DECISION DOCUMENT

399 Exterior Street Site Brownfield Cleanup Program Bronx, Bronx County Site No. C203139 July 2021



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

DECLARATION STATEMENT - DECISION DOCUMENT

399 Exterior Street Site Brownfield Cleanup Program Bronx, Bronx County Site No. C203139 July 2021

Statement of Purpose and Basis

This document presents the remedy for the 399 Exterior 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 399 Exterior 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. 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 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy

efficiency as an element of construction.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards; and
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Excavation and off-site disposal of all on-site soils which exceed restricted-residential SCOs, as defined by 6 NYCRR Part 375-6.8 for Track 2, in the upper 15 feet. If a Track 2 - restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Approximately 21,000 cubic yards of contaminated soil will be removed from the site to an estimated depth of 8-20 feet.

3. Groundwater Extraction & Treatment

Groundwater extraction and treatment will be implemented to treat contaminants in groundwater during the excavation phase of remediation. The groundwater extraction system will be designed and installed so that the capture zone is sufficient to cover the areal and vertical extent of the entire site. The extracted groundwater will be treated and discharged to the Harlem River under a Department-issued SPDES permit. The method of the groundwater treatment will be determined by the Department and NYSDOH during the remedial design.

Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 2 restricted residential cleanup at a minimum.

4. 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 NYCDOHMH; and
- require compliance with the Department approved Site Management Plan.

5. 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 in Paragraph 4 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. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Contingent Track 4

In the event that a Track 2 restricted-residential use is not achieved, the following contingent remedial element will also be required and the remedy will achieve a Track 4 restricted-residential cleanup.

6. Cover System

A building foundation/slab currently exists across the Site and will be maintained to allow for restricted residential use of the Site. Any site redevelopment will maintain the existing cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper two feet of exposed surface soil meets the applicable SCOs for restricted residential use. 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). If a building foundation or building slab be removed in the future, a cover system consistent with that described in this Paragraph will be placed in any areas where the upper two feet of exposed surface soil exceeds the restricted residential soil cleanup objectives (RRSCOs).

Declaration

Date

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.

July 17, 2021

Gerard Burke

Director, Remedial Bureau B

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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, 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 repositories:

DECInfo Locator - Web Application https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C203139

Mott Haven Library Attn: Jeanine Thomas 321 East 140th Street Bronx, NY 10454 Phone: (718) 665-4878

Bronx Community Board 1 Attn: Cedric Loftin 3024 3rd Avenue Bronx, NY 10455 Phone: (718) 458-7117

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 399 Exterior Street site is located in an urban area in the Mott Haven neighborhood of the Bronx. The property is bounded by commercial properties to the north and south, Exterior Street to the east, and New York State Department of Transportation (NYSDOT) owned land to the west. Beyond the NYSDOT-owned land is the Harlem River.

Site Features: The site 1.34 acres and contains an asphalt paved parking lot. The property is currently unoccupied.

Current Zoning and Land Use: The property is zoned C4-4 (commercial and residential) and is surrounded by similarly zoned properties.

Past Use of the Site: The subject property was first developed in the early 1920s and used as a freight train support facility until circa 1975. Infrastructure supporting the freight train operation was removed from the site, at which time the use of the property transitioned to a parking lot. Between 1975 and the early 1990s the site was inactive. From the early 1990s to 2019 the site was operated as a parking area for school buses.

Site Geology and Hydrogeology: The stratigraphy of the site, from the surface down, consists of sand and gravel with fill material (brick, asphalt, and wood) underlain by silty sand and clay. Evidence of historic urban fill material was observed at depths up to ten feet below grade at several locations across the site. Groundwater was encountered between eight and ten feet below the surface at the site. Regional groundwater flow is estimated to be toward the west.

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
- 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:

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

benzo(a)pyrene lead benzo(b)fluoranthene copper

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.

IRM - Shallow Soil Excavation

In March 2021 the Department approved an IRM to excavate soil to depths to a minimum of 4 feet across the site to address historic fill, for off-site disposal. Implementation of the IRM is expected to begin in July 2021, and a Construction Completion Report (CCR) is expected in October 2021.

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: Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane. Based upon investigations conducted to date, the primary contaminants of concern for the site include SVOCs and metals.

Soil: Eleven soil samples were collected during the Remedial Investigation (RI). There were no exceedances of VOCs. Several SVOCs exceed the restricted residential use soil cleanup objectives (RRSCOs) across the site, including, but not limited to benzo(a)anthracene at 11 parts per million (ppm), benzo(a)pyrene at 12 ppm, benzo(b)fluoranthene at 13 ppm compared to their RRSCO of 1 ppm; and indeno(1,2,3-CD)pyrene at 7.4 ppm versus the RRSCO of 0.5 ppm. There were exceedances of metals, including, but not limited to, maximum levels of lead at 1,960 ppm compared to the RRSCO of 400 ppm and copper at 2,460 ppm compared to the RRSCO of 270 ppm. There were no exceedances of pesticides or PCBs above RRSCOs. There were no exceedances of PFAS above UUSCO. Data does not indicate any off-site impacts in soil related to this site.

Groundwater: Six groundwater samples were obtained as part of the RI. Five samples detected SVOCs including, but not limited to, maximum concentrations of benzo(a)anthracene at 0.823 parts per billion (ppb), benzo(a)pyrene at 0.971 ppb, benzo(b)fluoranthene at 0.823 ppb and indeno(1,2,3)cd-pyrene at 0.40 ppb, compared to their ambient water quality standard (AWQS) of 0.002 ppb. Metals detected include, but are not limited to, lead at 79.61 ppb compared to its AWQS of 25 ppb. This exceedance was of an unfiltered groundwater sample, and may be affected by suspended soil particles in the sample. There were no exceedances of VOCs or pesticides. There were two exceedances of the PCB, Arochlor-1260 at a maximum of 0.5740 ppb above the AWQS of 0.09 ppb. The highest detection of PFOA was 32.1 parts per trillion (ppt), and the highest detection of PFOS was 35.3 ppt, which both exceed the maximum contaminant level (MCL) of 10 ppt in drinking water for each compound. There were three detections of 1,4-dioxane, but these results did not exceed the AWQS. Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor: Four soil vapor points were sampled during the RI. Multiple VOCs were detected in each soil vapor sample collected from the subject property. Petroleum related compounds, such as benzene and toluene were detected in each soil vapor sample at relatively low concentrations. Chlorinated VOCs were detected at maximum concentrations of carbon tetrachloride at 0.71 micrograms per cubic meter (ug/m3), cis-1,2-dichloroethene at 0.25 ug/m3, trichloroethene (TCE) at 0.43 ug/m3, methylene chloride at 22 ug/m3, and tetrachloroethene at 25.6 ug/m3. Data does not indicate any off-site impacts in soil vapor related to 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*.

Since some contaminated soils remain at the site below concrete or clean backfill, people will not come in contact with contaminated soils unless they dig below the surface materials. 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. Volatile organic compounds in soil vapor (air spaces within the soil) may move into 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, soil vapor intrusion is not a current concern, however, the potential exists for people to inhale site contaminants in indoor air due to soil vapor intrusion in any future on-site building development and occupancy. Environmental sampling indicates soil vapor intrusion due to site contaminants is not a concern for off-site properties.

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.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

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.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or

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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 a Track 2: Restricted use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Soil Excavation and Groundwater Treatment remedy.

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

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- 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 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including:

grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);

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- soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards: and
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Excavation and off-site disposal of all on-site soils which exceed restricted-residential SCOs, as defined by 6 NYCRR Part 375-6.8 for Track 2, in the upper 15 feet. If a Track 2 - restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Approximately 21,000 cubic yards of contaminated soil will be removed from the site to an estimated depth of 8-20 feet.

3. Groundwater Extraction & Treatment

Groundwater extraction and treatment will be implemented to treat contaminants in groundwater during the excavation phase of remediation. The groundwater extraction system will be designed and installed so that the capture zone is sufficient to cover the areal and vertical extent of the entire site. The extracted groundwater will be treated and discharged to the Harlem River under a Department-issued SPDES permit. The method of the groundwater treatment will be determined by the Department and NYSDOH during the remedial design.

Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 2 restricted residential cleanup at a minimum.

4. **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 NYCDOHMH; and
- require compliance with the Department approved Site Management Plan.

5. Site Management Plan

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:

Institutional Controls: The Environmental Easement discussed in Paragraph 4 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;

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- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification;
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Contingent Track 4

In the event that a Track 2 restricted-residential use is not achieved, the following contingent remedial element will also be required and the remedy will achieve a Track 4 restricted-residential cleanup.

6. Cover System

A building foundation/slab currently exists across the Site and will be maintained to allow for restricted residential use of the Site. Any site redevelopment will maintain the existing cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper two feet of exposed surface soil meets the applicable SCOs for restricted residential use. 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). If a building foundation or building slab be removed in the future, a cover system consistent with that described in this Paragraph will be placed in any areas where the upper two feet of exposed surface soil exceeds the restricted residential soil cleanup objectives (RRSCOs).



