# **DECISION DOCUMENT**

266-270 West 96th Street Brownfield Cleanup Program New York, New York County Site No. C231133 August 2021



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

266-270 West 96th Street Brownfield Cleanup Program New York, New York County Site No. C231133 August 2021

# **Statement of Purpose and Basis**

This document presents the remedy for the 266-270 West 96th Street 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 266-270 West 96th Street 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
- 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 all on-site soils which exceed restricted residential soil cleanup objectives (SCOs), as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet or to bedrock, whichever is shallower. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 3,800 cubic yards of contaminated soil will be removed from the site.

# 3. Groundwater Dewatering and Treatment

Dewatering will be performed to facilitate the excavation. Contaminated groundwater from dewatering operations will be treated as necessary prior to discharge to the municipal sewer system.

#### 4. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

# 5. Vapor Intrusion Evaluation

As a part of the track 2 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

#### 6. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

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

#### 7. 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 6.

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 and groundwater use restrictions;
- 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;
- 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 for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

# **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.

August 31, 2021	Ad WBh
Date	Gerard Burke, Director Remedial Bureau B

# **DECISION DOCUMENT**

266-270 West 96th Street New York, New York County Site No. C231133 August 2021

# **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 <a href="https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C231133">https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C231133</a>

St. Agnes Library 444 Amsterdam Avenue New York, NY 10024 Phone: (212) 621-0619

Manhattan community board no 7

Attn: Roberta Semer 250 w 87th street #2 New York, NY 10024 Phone: (212) 362-4008

# **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 site is located at 266-270 West 96th Street in the Upper West Side neighborhood of Manhattan, NY and is identified as Tax Block 1243, Lots 57, 59, and 60. The site is about 10,700 square feet in area (0.240 acres). The site is bounded by West 96th Street followed by a 35-story mixed-use commercial/residential building and a 6-story multifamily residential building to the north, a 2-story commercial building to the east, 6- and 15-story residential buildings to the south, and 13- and 15-story residential buildings to the west.

Site Features: The site is located in an urban developed area of Manhattan that is generally covered with roads, walkways and buildings. Lot 57 is improved with a vacant three-story building with a cellar level that most recently operated as a power substation for the New York City Metro Transit Authority (MTA). Lots 59 and 60 are improved with two-story commercial buildings with full cellars and exterior patio spaces occupied by the Salvation Army and National Association for the Advancement of Colored People (NAACP), respectively.

Current Zoning and Land Use: The site is located in a residential district (R10A). The adjoining parcels and surrounding area are used for commercial, residential and institutional purposes.

Historical Site Use: Historical operations at the site include a power substation from 1912 to 2005 (Lot 57); an upholstery store from 1951 to 1973, and the Salvation Army from 1973 to present (Lot 59); and a single-family dwelling in 1902, followed by a multi-family dwelling space from 1912 to 1928, unidentified commercial entities from 1951 to the mid-1970s, and the NAACP from 1978 to present (Lot 60).

Site Geology and Hydrogeology: The subsurface strata beneath the site consists of historic fill material generally characterized by brown, fine- to medium-grained sand with varying amounts of silt, gravel, clay, asphalt, concrete, brick, and glass extending to depths of about 3 to 8 feet below cellar grade. The fill material is underlain by native soil generally consisting of medium-dense fine-grained silty sand with varying amounts of gravel and clay. The bedrock beneath the site is characterized as the Hartland Formation, which generally consists of muscovite-biotite-quartz

schist.

Groundwater at the site is present in the unconsolidated geologic materials and fractured bedrock. The bedrock is relatively impermeable except where concentrations of fractures, faults or joints are present. The top of bedrock was observed at depths ranging from about 3 to 12.5 feet below ground surface (bgs). Preferential flow occurs through the more permeable zones of the overburden, such as individual sand or gravel layers, and through bedrock fractures and joints. Groundwater appears to be a perched groundwater condition. Groundwater flow at the site is inferred to flow toward the north-northwest towards the Hudson River. Groundwater in Manhattan is not used as a source of potable water.

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
- indoor air
- sub-slab 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 benzo(a)pyrene benzo(b)fluoranthene benzo(k)fluoranthene chrysene

dibenz[a,h]anthracene fluoranthene

indeno(1,2,3-CD)pyrene

phenanthrene

pyrene

tetrachloroethane trichloroethene (TCE)

acenaphthene anthracene

benzo(g,h,i)perylene

lead mercury

1,2-dichlorobenzene

benzene

cis-1,2-dichloroethene

vinyl chloride Perfluorooctane Sulfonic Acid perfluorooctanoic acid

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion

# **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.

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and pesticides. Soil vapor, sub-slab soil vapor, and indoor air were sampled for VOCs. Based on the investigations conducted to date, the primary contaminants of concern are SVOCs and metals in soil, VOCs and SVOCs in groundwater, and VOCs in soil vapor.

Soil - SVOCs were found at concentrations exceeding the applicable restricted residential soil cleanup objectives (RRSCOs) including acenaphthene (max of 160 parts per million (ppm); RRSCO is 100 ppm), anthracene (max of 370 ppm; RRSCO is 100 ppm), benzo(a)anthracene (max of 770 ppm; RRSCO is 1 ppm), benzo(a)pyrene (max of 640 ppm; RRSCO is 1 ppm), benzo(b)fluoranthene (max of 680 ppm; RRSCO is 1 ppm), benzo(g,h,i)perylene (max of 350 ppm; RRSCO is 100 ppm), benzo(k)fluoranthene (max of 210 ppm; RRSCO is 3.9 ppm), chrysene (max of 750 ppm; RRSCO is 3.9 ppm), dibenz(a,h)anthracene (max of 87 ppm; RRSCO is 0.33 ppm), fluoranthene (max of 1,500 ppm; RRSCO is 100 ppm), indeno(1,2,3-cd)pyrene (max of 330 ppm; RRSCO is 0.5 ppm), phenanthrene (max of 1,500 ppm; RRSCO is 100 ppm), and pyrene (max of 2,000 ppm; RRSCO is 100 ppm). These contaminants were detected in soil borings throughout the site ranging from depths of 0 to 8 feet.

Metal RRSCO exceedances included lead (max of 1,060 ppm; RRSCO is 400 ppm) and mercury (max of 0.966 ppm; RRSCO is 0.81 ppm) These contaminants were detected in soil borings throughout the middle portion of the site ranging from depths of 0 to 5 feet.

Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Exceedances of the NYSDEC Technical and Administrative Guidance Series 1.1.1 Ambient Groundwater Quality standards (AWQS) for VOCs included 1,2-dichlorobenzene (max of 3.7 ppb; AWQS of 3 ppb), benzene (max of 1.2 ppb; AWQS of 1 ppb), cis-1,2-dichloroethene (max of 500 ppb; AWQS of 5 ppb), trichloroethene (TCE) (max of 10 ppb; AWQS of 5 ppb), vinyl chloride (max of 3.2 ppb; AWQS of 2 ppb). Perfluorooctanoic acid (PFOA) (max of 87.7 parts per trillion (ppt); Maximum Contaminant Level (MCL) of 10 ppt) and perfluorooctanesulfonic acid (PFOS) (max of 78.9 ppt; MCL 10 ppt). There are no public water supply wells within a half a mile and there is a municipal prohibition for use of groundwater at the site.

Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor, Sub-slab Soil Vapor, and Indoor Air - Multiple VOCs were detected in the soil vapor, sub-slab soil vapor as well as the indoor air. VOCs detected in soil vapor included tetrachloroethene (PCE) (max of 569 micrograms per cubic meter, or ug/m3) and trichloroethene (TCE) (max of 31.8 ug/m3). VOCs detected in sub-slab soil vapor included tetrachloroethene (PCE) (max of 97 ug/m3) and trichloroethene (TCE) (max of 3.09 ug/m3). VOCs detected in indoor air included tetrachloroethene (PCE) (max of 13 ug/m3) and trichloroethene (TCE) (max of 0.828 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*.

Some contaminated soils remain at the site below buildings and concrete, however, 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 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. 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 from site contaminants is not a concern for off-site buildings.

#### 6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to

pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

#### Groundwater

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

Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

#### Soil

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

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

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

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

### Soil Vapor

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

Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

### **SECTION 7: ELEMENTS OF THE SELECTED REMEDY**

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

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

The selected remedy is referred to as the Soil Excavation and Vapor Intrusion Evaluation 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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- 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
- 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

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Approximately 3,800 cubic yards of contaminated soil will be removed from the site.

#### 3. **Groundwater Dewatering and Treatment**

Dewatering will be performed to facilitate the excavation. Contaminated groundwater from dewatering operations will be treated as necessary prior to discharge to the municipal sewer system.

#### 4. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

#### 5. Vapor Intrusion Evaluation

As a part of the track 2 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

#### 6. **Institutional Controls**

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and

DECISION DOCUMENT August 2021 266-270 West 96th Street, Site No. C231133 Page 11 • require compliance with the Department approved Site Management Plan.

# 7. 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 6.

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 and groundwater use restrictions;
- 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;
- 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 for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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