

# DECISION DOCUMENT

---

85 Jay Street (Brooklyn), LLC  
Brownfield Cleanup Program  
Brooklyn, Kings County  
Site No. C224248  
February 2018



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

---

85 Jay Street (Brooklyn), LLC  
Brownfield Cleanup Program  
Brooklyn, Kings County  
Site No. C224248  
December 2017

## **Statement of Purpose and Basis**

This document presents the remedy for the 85 Jay Street (Brooklyn), LLC 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 85 Jay Street (Brooklyn), LLC site and the public's input to the proposed remedy presented by the Department.

## **Description of Selected Remedy**

The selected remedy is a Track 1: Unrestricted use (Track 2: Restricted Residential Use, Contingent).

### **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; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

### **2. Excavation**

The site contains no structures to demolish. Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. This will include excavation of the historic fill layer in the upper 15 feet of the site.

If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy. It

is estimated that 72,000 cubic-yards of the soil is contaminated and will be removed to accomplish the Track 1 remedy. Contamination consists of various metals, primarily lead, along with numerous Semi-Volatile Organic Compounds (SVOC). Some of the soil may be treated to stabilize the lead prior to off-site disposal. An additional 96,000 cubic-yards will be removed to accommodate the proposed redevelopment project.

### 3. Backfill

On-site soil which does not exceed the above excavation criteria may be used to backfill the excavation. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) may be brought in to replace the excavated soil and establish the designed grades at the site.

### 4. Vapor Intrusion Evaluation

As part of the 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.

### Contingent Remedy

The intent of the remedy is to achieve Track 1 unrestricted use, therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report and/or it's determined that post-excavation groundwater treatment is necessary, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and/or implement other actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

If no EE or SMP is needed to achieve soil or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code that prohibits potable use of groundwater without prior approval.

In the event that Track 1 unrestricted use is not achieved, including the achievement of groundwater and soil vapor remedial objectives, the contingent remedial elements discussed below will be required and the remedy will achieve a Track 2 restricted residential cleanup. If all soil above 15 feet or bedrock meets the SCOs for restricted residential use, then a Track 2 remedy will be achieved and no cover system will be required.

### 5. 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 NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

6. 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:

- Institutional Controls: The Environmental Easement discussed above.

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;
  - 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:
- 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.

2/9/2018  
 \_\_\_\_\_  
 Date

*Eric R. Obrecht*  
 \_\_\_\_\_  
 Eric R. Obrecht, P.E., Director  
 Remedial Bureau A

# DECISION DOCUMENT

85 Jay Street (Brooklyn), LLC  
Brooklyn, Kings County  
Site No. C224248  
November 2017

---

## **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 repositories:

Brooklyn Public Library  
Walt Whitman Branch  
93 Saint Edwards Street  
Brooklyn, NY 11205  
Phone: (718) 935-0244

Brooklyn Community Board District 2  
8th floor  
350 Jay Street  
Brooklyn, NY 11201  
Phone: (718) 596-5410

## **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 85 Jay Street (Brooklyn) LLC Site is located in an urban area in the Dumbo neighborhood of Brooklyn. Although the neighborhood was formerly characterized by manufacturing and warehouses, the area is transitioning into a residential and commercial district. The approximately 135,000-square foot site occupies an entire city block and is currently being used as a private parking lot, fully enclosed in metal fencing. The site is bounded to the north by Front Street, to the east by Bridge Street, to the south by York Street, and to the west by Jay Street.

**Site Features:** The site currently consists of a gravel parking lot enclosed in fencing. No buildings are present. Surface topography slopes downward toward the northwest, resulting in an approximately 20-foot grade change across the site.

**Current Zoning and Land Use:** The current zoning designation for the site is M1-2/R6 (light manufacturing and residential) and the site is in the Special Mixed Use District MX-2. The Special Mixed Use District was established to encourage investment in existing neighborhoods with mixed residential and industrial uses. The proposed use is consistent with the existing zoning for the site. The site is not an e-designated property.

**Past Use of the Site:** Historic records indicate that the site was developed with industrial and manufacturing uses by at least 1887. The Bradley White Lead Company and/or Lenox Smelting occupied the site between 1887 and 1989. Additionally, an electrical substation occupied the western portion of the site from circa 1904 to 1950. A brewery, a paper goods company, and an electrical repair company also historically occupied the site. The buildings were subsequently demolished by 1996 and the site has since been used as a private parking lot and for construction materials storage.

**Site Geology and Hydrogeology:** Due to the sloping elevation across the site, groundwater was encountered during the investigation at depths ranging from approximately 24 to 40 feet below grade (bgs) on the western and eastern portions of the Site, respectively. Groundwater flow is in a WNW-direction beneath the site and surrounding area, toward the East River. The stratigraphy of the site, from the surface downward, generally consists of fill comprising sand, silt, gravel, cinders, concrete, and brick down to approximately 15 feet bgs, underlain by apparent native sand with varying amounts of gravel and silt up to the maximum boring termination depth of 40

feet bgs. Bedrock was not encountered during the investigation.

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, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the Remedial Investigation (RI) against unrestricted use standards, criteria and guidance values (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:

- air
- 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 contaminant(s) of concern identified at this site is/are:

lead	benzo[k]fluoranthene
arsenic	chrysene
barium	dibenz[a,h]anthracene
cadmium	indeno(1,2,3-CD)pyrene
chromium	naphthalene
mercury	magnesium
copper	manganese
benzo(a)anthracene	selenium
benzo(a)pyrene	sodium
benzo(b)fluoranthene	chloroform

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.

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.

The primary contaminants of concern (COC) are heavy metals and polycyclic aromatic hydrocarbons (PAHs), located primarily in the top fifteen feet of soil with isolated exceedences of SCGs down to 30 feet below ground surface (bgs). Most of this contamination resides in a historic fill layer extending to 15-20 feet bgs.

#### **Soil Results:**

Three hundred and forty-seven soil samples were collected for chemical analysis from 60 soil boring locations across the site. Samples were collected from the surface as well as at 5-foot intervals (0-5 feet, 5-10 feet, 10-15 feet, 15-20 feet, 20-25 feet and 25-30 feet), to a final depth of 30 feet bgs. Soil samples were analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), metals, pesticides and polychlorinated biphenyls (PCBs). Numerous SVOCs were detected in soil above their respective NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCO) as well as their Restricted Residential Soil Cleanup Objectives (RRSCOs). The SVOCs detected primarily included polycyclic aromatic hydrocarbons (PAHs) that are commonly found in fill material, including: benzo(A)anthracene at a maximum concentration of 170 parts per million (170 ppm) while its UUSCO is 1 ppm, benzo(A)pyrene at up to 130 ppm (UUSCO is 1 ppm), benzo(B)fluoranthene at up to 150 ppm (UUSCO is 1 ppm), benzo(K)fluoranthene at up to 63 ppm (UUSCO is 0.8 ppm), chrysene at up to 160 ppm (UUSCO is 1 ppm), dibenz(A,H)anthracene at up to 34 ppm (UUSCO is 0.33 ppm) and indeno(1,2,3-C,D)pyrene at up to 130 ppm (UUSCO is 0.5). SVOC concentrations exceeding UUSCOs were generally typical of historical fill material. Some samples with higher levels of SVOC may be associated with historic Site operations.

Lead was detected at levels exceeding UUSCOs in numerous samples and depths, with a max concentration of 10,000 ppm in one soil boring. Waste characterization sampling conducted in August 2017 identified exceedences of the hazardous waste threshold for Toxicity Characteristic Leaching Procedure (TCLP) lead in 47 of 226 samples. The TCLP hazardous threshold exceedences for lead were primarily in the shallow (0 to 8 foot) interval in the central and western portions of the site with sporadic exceedences at depths up to 32 feet in the western portion of the site,

PCBs were detected above unrestricted use SCOs (UUSCO) in one sample during a 2012 investigation. However, no PCBs were detected above UUSCO in the 2017 remedial investigation. Several pesticides were detected at levels above UUSCOs: 4,4'-DDE at up to 0.073 ppm (UUSCO is 0.0033 ppm), 4,4'-DDT at up to 0.043 ppm (UUSCO is 0.0033 ppm) and aldrin at up to 0.012 ppm (UUSCO is 0.005 ppm).

No VOCs were detected in soil samples above UUSCOs.

Figures 3A-3D illustrate soil contamination with depth across the site. While the soil contamination is not believed to be migrating off-site, contaminated historic fill is likely present throughout the area.

#### Groundwater Results:

Groundwater samples from seven profile wells across the site were analyzed for VOC, SVOC, metals and PCBs.

Three VOCs- chloroform, tetrachloroethene (PCE), and trichloroethylene (TCE)- were detected in six of the seven groundwater samples and the blind duplicate sample. Chloroform was detected at up to 18 parts per billion (ppb), slightly above its SCG of 7 ppb. PCE and TCE were detected below their respective SCGs of 5 ppb. Two SVOCs, diethyl phthalate and bis(2-ethylhexyl) phthalate were detected at well below SGCs. PCBs were not detected in any groundwater samples.

Fifteen metals were detected in groundwater. Lead was detected at up to 48.5 ppb, exceeding its groundwater standard of 25 ppb in one sample. Manganese, selenium, sodium and magnesium exceeded SCGs in numerous samples, but the levels are consistent with regional groundwater background conditions. None of the COCs in groundwater appear to be leaving the site.

#### Soil Vapor Results:

Seven soil vapor samples were collected from the seven temporary soil vapor points installed across the Site. In addition, one outdoor (ambient) air sample was collected to assess background conditions.

Twenty-five VOCs were detected in the soil vapor samples, seven of which were also detected in the outdoor air sample. Additionally, one VOC, chloromethane, was detected in outdoor air but not in any of the soil vapor samples.

VOCs associated with petroleum (including toluene, ethylbenzene, benzene, and xylenes [collectively referred to as BTEX]; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; 2-hexanone; methyl ethyl-ketone; n-heptane; and n-hexane) were detected at individual concentrations up to 1,200 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Chlorinated solvent-related VOCs were detected at the following maximum concentrations: carbon tetrachloride at  $34 \mu\text{g}/\text{m}^3$ , 1,1,1-trichloroethane at  $76 \mu\text{g}/\text{m}^3$ , PCE at  $140 \mu\text{g}/\text{m}^3$ , and TCE at  $410 \mu\text{g}/\text{m}^3$ . None of the COCs in soil vapor appear to be leaving 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 may come into contact with contaminants in soils if they dig below the surface. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in soil vapor (air

spaces within the soil) 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. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern. The potential exists for the inhalation of site contaminants due to soil vapor intrusion in any future buildings developed on the site. Environmental sampling indicates that soil vapor intrusion is not a concern for off-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 or surface water 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 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 referred to as the Track 1 Unrestricted Use (Track 2 Restricted Residential Use, Contingent) 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; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

#### 2. Excavation

The site contains no structures to demolish. Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. This will include excavation of the historic fill layer in the upper 15 feet of the site.

If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy. It is estimated that 72,000 cubic-yards of the soil is contaminated and will be removed to accomplish the Track 1 remedy. Contamination consists of various metals, primarily lead, along with numerous Semi-Volatile Organic Compounds (SVOC). Some of the soil may require treatment to stabilize the lead prior to off-site disposal. An additional 96,000 cubic-yards will be removed to accommodate the proposed redevelopment project.

#### 3. Backfill

On-site soil which does not exceed the above excavation criteria may be used to backfill the excavation. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) may be brought in to replace the excavated soil and establish the designed grades at the site.

#### 4. Vapor Intrusion Evaluation

As part of the 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.

#### Contingent Remedy

The intent of the remedy is to achieve Track 1 unrestricted use, therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report and/or it's determined that

post-excavation groundwater treatment is necessary, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and/or implement other actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

If no EE or SMP is needed to achieve soil or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code that prohibits potable use of groundwater without prior approval.

In the event that Track 1 unrestricted use is not achieved, including the achievement of groundwater and soil vapor remedial objectives, the contingent remedial elements discussed below will be required and the remedy will achieve a Track 2 restricted residential cleanup. If all soil above 15 feet or bedrock meets the SCOs for restricted residential use, then a Track 2 remedy will be achieved and no cover system will be required.

## 5. 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 NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

## 6. 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:

- Institutional Controls: The Environmental Easement discussed above.

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;
- 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:
  - a schedule of monitoring and frequency of submittals to the Department.