

# DECISION DOCUMENT

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125 Main Street Site  
Brownfield Cleanup Program  
Buffalo, Erie County  
Site No. C915262  
October 2013



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

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125 Main Street Site  
Brownfield Cleanup Program  
Buffalo, Erie County  
Site No. C915262  
October 2013

## **Statement of Purpose and Basis**

This document presents the remedy for the 125 Main Street 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 125 Main Street Site 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. A site cover would be required to allow for restricted residential use of the site. The cover would consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it would be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover would be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site would meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

2. Imposition of an institutional control in the form of an environmental easement would be required for the controlled property that:

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

3. A Site Management Plan would be required, which includes, but not limited to, the following:
- an Institutional and Engineering Control Plan that identifies all use restrictions for the site noted above and details the steps necessary to ensure the following controls remain in place and effective;
  - an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
  - a Monitoring Plan to assess the performance and effectiveness of the site cover;
  - 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.

### **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.

10/28/2013  
\_\_\_\_\_  
Date

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Michael Cruden, Director  
Remedial Bureau E

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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:

Buffalo and Erie County Public Library  
Attn: Mary Jean Jakubowski  
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, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

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

**Location:** The site is located in the historic canal district of the City of Buffalo, Erie County, New York. The site is bound by an active, depressed railroad track and elevated section of Interstate 190 to the north; Scott Street to the south; Washington Street to the east; and Main Street to the west. The site is located in a predominantly commercial area of the City of Buffalo. The nearest residential development is located approximately 0.15-miles to the west of the site.

The site is comprised of two separate parcels, identified as parcels D1 and D2. Parcel D1 is the main development parcel and is approximately 1.61 acres. Parcel D2 is approximately 0.21 acres and is located south of D1 along Scott Street. Parcel D3, that separates parcels D1 and D2, is not part of the BCP site.

**Site Features:** The property was previously owned and operated by the New York State Office of General Services (NYSOGS) and consists of an eight story office building. Asphalt parking areas cover most of the remaining site. The site is generally flat but drops several feet in elevation from north to south. The Hamburg Canal once transected the southern half of the site; the Hamburg Drain, a large combined sewer, is located within the backfilled canal.

**Current Zoning Use:** Currently the site is occupied by a vacant structure that is being re-developed into an office and retail building. The property is located in district of the local zoning map labeled as Institutional/Light industrial; in accordance with the zoning ordinances, residential uses would also be permitted in this district.

**Past Use of the Site:** The site was once occupied by commercial storefronts, a restaurant, a junk yard, a contractor's yard, the American Bit Brace Factory, a machine shop, the Cooper and Sibley Paper Box factory, a boot and shoe manufacturer, a tin shop, a paint shop, a patent medicine manufacturer, and a wire works. Quay Street once ran east and west through the central area of the site, parallel to the Hamburg Canal. The Lehigh Valley Railroad passenger terminal was once located in the southern end of the site, atop the Hamburg Canal which had been backfilled between 1899 and 1925. The office building was constructed in 1960, with three underground storage tanks (USTs) installed beneath the paved parking areas for gasoline, diesel and fuel oil. The three USTs were removed and successfully remediated in 2008. Prior uses that appear to have led to site contamination include machining and painting operations that occurred on site and the storage and use of petroleum and other fossil fuels.

**Site Geology and Hydrology:** The general site stratigraphy consists of fill materials overlying native sands, overlying bedrock.

In the northern portion of the site, the uppermost unit consists of light gray, crushed slag, in a layer approximately 9 feet thick which fades out near the south end of the site.

In the southern half of the site and underlying a layer of slag in the northern half, there is a thick fill layer consisting of dark brown to dark gray to red-brown fine sand containing varying amounts of slag, ash, cinders, brick, coal fragments, and wood/organic material. This fill layer ranges in thickness from about 8 to 19 feet. Underlying the fill material is a thin layer of dark brown, sand/silty sand with a trace of fine gravel. The sand is discontinuous across the site and ranges in thickness from 0 to 6 feet. Beneath the sand/silty sand, and in some areas the fill material, is a dark brown to dark gray-black clayey silt/sandy silt. The clayey silt/sandy silt appears to be continuous across the site and averages about 4 feet in thickness. Underlying the clayey silt is a light brown to tan to gray native sand layer that averages about 26 feet in thickness. This unit is also continuous across the site.

Bedrock was encountered at the site at a depth of 51 feet and consists of light gray, limestone/dolostone.

Groundwater was encountered at depths varying from approximately 12 to 19 feet. Groundwater flows to the southwest.

A site location map is attached as Figure 1.

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

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to 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(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do 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

#### **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:

BENZO(B)FLUORANTHENE	ARSENIC
BENZO(A)PYRENE	BERYLLIUM
BENZ(A)ANTHRACENE	CHROMIUM
DIBENZ[A,H]ANTHRACENE	LEAD

## MERCURY

## THALLIUM

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 IRM(s) has/have been completed at this site based on conditions observed during the RI.

#### **Soil Excavation**

In April 2012, the partial demolition of the vacant office building began. The asphalt and concrete pavement surrounding the existing office building was removed. A small garage/storage building located in the northeast corner of the site was demolished. Sheet pile was driven along the northwest and northeast perimeter of the site where the IRM excavation would be the deepest. The northern perimeter of the site is bounded by an existing stone abutment to the depressed railroad track.

In January 2013, approximately 18,000 tons of contaminated, non-hazardous soil/fill was excavated from Parcel D1 immediately adjacent to the office building's north and east sides. The excavation was sloped from the ground surface on the east side of the building to a design depth of approximately 12 feet on the north side of the building. A total of 38 post-excavation soil/fill samples were collected from the floor and walls (those areas where there was no sheet pile) and tested for SVOCs and metals.

Over-excavation of some areas of the floor was required as initial post-excavation analytical results indicated significant exceedances of commercial SCOs. These locations were over-excavated a minimum of six inches and the floor re-sampled. All postexcavation soil sample results were below commercial SCOs, with minor exceptions.

The IRM excavation area is to be completed as an above and below ground parking structure.

### **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

Based upon investigations conducted to date, the primary contaminants of concern include semi-volatile organic compounds (SVOCs) and metals.

Most samples analyzed for SVOCs during the remedial investigation were reported as non-detectable or at trace (estimated) concentrations below the laboratory sample quantitation limit. Five sample locations, outside the limits of the IRM excavation, had SVOC concentrations above Restricted Residential SCOs. However, two of the five locations were within the excluded Parcel D3. One of the five locations was a composite sample of surface soils (SS-1) collected from the small grass-covered area along the site's southwest perimeter. The SVOCs exceeding the Restricted Residential SCOs are the carcinogenic polycyclic aromatic hydrocarbons (cPAHs): benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene and dibenzo(a,h) anthracene. The concentrations in excess of the Restricted Residential SCOs (0.33 and 1 ppm) ranged from 0.67 to 11 ppm. The only other SVOCs found at concentrations exceeding Restricted Residential SCOs were other cPAHs: benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene. The Restricted Residential SCOs for benzo(k)fluoranthene and indeno(1,2,3-c,d)pyrene are the same as their respective Unrestricted SCOs (1 and 0.5 ppm).

The majority of samples analyzed for inorganic compounds (metals) during the RI were reported as non-detectable or at trace (estimated) concentrations below the laboratory sample quantitation limit. Lead, manganese, and mercury were detected above their respective Restricted Residential SCOs in a total of eight samples. One of the eight samples was collected from the excluded parcel D3 and another was within the IRM excavation area, at a depth that was later excavated. Beyond the limits of the IRM excavation, the concentrations of lead exceeding the Restricted Residential SCO of 400 ppm were detected in two of the six remaining samples at concentrations of 510 ppm and 690 ppm. Concentrations of manganese exceeding the Restricted Residential SCO of 2,000 ppm were detected in three samples ranging from 2,300 ppm to 3,100 ppm. Concentrations of mercury exceeding the Restricted Residential SCO of 0.81 ppm were detected in two samples at concentrations of 1.1 ppm and 2.5 ppm.

The majority of the remedial investigation soil/fill samples analyzed for volatile organic compounds (VOCs) were also reported as non-detectable or at trace concentrations. No VOCs were detected above Part 375 Commercial SCOs. Acetone and methylene chloride were the only two VOCs detected at concentrations exceeding the unrestricted SCOs. In four samples, from three locations, acetone was found at concentrations of 0.058 to 0.09 parts per billion (ppb). Methylene chloride was found in just one sample at 0.37 ppb. The SCO for both contaminants is 0.05 ppb.

PCBs, pesticides, and herbicides were reported as either non-detectable or below Unrestricted Use SCOs, with the exception of one pesticide, chlordane, which was detected above the Unrestricted Use SCO at just one location, SS-1.

A total of fifty post-excavation confirmatory soil samples were collected from the sidewalls and floors of the IRM excavation. Twenty-four of these samples exhibited concentrations of one or more SVOCs exceeding applicable Commercial Use SCOs. Twelve of these samples exhibited

concentrations of one or more SVOC exceeding applicable Restricted Residential SCOs. Six of these samples exhibited concentrations of one or more SVOC exceeding applicable Unrestricted Use SCOs. The remaining eight samples met the Unrestricted Use SCOs for both SVOCs and metals.

For post-excavation confirmatory samples that exceeded Restricted Residential and/or Commercial Use SCOs, contaminant concentrations were relatively consistent across all sampling locations. One sample however, exhibited a lead concentration of 4,500 mg/kg. The Restricted Residential and Commercial Use SCOs for Lead are 400 and 1,000 mg/kg respectively. Lead concentrations at all other sample locations within the IRM excavation area range from 4 mg/kg to 1,100 mg/kg.

One VOC (1,2-dichloroethane) was detected at one location at a concentration slightly above the groundwater standards but it was not detected when the monitoring well was resampled and tested. The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno[1,2,3-cd]pyrene were detected slightly above groundwater standards in just one monitoring well. However, subsequent sampling of a replacement well at that location resulted in non-detection of all SVOCs analyzed. Pesticides, herbicides, and PCBs were reported as non-detectable or below groundwater standards.

Lead concentrations exceeded the 25 ppb groundwater standard in one of the four wells sampled in the latest subsequent round, at a concentration of 32.8 ppb. Iron, magnesium, manganese, and sodium were detected above groundwater standards. However, these metals are commonly encountered in uncontaminated, natural environments and do not appear to be associated with the overlying soil/fill on the site.

In response to a comment received during the public review of the Proposed Decision Document, a radiological survey of the site was conducted. Readings from the surface of the site were within or near the background range.

#### Special Resources Impacted/Threatened:

The Site is a commercial facility located within a highly developed, urban area in the City of Buffalo. As such, no unacceptable ecological risks are anticipated under the current or reasonably anticipated future use scenario.

It has been determined that this site does not pose a significant threat to human health or the environment.

#### **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*.

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. Contaminated groundwater at the site is not used for drinking or

other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination.

## **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.

### **Soil**

#### **RAOs for Public Health Protection**

- Prevent ingestion/direct contact with contaminated soil.

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

1. A site cover would be required to allow for restricted residential use of the site. The cover would consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it would be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover would be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site would meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

2. Imposition of an institutional control in the form of an environmental easement would be required for the controlled property that:

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

3. A Site Management Plan would be required, which includes, but not limited to, the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions for the site noted above and details the steps necessary to ensure the following controls remain in place and effective;
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- a Monitoring Plan to assess the performance and effectiveness of the site cover;
- 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.





