

# DECISION DOCUMENT

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310 Ship Canal Site  
Brownfield Cleanup Program  
Buffalo, Erie County  
Site No. C915322  
December 2022



**Department of  
Environmental  
Conservation**

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

# DECLARATION STATEMENT - DECISION DOCUMENT

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310 Ship Canal Site  
Brownfield Cleanup Program  
Buffalo, Erie County  
Site No. C915322  
December 2022

## **Statement of Purpose and Basis**

This document presents the remedy for the 310 Ship Canal Site 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 310 Ship Canal 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;
- 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 vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Cover system:

A site cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will 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 will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Vapor Mitigation:

The site will install an active sub-slab depressurization system (SSDS) in any future buildings onsite to adequately mitigate the migration of radon vapors from the slag which will remain onsite.

4. Environmental Easement:

The remedy will achieve a Track 4 commercial cleanup at a minimum and will include an environmental easement and site management plan as described below.

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 or industrial 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.

5. Site Management Plan (SMP)

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

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

- o Institutional Controls: The environmental easement discussed in remedial element 4 above.
- o Engineering Controls: the site cover discussed in remedial element 2 above, and the SSDS discussed in remedial element 3 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;
- descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable SCOs
- 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 engineering controls.
- A monitoring plan to assess the performance and effectiveness of the remedy. The plan includes but not be limited to:
  - o monitoring of the site's engineering controls (i.e. SSDS);
  - o monitoring for radon emissions within any new buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
  - o a schedule of monitoring and frequency of submittals to the Department.
  - o an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy.

The plan includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

### **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.

*Michael Cruden*

12/12/2023

Date

Michael Cruden, Director  
Remedial Bureau E

# DECISION DOCUMENT

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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, radiological 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, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

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=C915322>

Dudley Branch Library  
2010 South Park Avenue  
Buffalo, NY 14220  
Phone: (716) 823-1854

## **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 310 Ship Canal site is an approximately 5.11-acre site located in an industrial and commercial area at 310 Ship Canal Parkway in the City of Buffalo, Erie County. The site is a portion of a 10.84-acre parcel. The site is bound by a vacant parcel addressed as 70 Laborers Way to the west, a wetland area on the larger parcel to the north, Ship Canal Parkway and Sonwil Distribution beyond to the east and a currently vacant BCP site at 24 Laborers Way (C915385).

**Site Features:** The site is vacant land with a drainage ditch along the western property limit. The vegetation has been cleared and some grading has been completed onsite.

**Current Zoning and Land Use:** The site is currently vacant and is zoned for light industrial and commercial uses. The surrounding properties are currently used for a combination of commercial, light industrial, and utility rights-of-way. The nearest residential area is 0.8 miles east of the site.

**Past Uses of the Site:** The site was used from the mid-1920s through early 2000 for slag dumping and as a railroad corridor.

**Site Geology and Hydrogeology:** Geological conditions at the site are generally characterized as man-made slag fill materials overlying peat and silty clay. The fill material primarily consists of slag at depths from ground surface to about 15 to 16 feet below ground surface (fbgs). Six monitoring wells were installed on-site and groundwater was encountered from 9 to approximately 13.5 fbgs. Groundwater beneath the site generally flows west towards Lake Erie, however, local groundwater flow also appears to split across the site. On the northern half of the site, groundwater appears to flow to the northwest towards the nearby wetland; while on the southern half of the site, groundwater flows south towards the Ship Canal.

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, alternative that restricts the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) 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

#### **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 are:

arsenic	cyanides (soluble cyanide salts)
barium	radiological material (TENORM)

The contaminants of concern exceed the applicable SCGs for:

- soil
- soil vapor

### **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.

Nature and Extent of Contamination:

The RI for the site was initially performed in 2018 and included sampling of surface soil, subsurface soil/fill, native soil, and groundwater. Due to the 2018 RI not fully characterizing the site a supplemental investigation was performed in 2022. This supplemental investigation included sampling of surface, subsurface soil/fill, and groundwater.

The data collected during the RI identified metals above Commercial Soil Cleanup Objectives (CSCOs) for soil and NYS Groundwater Quality Standards (GWQS) for groundwater.

#### Surface Soils:

Nine surface samples, obtained from 0 to 2 feet below ground surface (fbgs), were collected across the site and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, pesticides, polychlorinated biphenyls (PCBs), emerging contaminants (PFAS and 1,4-dioxane) and pH. No VOCs, SVOCs, pesticides, PCBs, or emerging contaminants exceeded applicable CSCOs.

Metals detected in surface soil included arsenic up to 18.6 parts per million (ppm) (CSCO 16 ppm), barium up to 495 ppm (CSCO 400 ppm), and total cyanide up to 30.2 ppm (CSCO 27 ppm). pH varied in surface samples from 8.3 to 11.6.

A radiological survey and sampling that focused on the upper two feet of soils determined technologically enhanced naturally occurring radiological material (TENORM), typical of slag material, was present onsite. Soil sample results indicated TENORM with concentrations of radium-226 ranging from 13.376 to 17.221 picocuries per gram (pCi/g).

#### Subsurface Soils:

Eleven subsurface samples, obtained from 2 to 16 fbgs, were collected across the site and analyzed for VOCs, SVOCs, metals, pesticides, PCBs, emerging contaminants and pH. No VOCs, SVOCs, pesticides, PCBs, or emerging contaminants exceeded applicable CSCOs.

Metals detected in subsurface soil included arsenic up to 41.6 ppm (CSCO 16 ppm), barium up to 639 ppm (CSCO 400 ppm), and total cyanide up to 31 ppm (CSCO 27 ppm). pH varied in subsurface samples from 7.4 to 12.3.

#### Native Soils:

Ten native soil samples, obtained from 13 to 20 fbgs, were collected across the site and analyzed for VOCs, SVOCs, metals, pesticides, PCBs, and pH. No VOCs, SVOCs, metals, pesticides, or PCBs exceeded applicable CSCOs. pH varied in native soil samples from 7.4 to 8.3.

#### Groundwater:

Eight groundwater samples were obtained throughout the site and analyzed for VOCs, SVOCs, metals, pesticides, PCBs, emerging contaminants, and pH. No VOCs, herbicides/pesticides, PCBs, or emerging contaminants exceeded GWQS. Groundwater pH appeared relatively consistent in all samples and varied from 12 to 12.3.

SVOCs detected in groundwater include pentachlorophenol up to 2.4 parts per billion (ppb) (GWQS 1 ppb). Pentachlorophenol did not exceed the GWQS significantly, therefore, is not considered a contaminant of concern for this site.

Metals detected in groundwater included iron up to 450 ppb (GWQS 300 ppb), sodium up to 250,000 ppb (GWQS 2,000 ppb), and selenium up to 20 ppb (GWQS 10 ppb). These metals are naturally occurring minerals and are not considered contaminants of concern for this 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*.

The site is currently vacant and undeveloped. Access to the site is unrestricted. However, contact with contaminated soil is unlikely unless people dig below the ground surface. Groundwater at this site is not used for drinking or other purposes. Volatile organic compounds in the groundwater 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 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 (radon) does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants (radon) 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:

##### **Soil**

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

- Prevent ingestion/direct contact with contaminated soil.

###### **RAOs for Environmental Protection**

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

##### **Soil Vapor**

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

- Prevent exposure to radon emissions from radiological materials (TENORM) in 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 selected remedy is referred to as the Track 4 - Cover and Sub-slab Depressurization System Alternative 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;
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- 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 vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

### 2. Cover system:

A site cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot

of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will 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 will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Vapor Mitigation:

The site will install an active sub-slab depressurization system (SSDS) in any future buildings onsite to adequately mitigate the migration of radon vapors from the slag which will remain onsite.

4. Environmental Easement:

The remedy will achieve a Track 4 commercial cleanup at a minimum and will include an environmental easement and site management plan as described below.

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 or industrial 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.

5. Site Management Plan (SMP)

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

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
  - o Institutional Controls: The environmental easement discussed in remedial element 4 above.
  - o Engineering Controls: the site cover discussed in remedial element 2 above, and the SSDS discussed in remedial element 3 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;

- descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable SCOs
- 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 engineering controls.
- A monitoring plan to assess the performance and effectiveness of the remedy. The plan includes but not be limited to:
  - o monitoring of the site's engineering controls (i.e. SSDS);
  - o monitoring for radon emissions within any new buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
  - o a schedule of monitoring and frequency of submittals to the Department.
  - o an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
    - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
    - maintaining site access controls and Department notification; and
    - providing the Department access to the site and O&M records.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

**Figure 1 – Site Location Map**

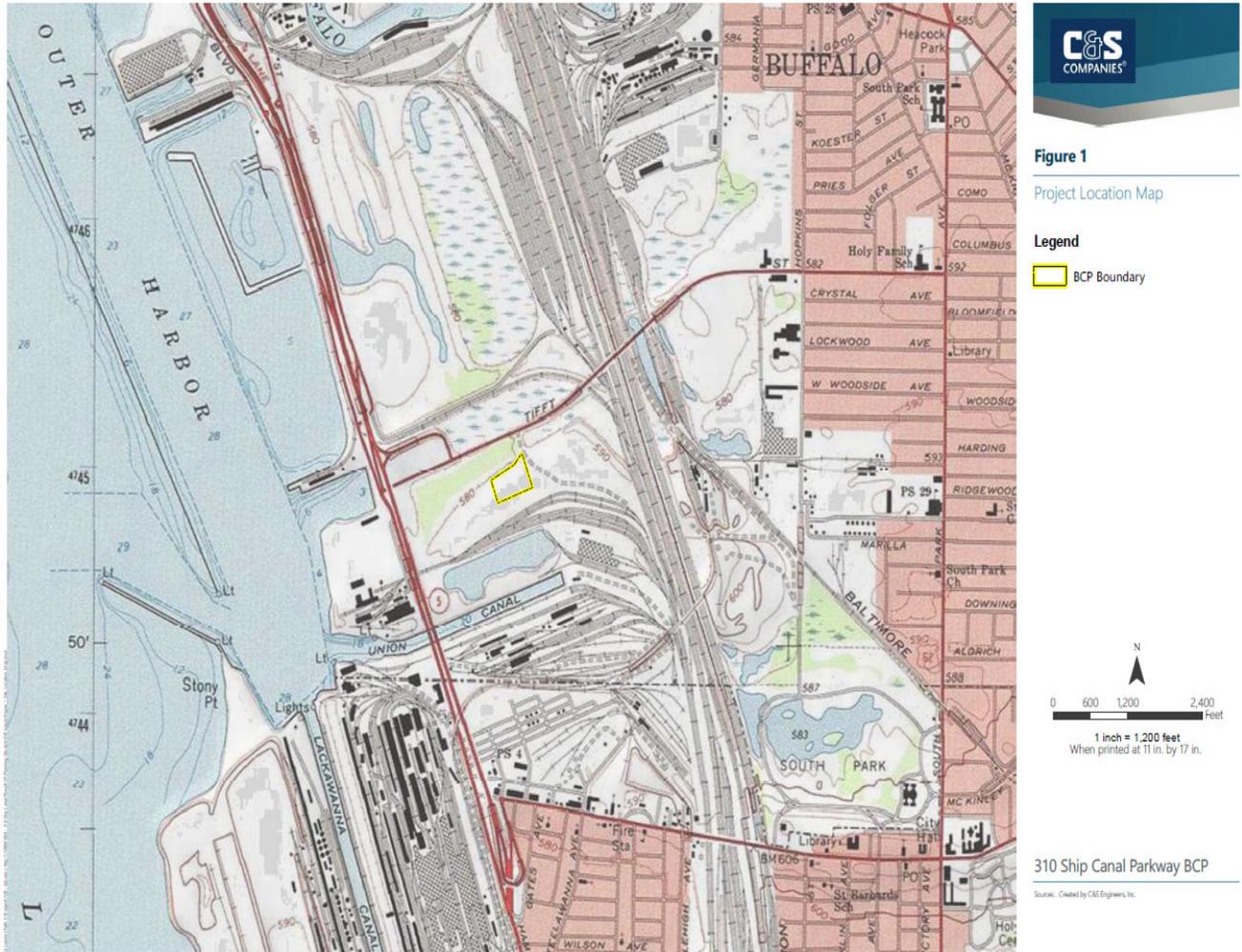


Figure 2 – Selected Remedy



Figure 6

Site-Wide Cover System Map

Legend

BCP Boundary

Cover Types

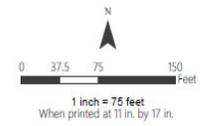
Building Slab

Asphalt

Concrete

Soil Cover/Landscape (minimum one-foot)

Bioretention Area (one-foot soil cover)



310 Ship Canal Parkway BCP

Source: Created by C&S Engineers, Inc.