# **DECISION DOCUMENT**

28 South Division Street
Brownfield Cleanup Program
New Rochelle, Westchester County
Site No. C360198
September 2021



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

## **DECLARATION STATEMENT - DECISION DOCUMENT**

28 South Division Street
Brownfield Cleanup Program
New Rochelle, Westchester County
Site No. C360198
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## **Statement of Purpose and Basis**

This document presents the remedy for the 28 South Division Street 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 28 South Division Street 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:

### 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.
- 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. Excavation

Excavation and off-site disposal of all on-site soils which exceed unrestricted soil cleanup objectives (USCOs), as defined by 6 NYCRR Part 375-6.8. Approximately 22,500 cubic yards of contaminated soil will be removed down to bedrock from the site. Dewatering, including treatment, handling, transport, and off-site disposal, (if required), will be conducted in accordance with applicable local, state and federal regulations, as necessary, to enable the excavation activities.

### 3. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site, as necessary.

## 4. Vapor Intrusion Evaluation

As part of the Conditional Track 1 remedy, 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, if identified.

### 5. Conditional Remedial Elements:

In the event that Track 1 unrestricted use is not achieved, including achievement of soil vapor remedial objectives, the following conditional remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup. Conditional remedial elements would include a Site Management Plan (SMP), Environmental Easement, and/or soil vapor mitigation (if necessary, as noted above).

### A. Institutional Control

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 New York State Department of Health (NYSDOH); and
- require compliance with the Department approved Site Management Plan.

## B. Site Management Plan

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

1. 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:

Institutional Controls: The environmental easement noted above.

Engineering Controls: The vapor mitigation system discussed in item 4 above, if the results of the Vapor Intrusion Evaluation indicate this is necessary.

This plan includes, but may not be limited to:

- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including 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.
- 2. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
  - monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
  - a schedule of monitoring and frequency of submittals to the Department.
- 3. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
  - procedures for operating and maintaining the system(s) if a system is necessary based on the SVI evaluation outlined in item 4 above; and
  - compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

# **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.

9/3/21	Janet ElBirin
Date	Janet Brown, Director
	Remedial Bureau C

## **DECISION DOCUMENT**

28 South Division Street
New Rochelle, Westchester County
Site No. C360198
September 2021

## **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/On-line repository <a href="https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C360198">https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C360198</a>

New Rochelle Public Library\* 1 Library Plaza New Rochelle, NY 10801 Phone: (914) 632-7879

\*Please note that in-person repositories may have limited hours or be temporarily unavailable due to COVID-19 precautions.

## 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 http://www.dec.ny.gov/chemical/61092.html.

## **SECTION 3: SITE DESCRIPTION AND HISTORY**

Site Location: The site is comprised of four adjacent lots, 8, 6, 5 and 4, located at 28, 42, 44 and 48 South Division Street, respectively, in an urban area of the City of New Rochelle, New York. The site occupies 1.066 acres and is bounded to the north by vacant land (former garage building), followed by a mix of commercial and residential buildings; to the south by a commercial building; to the west by Division Street; and to the east by Church Street.

Site Features: The site includes four vacant earthen lots.

Current Zoning and Land Use: The site is zoned D0-2 (Downtown Overlay Zone District) which allows for mixed-use apartment style residential and commercial applications. The surrounding area is mixed commercial/residential.

Past Use of the Site: The portion of the site that is 28 South Division Street (lot 8) formerly housed a portion of a two story, 62,500 square foot municipal parking garage (circa 1972-73), which was demolished and removed in 2018. Prior to this, industrial and automotive operations occurred on-site between circa 1892 and 1951, including a garage with tire repairs, and several upholsterers. The portion of the site that is comprised of 42, 44 and 48 South Division Street (lots 6, 5, and 4, respectively) has historically been residential.

Site Geology and Hydrogeology: The topography in the general area slopes downward to the southeast. Based on the U.S. Geological Survey, Mount Vernon, NY Quadrangle (2013) map, the site is approximately 100 feet above the National Geodetic Vertical Datum of 1988 (an approximation of sea level). Site soils consist of fill materials comprising sand and silt with varying amounts of gravel, concrete, brick, wood, plastic and asphalt. Weathered bedrock was encountered at depths ranging from 3 to 13.5 feet below grade (ft bg).

Groundwater was encountered at depths ranging from 12 to 15 ft bg in soil borings, with groundwater measured at depths ranging from 9.47 to 13.11 ft bg in on-site monitoring wells. Groundwater flows in a southeasterly direction towards the New Rochelle Harbor, approximately 2,000 feet away. There are no surface water bodies or streams at or adjacent to the site.

A site location map is attached as Figure 1.

## **SECTION 4: LAND USE AND PHYSICAL SETTING**

Land Use is controlled by local government, i.e. zoning. 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, an alternative that allows for unrestricted use of the site was evaluated.

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: <a href="http://www.dec.ny.gov/regulations/61794.html">http://www.dec.ny.gov/regulations/61794.html</a>

## 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 are:

benzo(a)anthracene indeno(1,2,3-CD)pyrene

benzo(a)pyrene lead
benzo(b)fluoranthene mercury
benzo(k)fluoranthene cis-1,2-DCE
chrysene benzene
dibenz[a,h]anthracene

The contaminants of concern exceed the applicable SCGs for:

- soil

-groundwater

## **6.2:** <u>Interim Remedial Measures</u>

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.

There were no IRMs performed at this site during the RI.

## **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.

Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, pesticides, hexavalent chromium, and the emerging contaminants per- and polyfluoroalkyl substances (PFAS), including perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and 1,4-dioxane. Soil vapor samples were analyzed for VOCs. Based on investigations conducted to date, the primary contaminants of concern include SVOCs and metals in soil, and VOCs in soil vapor.

Soil: A total of 32 soil borings were advanced until refusal was encountered at the top of bedrock, which ranged from 5 to 13 feet below grade; 68 subsurface soil samples were collected from these locations. One VOC, acetone, was detected in 11 soil samples. Acetone was detected slightly above, at 0.063 parts per million (ppm), the unrestricted use soil cleanup objective (USCO) of 0.05 ppm. Several SVOCs and metals were identified across the site and throughout the soil column at concentrations that exceeded their unrestricted use soil cleanup objectives (USCOs), including, but not limited to, the following: benzo(a)anthracene (maximum concentration of 22 ppm compared to the USCO of 1 ppm), benzo(a)pyrene (maximum concentration of 24 ppm compared to the USCO of 1 ppm), benzo(b)fluoranthene (maximum concentration of 26 ppm compared to the USCO of 1 ppm), benzo(k)fluoranthene (maximum concentration of 9.6 ppm compared to the USCO of 0.8 ppm), chrysene (maximum concentration of 21 ppm compared to the USCO of 1 ppm), dibenzo(a,h)anthracene (maximum concentration of 2.8 ppm compared to the USCO of 0.33 ppm), indeno(1,2,3-c,d)pyrene (maximum concentration of 11 ppm compared to the USCO of 0.5 ppm), lead (maximum concentration of 778 ppm compared to the USCO of 63 ppm) and mercury (maximum concentration of 1.4 ppm compared to the USCO of 0.18 ppm). Two emerging contaminates, PFOA and PFOS, were detected at concentrations above their respective guidance values for unrestricted use, 0.66 parts per billion (ppb) and 0.88 ppb, respectively. PFOA was detected at a maximum concentration of 1.14 ppb, PFOS at 6.08 ppb; these concentrations are below guidance values for residential use, 6.6 ppb and 8.8 ppb, respectively. Data does not indicate off-site soil impacts related to this site.

Groundwater: Three permanent groundwater monitoring wells were installed on-site and sampled. Two VOCs (benzene and cis-1,2-dichloroethylene [cis-1,2-DCE]), and six metals (total chromium, iron, lead, magnesium, manganese, and sodium) were detected at concentrations above their respective ambient water quality standards in each of the wells. Benzene was detected at a maximum concentration of 9.7 ppb compared to its standard of 1 ppb, and cis-1,2-DCE at 13 ppb compared to its standard of 5 ppb. Chromium was detected at a maximum concentration of 59.7 ppb compared to the 50 ppb standard, while lead was detected at a maximum concentration of 47.5 ppb compared to the 25 ppb standard. These compounds were detected in the total, unfiltered samples and not detected above standards in the dissolved, filtered samples. Chromium was not detected in the dissolved, filtered samples. Lead was detected in the dissolved, filtered samples at an estimated concentration of 0.26 ppb. The metals concentrations found in site groundwater are likely associated with entrained sediment in the sample, representative of typical urban

background conditions associated with the presence of historic fill or are naturally occurring and/or can be attributed to road salt application.

PFOA and PFOS were reported at concentrations up to 39.5 and 19.8 parts per trillion (ppt), respectively. While these concentrations exceed the 10 ppt Maximum Contaminant Level (MCL) for each compound, they are not indicative of a source area and are expected to be consistent with the concentrations coming onto the site, similar to other sites in New Rochelle that also contain no potential source. Data does not indicate off-site groundwater impacts related to this site.

Soil Vapor: Soil vapor samples were collected across the site. No indoor air samples were collected since the site is currently vacant. A number of VOCs were detected in soil vapor at concentrations up to 3,500 micrograms per cubic meter (µg/m³) (acetone). Solvent-related compounds were also detected, including 1,1,1-trichloroethane (1.8 µg/m³), cis-1,2-dichloroethylene (5.2 µg/m³), carbon tetrachloride (0.22 µg/m³), methylene chloride (16 µg/m³), trans-1,2-dichloroethene (0.72 µg/m³), PCE (38 µg/m³), and TCE (18 µg/m³), the maximum concentration of each compound given. Benzene and cis-1,2-dichloroethylene, the two VOCs also detected in groundwater above their ambient water quality standards, were detected up to 22 µg/m³ and 5.2 µg/m³, respectively. Since indoor air samples were not collected, the comparison of soil vapor results to the Soil Vapor/Indoor Air Matrix cannot be completed, however, based on the soil vapor results and the intended use, a post remediation soil vapor intrusion evaluation is required. There are no current exposure concerns since there are no buildings on-site. The complete excavation of soil down to bedrock across the entire site will remove any potentially impacted soil addressing the potential migration of soil vapor off-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*.

Access is restricted by a fence. However, people who enter may come into contact with contamination in soil by walking on the site, digging, or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. People will not come into direct contact with contaminated groundwater unless they dig below the ground surface. Volatile organic compounds in soil vapor (air spaces within the soil) may move into structures 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. Because there is no on-site building, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Further, based on environmental sampling and the planned removal of on-site contaminated soil, soil vapor intrusion is not a potential concern for off-site buildings and an evaluation is needed to confirm it is not a potential concern for future on-site buildings.

## 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.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

### **RAOs for Environmental Protection**

• Prevent migration of contaminants that would result in groundwater contamination.

### 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 Remedial Action Work Plan (RAWP). 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 Conditional Track 1 remedy.

The selected remedy is referred to as the Excavation remedy.

The elements of the selected remedy, as shown in Figure 2, 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.
- 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. Excavation

Excavation and off-site disposal of all on-site soils which exceed unrestricted use soil cleanup objectives (USCOs), as defined by 6 NYCRR Part 375-6.8. Approximately 22,500 cubic yards of contaminated soil will be removed down to bedrock from the site. Dewatering, including treatment, handling, transport, and off-site disposal, (if required), will be conducted in accordance with applicable local, state and federal regulations, as necessary, to enable the excavation activities.

## 3. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site, as necessary.

### 4. Vapor Intrusion Evaluation

As part of the Conditional Track 1 remedy, 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, if identified.

#### 5. Conditional Remedial Elements:

In the event that Track 1 unrestricted use is not achieved, including achievement of soil vapor remedial objectives, the following conditional remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup. Conditional remedial elements would include a Site Management Plan (SMP), Environmental Easement, and/or soil vapor mitigation (if necessary, as noted above).

#### A. Institutional Control

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 commercial 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 New York State Department of Health (NYSDOH); and
- require compliance with the Department approved Site Management Plan.

### B. Site Management Plan

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

1. 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:

Institutional Controls: The environmental easement noted above.

Engineering Controls: The vapor mitigation system discussed in item 4 above, if the results of the Vapor Intrusion Evaluation indicate this is necessary.

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;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including 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.
- 2. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
  - monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
  - a schedule of monitoring and frequency of submittals to the Department.
- 3. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
  - procedures for operating and maintaining the system(s) if a system is necessary based on the SVI evaluation outlined in item 4 above; and
  - compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.



