at concentrations ranging from 0.00357 ppm to 0.0153 ppm, exceeding the USCOs of 0.0033 ppm in 5 of 39 samples. None were found to exceed restricted residential SCOs.

PCBs at concentrations up to 1.82 ppm were found in sub-surface soils exceeding the USCO of 0.1 ppm in 18 of 49 samples and the RRSCO of 1 ppm in 3 of 49 samples. The IRM removed two areas containing PCBs detected at 1.74 ppm and 1.66 ppm, respectively, but soils remain which had the highest detection of 1.82 ppm. However, these soils are 15 feet below the ground surface and less than 10 ppm, the guidance value for subsurface soil under Track 4 remedies contained in soil cleanup guidance, Commissioner's Policy-51 (CP-51)

Soil Vapor - Two on-site soil vapor samples were collected from opposite corners of the site, one of which was adjacent to neighboring building. Methylene chloride, a chlorinated volatile

organic compound (CVOC), was detected in the two samples at 1.7 micrograms per cubic meter (ug/m³) and 1.8 ug/m³ respectively. Vinyl chloride was detected at 1.8 ug/m³ in one sample. Acetone was noted in the samples at 1,900 ug/m³ and 870 ug/m³ respectively. Other detections included benzene, common to petroleum products, at 380 ug/m³ and 120 ug/m³.

Groundwater - Two rounds of groundwater sampling from six onsite monitoring wells indicate there is low level VOC contamination, including benzene and acetone, SVOC contamination including PAHs and phenol, and low levels of PCBs, and metals including antimony, arsenic, lead and manganese.

Groundwater was found throughout the fill material. Results from the second round of sampling found VOCs, including benzene, at concentrations up to 2.9 parts per billion (ppb), exceeding the groundwater standard of 1 ppb in 2 of 6 samples. Acetone was detected at concentrations up to 160 ppb, exceeding the groundwater standard of 50 ppb in 2 of 6 samples. SVOCs, including benzo(a)pyrene, found as high as 0.18 ppb, exceeded the groundwater standard of non-detectable in 5 of 6 samples. Other PAHs detected at concentrations up to 0.31 ppb exceeded the collective standard of 0.002 ppb. Phenol at concentrations up to 790 ppb exceeded the groundwater standard of 2 ppb in 2 of 6 samples. Metals, including lead as high as 339 ppb, exceeded the groundwater standard of 50 ppb in 3 of 6 samples. PCBs, including aroclor 1242 as high 0.418 ppb, exceed the groundwater standard of 0.09 in 2 of 6 samples.

Although wells were developed twice, pervasive turbidity remained due to the presence of fine-grained material in the samples, is believed to be the reason for the elevated concentrations of analytes. Metals, such as lead, and PCBs are not readily soluble and tend to adhere the soil and sediment.

Localized groundwater is restricted from lateral migration to the adjacent Erie Basin Marina by a sheet pile wall. Potable water in the City of Buffalo comes from the municipal supply that is unaffected by the site.

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*.

People will not come into contact with contaminated soil or groundwater unless they dig below ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The site is vacant so inhalation of site contaminants in indoor air via vapor intrusion is not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development.

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:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Site Cover and Institutional Controls remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

Remedial Design:

1. 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;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

3. Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require 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);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict 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
- require compliance with the Department approved Site Management Plan.

4. 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 engineering controls remain in place and effective.

Institutional Controls: The Environmental Easement discussed in Paragraph 3 above.

Engineering Controls: The site cover discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper two feet of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs);
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.
- 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.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater quality;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- monitoring the integrity of the offsite, downgradient, sheet pile wall; and,
- a schedule of monitoring and frequency of submittals to the Department.