DECISION DOCUMENT

CE - W. 42nd St. Gas Works
Voluntary Cleanup Program
New York, New York County
Site No. V00531
June 2018

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

DECLARATION STATEMENT - DECISION DOCUMENT

CE - W. 42nd St. Gas Works
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New York, New York County
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Statement of Purpose and Basis

This document presents the remedy for the CE - W. 42nd St. Gas Works site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the CE - W. 42nd St. Gas Works site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the remedy are as follows:

1. Green Remediation

Green remediation principals and techniques will be implemented to the extent feasible in the 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 gas 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.

2. Site Cover

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain the existing site 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 soil cleanup objectives (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 6NYCRR part 375-6.7(d).

3. Institutional Control

Due to the nature of the remaining real property addressed by the remedy, a public highway with no deed, the remedial party is unable to create an institutional control filed in the locality's real property records. In addition, an Environmental Notice is not expected to be readily identified during a search of real property records. Therefore, the Department will rely on the remedial party's on-going obligations pursuant to the Site Management Plan to ensure the effective control of the site, including notifications to affected property owners. The remedial party will periodically evaluate whether an institutional control has become feasible, and report on the evaluation as part of periodic reports to the Department. Upon creation, such control 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.

The following local use restriction will be relied upon to prevent ingestion of groundwater until the institutional control discussed above can be implemented: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

4. 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 institutional control evaluation noted in paragraph 2.

Engineering Controls: The existing cover in paragraph 1.

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;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP)

will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the portions of West 42nd Street, West 41st Street, 11th Avenue, and 12th Avenue that are adjacent to the site, as well as the building south of West 41st Street (MTA bus depot);

- descriptions of the provisions for agreements with the offsite property owners including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 1 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (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/or engineering controls.

b. a 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; and
- 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.

June 22, 2018

Date

George Heitzman, Director
Remedial Bureau C

DECISION DOCUMENT

CE - W. 42nd St. Gas Works
New York, New York County
Site No. V00531
June 2018

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 Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." 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:

Manhattan Borough President
Attn: Gail Brewer
1 Centre Street
19th Floor
New York, NY 10007
Phone: 212-669-8300

Manhattan Community Board 4
Attn: Jesse Bodine
330 W. 42nd Street
Suite 2618
New York, NY 10036
Phone: 212-736-4536

New York Public Library - Columbus Branch
742 10th Avenue
New York, NY 10019
Phone: 212-586-5098

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 West 42nd Street Former MGP site is located in an urban area along the west side of Manhattan, New York County. The site is bounded on the north and south by 42nd Street and 41st Street, respectively, and extends westward from 11th Avenue to the Hudson River beyond 12th Avenue. When it was operating, the former plant also extended west into what is now the Hudson River.

A large portion of the site, bounded by 11th and 12th Avenues, has already been remediated and redeveloped under the Department's Brownfield Cleanup Program as two separate sites known as Riverplace 1 and Riverplace 2 (site numbers C231012 and C231024). The remaining portion that was not addressed under the Brownfield Cleanup Program consists of property currently beneath 12th Avenue, 41st Street, and 42nd Street.

Contamination from the MGP has spread beneath an adjacent property south of 41st Street. This off-site parcel is currently in use as a bus maintenance depot, operated by the Metropolitan Transit Authority (MTA).

Site Features: The site is nearly flat and paved with asphalt and concrete. The off-site area is covered with a bus depot.

Current Zoning/Uses: The portion of the site not addressed under the Brownfield Cleanup Program is not zoned, since it is a right-of-way and is currently in use as city streets. The off-site area to the south is an MTA bus depot and is zoned M1-5, for manufacturing.

Past Uses of the Site: The site was used from the 1860s to the 1920s, as a manufactured gas plant (MGP). Gas was produced through the heating of coal and some petroleum products. This activity led to the contamination of the site. Source areas were the main components of the MGP, including the gas holders. The remaining off-site impacts are also being addressed under

this site.

Site Geology/ Hydrogeology: The site is underlain by a thick layer of fill, with thin layers of silt and sand underneath that. Bedrock is found as shallow as 20 feet below the ground surface. Groundwater at the site is encountered approximately seven feet below the ground and generally flows to the south and east.

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, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

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 Department and Consolidated Edison Company of New York, Inc. (Volunteer) entered into a multi-site Voluntary Cleanup Agreement on August 15, 2002 (Index Number D2-0003-02-08), which included 45 former MGP sites. The Agreement obligates the Volunteer to implement a full remedial program for MGP-related contamination at this site.

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:

- Coal Tar
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX)
- Total Polycyclic Aromatic Hydrocarbons (PAHs)

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.

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:
Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides.

Based upon investigations conducted to date, the site is contaminated with coal tar and its constituents. These constituents include benzene, toluene, ethylbenzene, and xylene (BTEX), and polycyclic aromatic hydrocarbons (PAHs). The coal tar is found at depths of 10 feet or more below ground surface. It is found at the eastern edge of 12th Avenue and sheens are found at the western edge, implying that coal tar is under the bulk of 12th avenue, between W.41st and W.42nd Streets. Coal tar has also been found under the eastern edge of the building on the south side of W.41st Street.

In soil, the PAH and BTEX contamination is co-located with the coal tar with the highest concentrations reaching 49,000 parts per million (ppm) for total PAHs and 1,340 ppm for total BTEX.

The groundwater plume is mainly confined to the site itself with onsite concentrations as high as 450 parts per billion (ppb) for total BTEX and 1,850 ppb for total PAHs.

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.*

People may contact contaminated soil or groundwater if they dig below the ground surface. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by the contamination. Volatile organic compounds in the soil vapor 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 of buildings, is referred to as soil vapor intrusion. Actions are not needed to address the potential for soil vapor intrusion given the current use of the site for streets, parking, and MTA operations. However, if the site is redeveloped or the use changes, the potential for soil vapor intrusion will be re-evaluated. Environmental sampling indicates that soil vapor intrusion 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.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

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.

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.

The selected remedy is referred to as the Site Management remedy.

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

1. Green Remediation

Green remediation principals and techniques will be implemented to the extent feasible in the 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;
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b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

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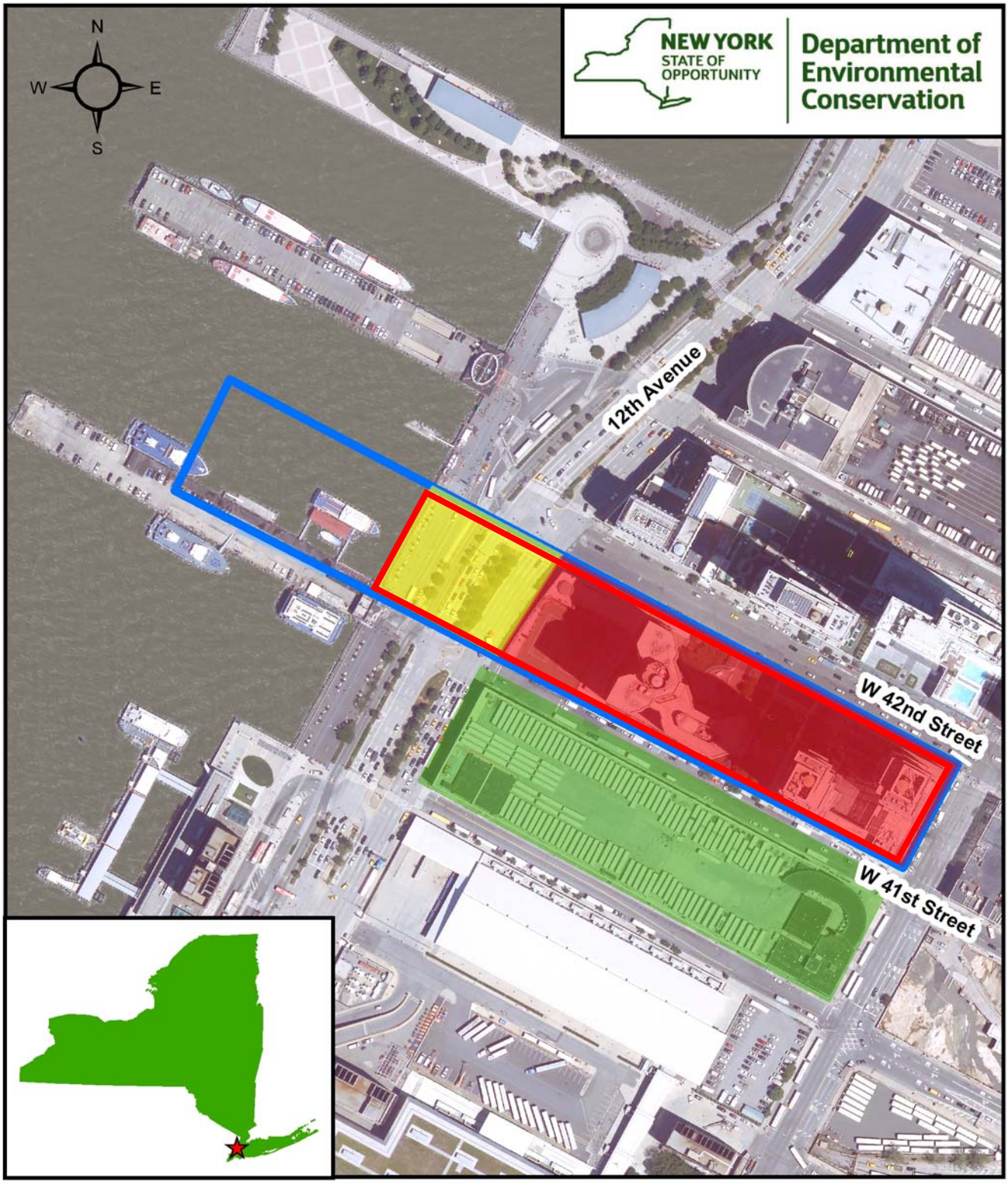
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



Legend

MGP Site Boundary

- Riverplace 1 and 2 (Remediated)
- Remaining MGP Site

- Original MGP Plant Boundary
- MTA Bus Depot

Site Location Map

West 42nd Street MGP

New York, New York

0 0.0150.03 0.06 0.09 0.12
Miles