DECISION DOCUMENT

CE - Pelham MGP Offsite Pelham Manor, Westchester County Site No. 360165 May 2023



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

DECLARATION STATEMENT - DECISION DOCUMENT

CE - Pelham MGP Offsite Pelham Manor, Westchester County Site No. 360165 May 2023

Statement of Purpose and Basis

This document presents the remedy for the CE - Pelham MGP Offsite (manufactured gas plant) 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 CE - Pelham MGP Offsite 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 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 shall be

constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent addition) to improve energy efficiency as an element of construction.

2. Coal Tar Recovery

Installation and operation of coal tar recovery wells along the southeastern edge of the site and in the vicinity of the distribution center access road, to remove potentially mobile coal tar from the subsurface. The number, depth, type and spacing of the wells will be determined during the design of the remedy. Coal tar will passively be collected periodically from each well; however, if the wells are determined by the Department to accumulate large quantities of coal tar over extended time periods, coal tar collection may be converted to an automated collection system.

3. Natural Attenuation with Monitoring

Groundwater contamination will be addressed through natural attenuation with monitoring, coupled with the source removal in item 2 above. Groundwater will be monitored for site related contamination and for natural attenuation indicators which will provide an understanding of the biological activity breaking down the contamination. It is anticipated that contamination will decrease by an order of magnitude in a reasonable period of time (i.e., several years) as determined by the Department. Cumulative site monitoring data will be evaluated every five years to determine the trend of site contamination. Based on cumulative data evaluation, active remediation may be proposed if it appears that natural processes alone will not address the site contamination. This contingency remedial action will depend on data trends in monitoring data collected during site management. It is currently anticipated that an enhanced bioremediation technology would be the expected contingency remedial action, if appropriate, based on monitoring data.

4. Site Management Plan

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

A. an Engineering Control Plan that identifies all engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following controls remain in place and effective:

Engineering Controls: The coal tar recovery system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- a provision should redevelopment occur, that no storm water retention basin or other infiltration structures are placed above areas known or suspected of containing coal tar, including coal tar in non-aqueous phase liquid form;
- a provision for evaluation of the potential for soil vapor intrusion that may be of MGPrelated contribution for any new buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

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- provision for the management, maintenance and inspection of the identified engineering controls;
- an agreement with the property owners to implement the remedy and any necessary site management plan requirements; and,
- the steps necessary for the periodic reviews and certification of the engineering controls.
- a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan В. 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 that may be of MGP-related contribution for any new buildings on the site, as may be required by the Site Management Plan.

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.

L. Salt Dept May 11, 2023 Scott Deyette, Director Date Remedial Bureau C

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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.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

DECInfo Locator - Web Application https://www.dec.ny.gov/data/DecDocs/360165/ https://www.dec.ny.gov/data/DecDocs/V00565/

Town of Pelham Public Library 530 Colonial Avenue Pelham NY 10803 Phone: (914) 738-1234

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 http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The CE Pelham MGP Offsite site is a 21-acre area located on the north side of the Boston Post Road (US Route 1) approximately one-tenth mile west of the intersection of Boston Post Road and the Hutchinson River Parkway. The site is in both the Village of Pelham Manor, Westchester County, and in the Eastchester section of Bronx County, New York. The site abuts a shopping center to the east. The site is bordered on the north by Eastchester Creek and on the west by a construction company storage yard. A recycling center and single and multi-family homes lie to the south of Boston Post Road.

Site Features: The site is flat. An active parcel distribution facility occupies approximately onethird of the site while a construction equipment storage yard occupies much of the remaining area. Most of the of the site is paved with other areas consisting of gravel.

Current Zoning and Use: The site is zoned for commercial and manufacturing uses. The surrounding parcels are currently used for a combination of commercial/retail, light industrial, and residential purposes. The nearest residential area is 300 feet south of the site.

Past Use of the Site: The Pelham manufactured gas plant operated adjacent to the site at the current shopping center from the late 1800s through 1951. A portion of the site was used for bulk petroleum storage (MOSF (Major Oil Storage Facility) ID number 3-2700).

Site Geology and Hydrology: Subsurface materials at the site consist of sandy fill material underlain by gray-brown native sand and occasional fine gravel lenses. In some locations, a silty peat layer separates the fill material from the native sand. The bedrock is present at depths ranging between 25 to 110 feet below ground surface and is deeper in the east. The groundwater flows to west-southwest towards Eastchester Creek and was found at depths between approximately 5 and 12 feet below ground surface.

This site had been tracked through March 31, 2018, under the former Voluntary Cleanup Program, Site No. V00565.

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 that restrict the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were evaluated in addition to an alternative which would allow for

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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

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Consolidated Edison Company of NY, Inc.

The Department and Consolidated Edison Company of New York Inc. (Con Edison) entered into an Order on Consent (DEC Index No. CO 0-20180516-519) dated July 13, 2018. The order requires Con Edison to implement a full remedial program for MGP-related contamination both on and off the site.

Residual BTEX (benzene, toluene, ethylbenzene, xylenes) compounds have been identified at this site related to former leaking underground storage tank/s used by the parcel distribution facility and former use of the site as a MOSF. These contaminants are not MGP-related, and therefore not the responsibility of Con Edison to remediate. If this non MGP-related contamination is determined to require further remediation, the Department shall pursue other PRPs.

SECTION 6: SITE CONTAMINATION

6.1: **Summary of the Remedial Investigation**

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,

• Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- sediment

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 hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminants of concern identified at this site are:

benzene pyrene ethylbenzene coal tar

toluene polycyclic aromatic hydrocarbons (PAHS),

xylene (mixed) total

naphthalene acenaphthene benzo(a)anthracene acenapthylene benzo(b)fluoranthene phenanthrene

benzo(a)pyrene indeno(1,2,3-cd)pyrene

chrysene

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

- groundwater
- soil
- sediment

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 Fish and Wildlife Resources Impact Analysis (FWRIA), which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination

Soil, groundwater and sediments were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern are certain VOCs in the form of benzene, toluene, ethylbenzene and xylene (BTEX), and certain SVOCs in the form of polycyclic aromatic hydrocarbons (PAHs). The investigations also observed visual coal tar in the form of non-aqueous phase liquid (NAPL). BTEX, PAHs and NAPL are formed in the manufactured gas process and are common contaminants at former MGP sites, including the Pelham MGP - Levin VCA Site, NYSDEC site number V00110, where MGP operations took place.

No MGP operations occurred on the site. The data suggest that MGP contaminants are present in the subsurface only and are the result of migration of MGP contaminants from the upgradient adjacent former Pelham MGP site which may have commingled with contaminants from other sources.

Soil: NAPL was observed in soil in borings along the site's southeastern edge, in an area approximately 400 feet by 150 feet and from 7 feet to 65 feet below ground surface (bgs), in the site overburden to the north of the distribution facility and adjacent to the former MGP site. At one boring location where weathered bedrock is relatively shallow (62 feet bgs), NAPL was observed at the bedrock interface. The NAPL did not extend vertically to the bedrock at any other location. NAPL was not observed in five of six borings drilled adjacent to the occupied parcel distribution facility. NAPL was observed in one adjacent boring at a depth of 54 to 64 feet below ground surface.

Surface and shallow soil (0-12 inches in depth) samples were not collected. The site is paved with limited areas of gravel. The adjacent Pelham MGP - Levin VCA Site is also paved. The

data indicate the MGP-related impacts on the site are a result of subsurface migration from the adjacent Pelham MGP - Levin VCA Site only.

Individual BTEX and PAH compounds exceeded the lower of unrestricted use soil cleanup objectives or the protection of groundwater soil cleanup objectives (USCOs/PGWSCOs), and, in certain samples, exceeded the commercial use soil cleanup objectives. These exceedances were generally co-located with NAPL observed in the subsurface. Benzene was detected up to 250 parts per million (ppm), exceeding the commercial use SCO (CSCO) of 44 ppm and PGWSCO of 0.06 ppm. Total PAHs were found as high as 11,476 ppm, with several individual PAHs exceeding unrestricted SCOs and commercial use SCOs. As examples, naphthalene was detected up to 6,300 ppm, acenaphthylene was detected up to 1,165 ppm, and phenanthrene was detected up to 1,600 ppm, exceeding their CSCO of 500 ppm for these compounds respectively, and PGWSCO of 12 ppm, 107 ppm and 1,000 ppm, respectively. Benzo(a)pyrene was detected up to 131 ppm, exceeding the CSCO of 1 ppm and PGWSCO of 22 ppm. Cyanide did not exceed the USCO or PGWSCO.

The site data does not indicate any impacts in soil beyond the boundaries of the Pelham MGP Off-site.

Groundwater: BTEX compounds exceeded their respective groundwater standards at the former MOSF and in the area of observed coal tar related to leaking underground petroleum storage tanks (LUSTS) at the parcel distribution facility. Benzene was detected up to 8,200 micrograms per liter (parts per billion or ppb) in a monitoring well proximate to observed coal tar, exceeding the standard of 1 ppb. At the same well toluene, ethylbenzene and naphthalene were detected up to 130 ppb, 91 ppb and 2,700 ppb respectively, exceeding their respective standard of 5 ppb.

The MGP NAPL is observed the furthest inland from Eastchester Creek. The data suggests dissolved-phase MGP-impacted groundwater, which may be commingled with on-site sources (e.g., impacts from the former MOSF operation and the LUSTs from the parcel distribution facility), may be migrating beyond the Pelham Off-site boundary into Eastchester Creek.

Sediments: Eastchester Creek is a navigationally maintained channel that meanders through an urban environment. The creek supports combined petroleum storage facilities with a capacity to store 217,550 barrels of petroleum (Port Series #5, 1999 report). During the remediation of the former MGP site proper, in addition to chemical analysis, radioactive dating and forensic analyses were used to characterize the creek sediments. The analyses concluded that the sediments were generally stable and depositional in the area of study. MGP-impacted sediment was found in a limited number of cores adjacent to and downstream of the former MGP location, dating to the time of MGP operation (late 1800s to 1951), at depths generally ranging from 6 to 16 feet below the sediment surface. Sediments post-dating the MGP operation, predominantly contained petroleum and soot hydrocarbons, had been deposited over the older sediments containing the limited MGP impacts. Combined sewer overflow (CSO) discharges into the creek were found to have accumulated in a thick surface layer (approximately 3 feet thick) over the limited deeper MGP-impacted sediment. NAPL was not observed in sediments during the remedial investigation. Two sediment samples collected from a sediment depth of 6 to 7.6 feet below the

sediment surface exhibited total PAHs in concentrations of 4,970 ppm and 4,800 ppm. The third highest total PAH concentration in a sediment sample was 240 ppm. Based on 1) the limited area of higher PAH concentrations found in the sediment; 2) the PAHs attributable to the MGP being positioned well below (6-7.6 feet deep) more recently deposited sediment; 3) sediment deposited following closure of the MGP as being generally void of MGP impacts; 4) a continuing contribution of PAHs from combined sewer outfalls upstream of the site; and 5) the engineering controls established at the MGP site (V00110) as well as those planned for this off-site area, that minimize any further contribution of MGP-related contamination into the creek, the Department's Division of Environmental Remediation, in consultation with the Division of Fish and Wildlife, and the NYS Department of Health, concludes no remedial action is necessary for the limited sediment in Eastchester Creek exhibiting MGP-impacts.

Summary of Human Exposure Pathways 6.4:

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 soil is unlikely because the majority of the site is covered with buildings and pavement. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not contaminated by this site. 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. The potential exists for the inhalation of contaminants due to soil vapor intrusion in areas identified with manufactured gas plant impacts.

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.

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, MGP-related 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 coal tar recovery and natural attenuation with monitoring remedy and is shown on Figure 2.

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 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 shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent addition) to improve energy efficiency as an element of construction.

2. Coal Tar Recovery

Installation and operation of coal tar recovery wells along the southeastern edge of the site and in the vicinity of the distribution center access road, to remove potentially mobile coal tar from the subsurface. The number, depth, type and spacing of the wells will be determined during the design of the remedy. Coal tar will passively be collected periodically from each well; however, if the wells are determined by the Department to accumulate large quantities of coal tar over extended time periods, coal tar collection may be converted to an automated collection system.

3. Natural Attenuation with Monitoring

Groundwater contamination will be addressed through natural attenuation with monitoring, coupled with the source removal in item 2 above. Groundwater will be monitored for site related contamination and for natural attenuation indicators which will provide an understanding of the biological activity breaking down the contamination. It is anticipated that contamination will decrease by an order of magnitude in a reasonable period of time (i.e., several years) as determined by the Department. Cumulative site monitoring data will be evaluated every five years to determine the trend of site contamination. Based on cumulative data evaluation, active remediation may be proposed if it appears that natural processes alone will not address the site contamination. This contingency remedial action will depend on data trends in monitoring data collected during site management. It is currently anticipated that an enhanced bioremediation technology would be the expected contingency remedial action, if appropriate, based on monitoring data.

4. Site Management Plan

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

an Engineering Control Plan that identifies all engineering controls for the site and details Α. the steps and media-specific requirements necessary to ensure the following controls remain in place and effective:

Engineering Controls: The coal tar recovery system discussed in Paragraph 2 above.

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DECISION DOCUMENT CE - Pelham MGP Offsite, Site No. 360165 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 should redevelopment occur, that no storm water retention basin or other infiltration structures are placed above areas known or suspected of containing coal tar, including coal tar in non-aqueous phase liquid form;
- a provision for evaluation of the potential for soil vapor intrusion that may be of MGPrelated contribution for any new buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provision for the management, maintenance and inspection of the identified engineering controls:
- an agreement with the property owners to implement the remedy and any necessary site management plan requirements; and,
- the steps necessary for the periodic reviews and certification of the engineering controls.
- В. 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 that may be of MGP-related contribution for any new buildings on the site, as may be required by the Site Management Plan.



