SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing 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 proposed by this Proposed Decision Document (PDD). The disposal or release of contaminants at this site, as more fully described in Section 6 of 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 Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York; (6 NYCRR) Part 375. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified below.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all Proposed Decision Documents. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the reports and documents, which are available at the following repository:

Buffalo and Erie County Public Library
Attn: Mary Jean Jakubowski
1 Lafayette Square
Buffalo, NY 14203
Phone: 716-858-8900

A public comment period has been set from:

7/26/2013 to 9/9/2013
Written comments may be sent through 9/6/2013 to:

David Locey  
NYS Department of Environmental Conservation  
Division of Environmental Remediation  
270 Michigan Ave  
Buffalo, NY 14203-2915  
dplocey@gw.dec.state.ny.us

The proposed remedy may be modified based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein.

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 0.32 acres and is located south of D1 along Scott Street.

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 a 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) are/is being evaluated in addition to an alternative which would allow for unrestricted use of the site.
A comparison of the results of the investigation 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 Remedial Investigation (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
- BENZO(A)PYRENE
- BENZ(A)ANTHRACENE
- DIBENZ[A,H]ANTHRACENE
- ARSENIC
- BERYLLIUM
- CHROMIUM
- 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. The contaminants were found in both of the parcels that comprise the site and at similar concentrations.

The majority of soil/fill samples analyzed for SVOCs were reported as non-detectable or at trace concentrations. Five of the twenty two soil/fill samples analyzed had SVOCs at concentrations above the commercial SCOs and generally the exceedance was considered slight to moderate. All of these SVOCs were of a specific subgroup known as polycyclic aromatic hydrocarbons (PAHs). Dibenzo(a,h)anthracene was found in three samples, at concentrations of 0.67 to 1.8 parts per million (ppm) exceeding soil cleanup objective (SCO) for commercial site use of 0.56 ppm. Benzo(b)fluoranthene was found in two samples at concentrations of 5.7 and 6.1 ppm exceeding it’s commercial SCO of 5.6 ppm. Benzo(a)pyrene was found in all five soil/fill samples at concentrations found ranging from 1.1 to 8.6 ppm exceeding the commercial SCO of 1 ppm. Benzo(a)anthracene was found in one sample at a concentration of 11 ppm, above its commercial SCO of 5.6 ppm. PAHs are often associated with the burning of fossil fuels and are frequently found in urban environments. Ash, cinders and coal fragments were reported in nearly all soil borings.

The majority of samples analyzed for inorganic compounds (metals) were reported as non-detectable or at trace (estimated) concentrations below the laboratory sample quantitation limit. No metals were detected during the RI above commercial SCOs. Most of the samples did however contain one or more metals at concentrations exceeding SCOs for unrestricted site use. Lead, mercury and manganese were the metals most frequently encountered above their unrestricted SCOs. Lead was found at concentrations of 80 to 690 ppm exceeding its unrestricted SCO of 63 ppm. The concentrations of mercury measured above its 0.18 ppm
unrestricted SCO ranged from 0.24 to 1.1 ppm. Manganese was found at concentrations of 1,700 to 4,500 ppm exceeding its unrestricted SCO of 1,600 ppm.

The majority of 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. SS-1 was a composite of three surface soil samples collected from a narrow strip of the only portion of the site not covered by pavement.

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 ppm. 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.

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 PROPOSED REMEDY

The alternatives developed for the site and 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 remedy proposed is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The elements of the proposed 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.