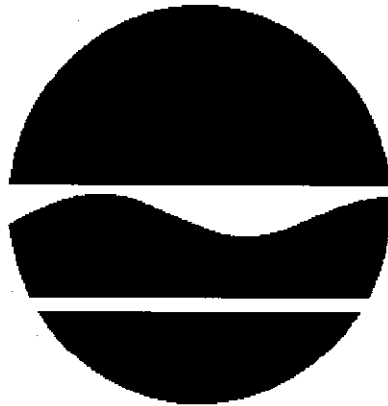


# RECORD OF DECISION

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K - Far Rockaway MGP  
Far Rockaway, Queens County  
Site No. 241032  
March 2012



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

# **DECLARATION STATEMENT - RECORD OF DECISION**

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K - Far Rockaway MGP  
Far Rockaway, Queens County  
Site No. 241032  
March 2012

## **Statement of Purpose and Basis**

This document presents the remedy for the K - Far Rockaway MGP site, a Class 2 inactive hazardous waste disposal 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the K - Far Rockaway MGP site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

## **Description of Selected Remedy**

The elements of the selected remedy are as follows:

1) A remedial design program will be implemented to provide the details necessary for the construction, operation, 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:

- a) Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- b) Reducing direct and indirect greenhouse gas and other emissions;
- c) Increasing energy efficiency and minimizing use of non-renewable energy;
- d) Conserving and efficiently managing resources and materials;
- e) Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- f) Maximizing habitat value and creating habitat when possible;
- g) Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- h) Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2) Excavation of source materials, including the MGP related structures and foundations, to

a maximum depth of 15 feet below the ground surface (bgs) to meet soil cleanup objectives (SCOs) to allow for the commercial use of the site. Approximately 4,500 cubic yards of soil will be excavated and sent off-site for disposal/treatment at a thermal desorption facility. Dewatering of the excavation may be necessary to accomplish the excavation. Any water generated will be pre-treated prior to discharge to a permitted facility such as a publicly owned treatment works (POTW).

3) Installation of excavation shoring to protect the integrity of the railroad and adjacent buildings during excavation.

4) Backfilling of the excavation areas with clean fill from a certified off-site location to replace the excavated soil. The backfill material will meet the requirements of 6 NYCRR Part 375-6.7(d).

5) A site cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas of excavation. The soil cover or fill material will be placed over a demarcation layer. Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial 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).

6) Following the excavation, the remaining impacted groundwater will be treated, if determined necessary, using in-situ treatment such as oxygen injection system to enhance natural attenuation.

7) Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

8) 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 7 above.

Engineering Controls: Groundwater treatment system and soil cover. 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;
- 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;
- and
- a schedule of monitoring and frequency of submittals to the Department;

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan if needed includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.

#### **New York State Department of Health Acceptance**

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

#### **Declaration**

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 27, 2012

Date



Robert W. Schick, P.E., Acting Director  
Division of Environmental Remediation

# RECORD OF DECISION

K - Far Rockaway MGP  
Far Rockaway, Queens County  
Site No. 241032  
March 2012

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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 hazardous wastes 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 hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

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:

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

## **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 Far Rockaway Former MGP Site is located in a mixed commercial and residential area of the Borough of Queens, NY. The site is located on the north side of Brunswick Avenue between Beach 12th Street and Milton Avenue. The site is also known as 1200 - 1224 Brunswick Avenue.

**Site Features:** The one-acre site is flat, and has three two-story buildings, paved parking lots and landscaped areas. Immediately to the north of the site are several tracks of the Long Island Railroad. Beyond the railroad tracks are commercial buildings. To the east and south are residential properties.

**Current Zoning/Use:** Currently the site is used for warehousing, shipping and distribution operations and is zoned commercial.

**Historic Uses:** The site was operated as a gas manufacturing plant between the mid 1890's and 1909. Certain activities at the former manufactured gas plant (MGP) resulted in the release of contaminants to the environment. Following the operation of the MGP, the site was utilized as office space. After 1981, no MGP-related features were present at the site with the exception of one brick building that is currently present at 1216 Brunswick Avenue which housed former MGP operations equipment and currently houses offices and warehouse space.

**Site Geology and Hydrogeology:** Fill, consisting of sand with coal, steel and wood fragments, brick fragments, glass, cinder and ash, was found throughout the site from the surface to a depth of about 5 to 7 feet. Sand underlies the fill to a depth of about 37 feet. A silty clay layer was found beneath the sand. The water table ranges from 3 to 7 feet below ground surface.

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 commercial use (which allows

for 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 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 included in the Tables for the media being evaluated in Exhibit A.

## **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.

No PRPs have been documented to date.

The Department and Keyspan Energy Delivery, New York and Keyspan Energy Delivery, Long Island entered into a Consent Order on February 22, 2007. The Order obligates the responsible parties to implement a full remedial program for this and 13 other former MGP sites.

## **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
- 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. The tables found in Exhibit A list the applicable SCGs in the footnotes. 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 in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

COAL TAR	ACENAPHTHENE
BENZENE	Chrysene
XYLENE (MIXED)	FLUORANTHENE
TOLUENE	FLUORENE
ETHYLBENZENE	BENZ(A)ANTHRACENE
NAPHTHALENE	BENZO(GHI)PERYLENE

As illustrated in Exhibit A, 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 Record of Decision.

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.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Nature and Extent of Contamination:

Soil: Coal tar impacted soil with certain polycyclic aromatic hydrocarbons (PAHs) and BTEX exceeding the Part 375 soil cleanup objectives for commercial use was observed at depths of 5 to 15 feet below ground surface (bgs). The area of impact is approximately one half acres, largely in proximity to the former gas holder. Evidence of site related contaminants were detected to depths of up to 30 feet bgs.

Groundwater: BTEX compounds (benzene, toluene, ethylbenzene, xylene) and naphthalene exceeded groundwater standards in the shallow aquifer over an approximate 1.5 acre area, including a limited area of off-site impact beneath the adjacent commercial use areas.

The Fish and Wildlife Resources Impact Analysis concluded that no special resources are threatened in this fully developed area.

### **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*.

Contact with site-related contaminants in soil is unlikely because they are beneath buildings and pavement. The area is served by public water, therefore, exposure to site-related contaminants in drinking water is not expected.

### **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.
- Remove the source of ground or surface water contamination.

## Soil

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

- Prevent ingestion/direct contact with contaminated soil.

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

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study (FS) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's remedy is set forth at Exhibit D.

The selected remedy is referred to as the Excavation remedy.

The estimated present worth cost to implement the remedy is \$6,018,000. The cost to construct the remedy is estimated to be \$4,173,000 and the estimated average annual cost is \$120,000.

The elements of the selected remedy are as follows:

1) A remedial design program will be implemented to provide the details necessary for the construction, operation, 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:

- a) Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- b) Reducing direct and indirect greenhouse gas and other emissions;
- c) Increasing energy efficiency and minimizing use of non-renewable energy;
- d) Conserving and efficiently managing resources and materials;
- e) Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- f) Maximizing habitat value and creating habitat when possible;
- g) Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- h) Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2) Excavation of source materials, including the MGP related structures and foundations, to a maximum depth of 15 feet below the ground surface (bgs) to meet soil cleanup objectives (SCOs) to allow for the commercial use of the site. Approximately 4,500 cubic yards of soil will be excavated and sent off-site for disposal/treatment at a thermal desorption facility. Dewatering of the excavation may be necessary to accomplish the excavation. Any water generated will be pre-treated prior to discharge to a permitted facility such as a publicly owned treatment works (POTW).

3) Installation of excavation shoring to protect the integrity of the railroad and adjacent buildings during excavation.

4) Backfilling of the excavation areas with clean fill from a certified off-site location to replace the excavated soil. The backfill material will meet the requirements of 6 NYCRR Part 375-6.7(d).

5) A site cover will be required to allow for commercial use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas of excavation. The soil cover or fill material will be placed over a demarcation layer. Where the soil cover is required it will be a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial 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).

6) Following the excavation, the remaining impacted groundwater will be treated, if determined necessary, using in-situ treatment such as oxygen injection system to enhance natural attenuation.

7) Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

8) 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 7 above.

Engineering Controls: Groundwater treatment system and soil cover. 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;
- 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;
- and

- a schedule of monitoring and frequency of submittals to the Department;

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy.

The plan if needed includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.

## Exhibit A

### Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into three categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and inorganics (metals). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 6.1.1 are also presented.

### Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater and soil.

Wastes are defined in 6 NYCRR Part 375-1.2 (aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375 (au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Wastes and Source areas were identified at the site.

Manufactured gas was cooled and purified prior to distribution. Two principal waste materials were produced in this process: coal tar and purifier waste. Coal tar is a reddish brown to black oily liquid by-product which formed as a condensate as the gas cooled. Purifier waste is a mixture of iron filings and wood chips which was used to filter and remove cyanide and sulfur gases from the mix prior to distribution.

Coal tar does not readily dissolve in water. Materials such as this are commonly referred to as non-aqueous phase liquid, or NAPL. The term NAPL and coal tar are used interchangeably in this document. Although most coal tars are slightly denser than water, the difference in density is slight. Consequently, they can either float or sink when in contact with water.

Specific volatile organic compounds (VOCs) of concern are benzene, toluene, ethylbenzene and xylenes. These are referred to collectively as BTEX in this document. Specific semivolatile organic compounds of concern are the polycyclic aromatic hydrocarbons (PAHs):

acenaphthene	pyrene	acenaphthylene
<i>chrysene</i>	anthracene	fluoranthene
<i>benzo(a)anthracene</i>	<i>benzo(a)pyrene</i>	fluorene
<i>indeno(1,2,3-cd)pyrene</i>	<i>benzo(b)fluoranthene</i>	2-methylnaphthalene
benzo(g,h,i)perylene	<i>benzo(k)fluoranthene</i>	naphthalene
phenanthrene	dibenzo(a,h)anthracene	

Total PAH concentrations as referred to in this plan are the sum of the individual PAHs listed above. The italicized PAHs are probable human carcinogens.

Source areas were identified at the site as noted on Figure 3. Coal tar or source material was found at depths ranging from 5 feet to 15 feet below the ground surface (bgs).

The waste/source areas identified will be addressed in the remedy selection process.

### Groundwater

Groundwater samples were collected from monitoring wells and analyzed for volatile, semivolatile, and metals compounds to assess the nature and extent of groundwater impacts from the operation of the former MGP. The primary contaminants of concern are benzene, ethylbenzene, toluene and xylene (collectively refer to as BTEX) and PAH compounds.

Sampling results indicate that BTEX and naphthalene compounds were the prevalent contaminants detected in both the shallow and deep wells. The contamination was observed in the immediate vicinity of the former gas holder on the southwest side of site. While iron was detected in the deeper wells above the groundwater guidance values, it does not appear to be related to the operation of the former MGP. Groundwater is not used as a potable water supply locally as the surrounding area is served by public water.

**Table # 1 - Groundwater**

Detected Constituents	Concentration Range Detected (ppb) <sup>a</sup>	SCG <sup>b</sup> (ppb)	Frequency Exceeding SCG
<b>VOCs</b>			
Benzene	0.71-400	1	11 of 49
Ethylbenzene	0.52-7300	5	13 of 49
Styrene	0.58-13000	5	9 of 49
Toluene	0.56-15000	5	11 of 49
Xylenes (total)	ND-19100	NA	NA
Total BTEX	0.95-34333	NA	NA
<b>SVOCs</b>			
Naphthalene	1.5-4100	10	12 of 36
Total PAHs	1.2-4318.8	NA	NA
<b>Inorganics</b>			
Iron	64-26500	300	22 of 26
Mercury	ND-0.85	0.7	1 of 26

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

ND - Not Detected

NA - Not Applicable

Based on the findings of the RI, the past disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern which will

drive the remediation of groundwater to be addressed by the remedy selection process are BTEX and naphthalene compounds.

### Soil

Surface and subsurface soil samples were collected and analyzed for volatile, semi-volatile, and metals compounds during the RI to determine the nature and extent of impacts to soil as a result of the operation of the former MGP. Sample results show non-detect or low level detection of most compounds, with the exception of a few samples where individual PAH compound (e.g., benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and dibenzo(a,h)anthracene) concentrations exceed commercial SCOs for soil. Visible contamination was detected in subsurface soil at locations near the former gas holder on the southwest side of the site at depths of 5 feet to 15 feet bgs. A thin layer (approximately 0.1 feet thick) tar saturated band of soil was detected at a depth of approximately 30 feet bgs at several sampling locations.

**Table #2 - Surface Soil**

Detected Constituents	Concentration Range Detected (ppm) <sup>a</sup>	Unrestricted SCG <sup>b</sup> (ppm)	Frequency Exceeding Unrestricted SCG	Commercial Use SCG <sup>c</sup> (ppm)	Frequency Exceeding Restricted SCG
<b>VOCs</b>					
Total BTEX	ND-0.027	NA	NA	NA	NA
<b>SVOCs</b>					
Benzo(a)anthracene	0.12-6.9	1	3 of 5	5.6	1 of 5
Benzo(a)pyrene	0.13-9	1	4 of 5	1	4 of 5
Benzo(b)fluoranthene	0.32-14	1	4 of 5	5.6	1 of 5
Benzo(k)fluoranthene	0.11-5.7	0.8	3 of 5	56	0 of 5
Chrysene	0.18-8.6	1	4 of 5	56	0 of 5
Dibenzo(a,h)anthracene	0.051-1.8	0.33	2 of 5	0.56	1 of 5
Indeno(1,2,3-cd)pyrene	0.14-4.5	0.5	3 of 5	5.6	0 of 5
Total PAHs	2.538-70.82	500	0 of 5	500	0 of 5
<b>Inorganics</b>					
Copper	26.1-195	50	3 of 5	270	0 of 5
Lead	78.2-289	63	5 of 5	1000	0 of 5
Mercury	0.145-0.44	0.18	4 of 5	2.8	0 of 5
Zinc	123-363	109	5 of 5	10000	0 of 5

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

ND - Not Detected

NA - Not Applicable

**Table #3 - Subsurface Soil**

Detected Constituents	Concentration Range Detected (ppm) <sup>a</sup>	Unrestricted SCG <sup>b</sup> (ppm)	Frequency Exceeding Unrestricted SCG	Commercial Use SCG <sup>c</sup> (ppm)	Frequency Exceeding Restricted SCG
<b>VOCs</b>					
Total BTEX	0.137-3.147	NA	NA	NA	NA
Xylenes (Total)	0.061-2.2	0.26	2 of 34	500	0 of 34
<b>SVOCs</b>					
Benzo(a)anthracene	0.072-8.4	1	1 of 34	5.6	1 of 34
Benzo(a)pyrene	0.08-7.9	1	1 of 34	1	1 of 34
Benzo(b)fluoranthene	0.045-7.2	1	1 of 34	5.6	1 of 34
Benzo(k)fluoranthene	0.28-1.8	0.8	1 of 34	56	0 of 34
Chrysene	0.041-8.7	1	1 of 34	56	0 of 34
Indeno(1,2,3-cd)pyrene	0.095-4.2	0.5	1 of 34	5.6	0 of 34
Naphthalene	0.07-140	12	1 of 34	500	0 of 34
Total PAHs	0.11-543.87	500	1 of 34	500	1 of 34
<b>Inorganics</b>					
Arsenic	0.283-15.1	13	1 of 34	16	0 of 34
Lead	0.188-246	63	2 of 34	1000	0 of 34
Mercury	0.004-11.6	0.18	1 of 34	2.8	1 of 34
Zinc	1.83-122	109	1 of 34	10000	0 of 34

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives value for the Protection of Public Health for Commercial Use, unless otherwise noted.

ND - Not Detected

NA - Not Applicable

Based on the findings of the Remedial Investigation, the presence of MGP related contaminants, have resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are, polycyclic aromatic hydrocarbons (PAHs), and benzene, toluene, ethylbenzene and xylene (BTEX) compounds associated with residues from the operation of the former MGP.

### Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of sub-slab soil vapor under structures, and indoor air inside structures. At this site due to the presence of buildings in the impacted area a full suite of samples were collected to evaluate whether soil vapor intrusion was occurring.



Based on the concentration detected, and in comparison with the NYSDOH Soil Vapor Intrusion Guidance, no site-related soil vapor contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for soil vapor

**Exhibit B**

**Description of Remedial Alternatives**

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

**Alternative 1: No Action**

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment. The No Action alternative does not include long-term monitoring and therefore has no associated cost.

**Alternative 2: Restore Site to Pre-Release Conditions**

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A and soil meets the unrestricted soil cleanup objectives listed in Part 375-6.8 (a). This alternative will include:

- Excavation of all MGP source material and stained soil on the 1224 and 1250 Brunswick Avenue properties to depths up to 30 feet bgs;
- Disposal of the excavated material in a permitted off-site landfill or treatment at an off-site thermal desorption facility;
- The use of odor control mechanisms such as form to control fugitive emissions;
- Installation of excavation shoring system to protect the rail road and adjacent structures during excavation;
- Dewatering of excavation areas to allow for effective excavation activities;
- Backfilling the excavated areas with certified clean soil from an off-site location. The site will be restored to a pre-disturbance grade including the use of asphalt at some locations;
- Installation of injection wells for the injection of in-situ chemical oxidation compounds to treat off-site dissolved phase impacts; and
- Monitoring of groundwater to determine the effectiveness of the remedy.

The cost to implement Alternative 2 has been estimated as follows:

Present Worth: .....	\$10,491,000
Capital Cost:.....	\$10,491,000
Annual Cost: .....	\$0

**Alternative 3: Excavate Source Material with Enhanced Natural Attenuation**

This alternative will include the following components:

- Excavation of MGP source material, including the MGP related structures and foundations, to a maximum depth of 15 feet bgs;
- Disposal of the excavated material in a permitted off-site landfill or treatment at an off-site thermal desorption facility;

- Installation of excavation shoring system to protect the rail road and adjacent structures during excavation;
- Dewatering of excavation areas to allow for effective excavation activities;
- Backfilling the excavated areas with certified clean soil from an off-site location. Fill material will be placed over a demarcation layer. The site will be restored to a pre-disturbance grade including the use of asphalt at some locations;
- Monitoring of the groundwater plume following excavation to establish the extent of dissolved phase impacts after source area remediation;
- Injection of oxygen in the subsurface through a series of injection wells to treat impacted groundwater if determined necessary; and
- Development of a site management plan to include institutional controls to address soil and groundwater impacts including soil impacts beyond the excavation limits.

The cost to implement Alternative 3 has been estimated as follows:

<i>Present Worth:</i> .....	\$6,018,000
<i>Capital Cost:</i> .....	\$4,173,000
<i>Annual Costs:</i> .....	\$120,000

**Alternative 4: In-situ Soil Solidification (ISS) with Enhanced Natural Attenuation**

Alternative 4 will include the following components:

- Perform soil solidification in the source areas to a maximum depth of 15 bgs. Prior to ISS, the materials located at the top five to six feet in the ISS area will be excavated to remove below grade obstructions. Impacted soil will be mixed with cement bentonite mixture using augers or excavator bucket;
- Excavate soil solidification spoils and dispose of at an off-site permitted facility;
- Cover the ISS areas with clean material and restore a portion of the site with asphalt;
- Injection of oxygen in the subsurface through a series of injection wells to treat impacted groundwater if determined necessary; and
- Development of a site management plan to include institutional controls to address soil and groundwater impacts including soil impacts beyond the ISS limits.

The cost to implement Alternative 4 has been estimated as follows:

<i>Present Worth:</i> .....	\$6,436,000
<i>Capital Cost:</i> .....	\$4,591,000
<i>Annual Costs:</i> .....	\$120,000

**Exhibit C****Remedial Alternative Costs**

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
No Action	\$0	\$0	\$0
Alternative 2 – Restore Site to Pre-release Conditions	\$10,491,000	\$0	\$10,491,000
Alternative 3 - Excavation with Enhanced Natural Attenuation	\$4,173,000	\$120,000	\$6,018,000
Alternative 4 - Solidification with Enhanced Natural Attenuation	4,591,000	\$120,000	\$6,436,000

## Exhibit D

### SUMMARY OF THE SELECTED REMEDY

The Department has selected Alternative 3, Excavate Source Material with Enhanced Natural Attenuation as the remedy for this site. Alternative 3 will achieve the remediation goals for the site by reducing the volume, toxicity and mobility of contaminated soil due to removal and off-site disposal and/or treatment of contaminated source material. The selected remedy will greatly reduce the source of contamination to groundwater. The elements of this remedy are described in Section 7. The selected remedy is depicted in Figure 4.

### Basis for Selection

The selected remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

Alternative 1 (No Action) does not include active remedial actions and thus will not provide any additional protection to human health and the environment over what currently exists. Additionally, this alternative will not comply with SCGs; since source material will remain in place and continue to pose a threat to both human health and the environment. Therefore, Alternative 1 is eliminated from further evaluation.

Alternatives 2, 3 and 4 will all provide comparable levels of protection to public health and the environment and were retained for further evaluation.

Alternative 2, which calls for total removal and off-site treatment/disposal of MGP impacted material will provide the greatest protection compared to the other alternatives. Alternative 3 will achieve protection and provide permanent reduction of volume of impacted materials due to source removal and off-site treatment and/or disposal. Under Alternative 3, source material will be removed to a depth up to 15 feet bgs. Alternative 4, which includes in-situ solidification of impacted material, will provide lesser amount of protection to public health and the environment. The solidified material under Alternative 4, while immobilized, will remain in place at the site.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternative 2 will comply with SCGs as the site will be restored to pre-release conditions. Alternative 3 will achieve SCGs and meet the RAOs by removing source material to a depth up to 15 feet bgs for off-site disposal and/or treatment, thereby limiting exposure and the likelihood of off-site migration of contaminants. Under this alternative, impacted groundwater will be actively treated using oxygen injection technology to enhance natural attenuation of groundwater contamination if necessary. Alternative 4 will also achieve SCGs by using a

combination of soil excavation and in-place treatment of source material using ISS. This alternative will provide soil cover and include institutional controls for the protection of public health.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Long-term effectiveness is best achieved by Alternative 2, since all contaminated material will be removed from the site to achieve the unrestricted use SCOs, although this increase in effectiveness in comparison to Alternative 3 is slight. Alternative 3 will provide greater long-term effectiveness compared to Alternative 4 as the source material will be removed for off-site treatment/disposal. Alternative 4, while providing long-term effectiveness through ISS treatment (i.e., immobilization) of source material, will allow the treated material to remain in place.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives 2 and 3 will both provide a significant reduction in toxicity, mobility and volume as approximately 7,000 cubic yards (cy) and 4,500 cy of source material will be addressed, respectively. Residual material left in place under Alternative 3 will be addressed using in-situ oxygen injection, if required, based on monitoring results. Although Alternative 4 will reduce toxicity and mobility of on-site source material, it will not, reduce the volume of impacted material as the ISS material will be left in place at the site.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Alternatives 2, 3 and 4 will all have short-term impacts to the community and workers due to construction activities. Alternative 2 with total removal of impacted materials to full depth of approximately 30 feet bgs will result in the greatest short-term impacts to the community. The extensive excavation to be performed under Alternative 2 will result in a large amount of excavated material in need of transport through the community for off-site treatment and/or disposal. In addition, excavation to a depth of 30 feet bgs will result in significant disruption to the community, nearby residences and commercial establishments as a result of the need for large scale dewatering, treatment and disposal of water as well as significantly more fill brought to the site. Alternative 3 with lesser removal (compared to Alternative 2) but equally effective will be sustainable as the alternative will result in significant lesser use of landfill space and reduction of carbon footprint due to lesser material handling and transportation. Alternative 4 will result in slightly higher short-term impacts compared to Alternatives 3. Alternative 4 which addresses the impacted material with application of ISS, will generate ISS spoils and possibly odors during the construction. Each of these alternatives can be accomplished in approximately 6 months. Additional time will be required for groundwater treatment if determined necessary.

6. Implementability. The technical and administrative feasibility of implementing each alternative are

# **APPENDIX A**

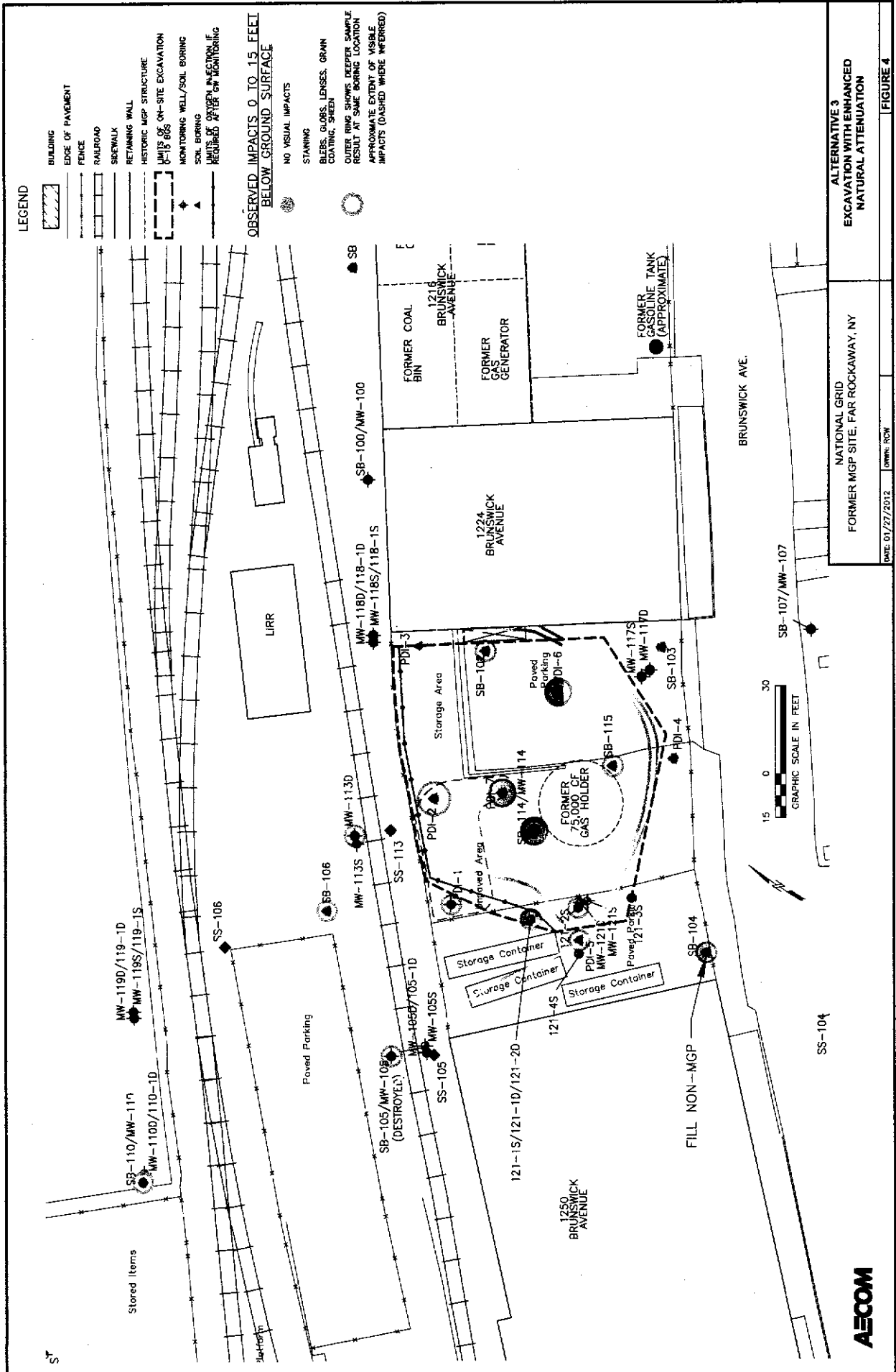
## **Responsiveness Summary**

**LEGEND**

- BUILDING
- EDGE OF PAVEMENT
- FENCE
- RAILROAD
- SIDEWALK
- RETAINING WALL
- HISTORIC MCP STRUCTURE
- LIMITS OF ON-SITE EXCAVATION 0-15 FEET
- MONITORING WELL/SOIL BORING
- SOIL BORING
- LIMITS OF OXYGEN INJECTION IF REQUIRED AFTER CW MONITORING

**OBSERVED IMPACTS 0 TO 15 FEET BELOW GROUND SURFACE**

- NO VISUAL IMPACTS
- STAINING
- BLERS, GLOSS, LENSES, GRAIN COATING, SHEEN
- OUTER RING SHOWS DEEPER SAMPLE RESULT AT SAME BORING LOCATION
- APPROXIMATE EXTENT OF VISIBLE IMPACTS (DASHED WHERE APPLICABLE)



**AECOM**

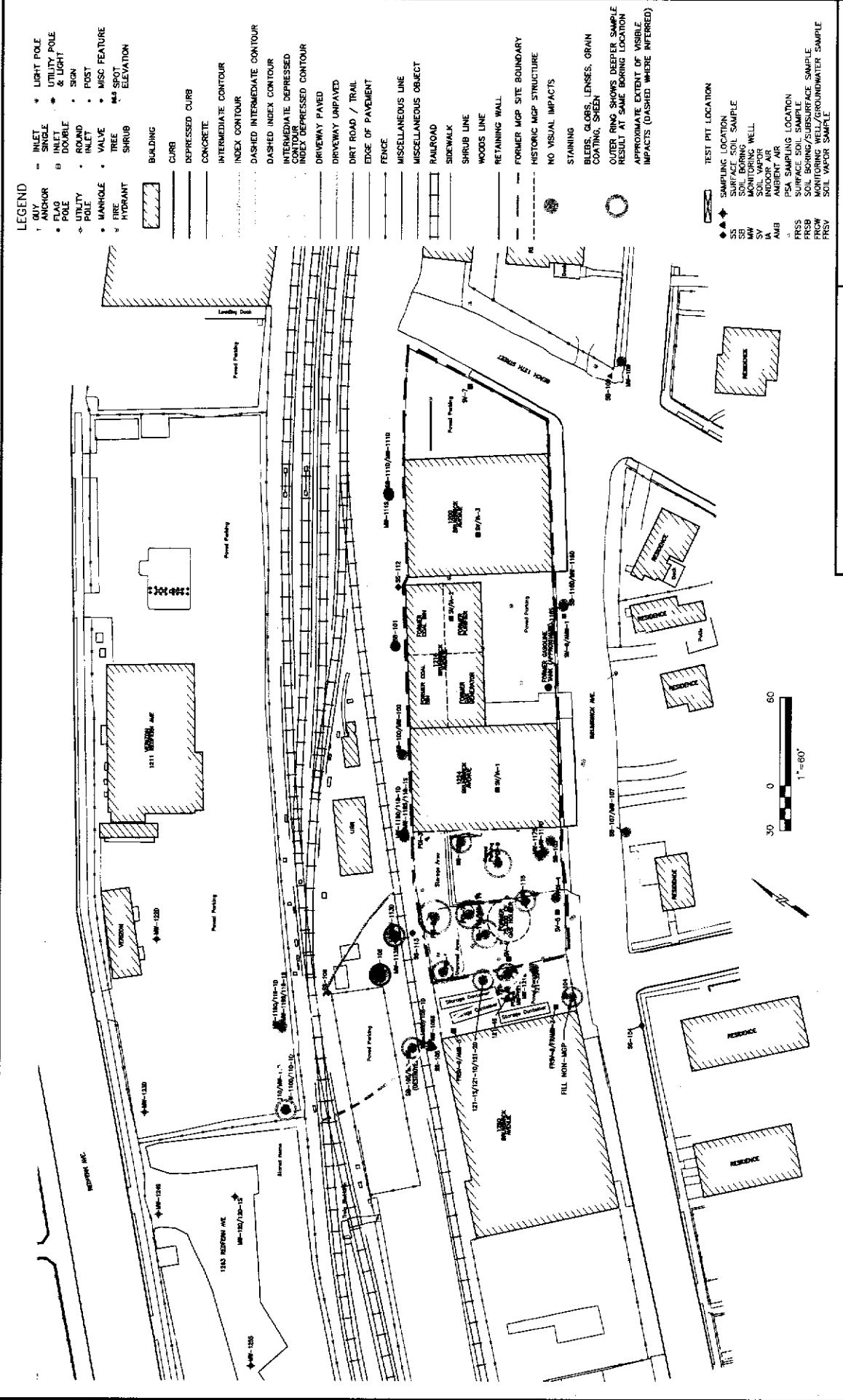
ALTERNATIVE 3  
EXCAVATION WITH ENHANCED  
NATURAL ATTENUATION

NATIONAL GRID  
FORMER MCP SITE, FAR ROCKAWAY, NY

DATE: 01/27/2012 DRAWN: RCW

FIGURE 4



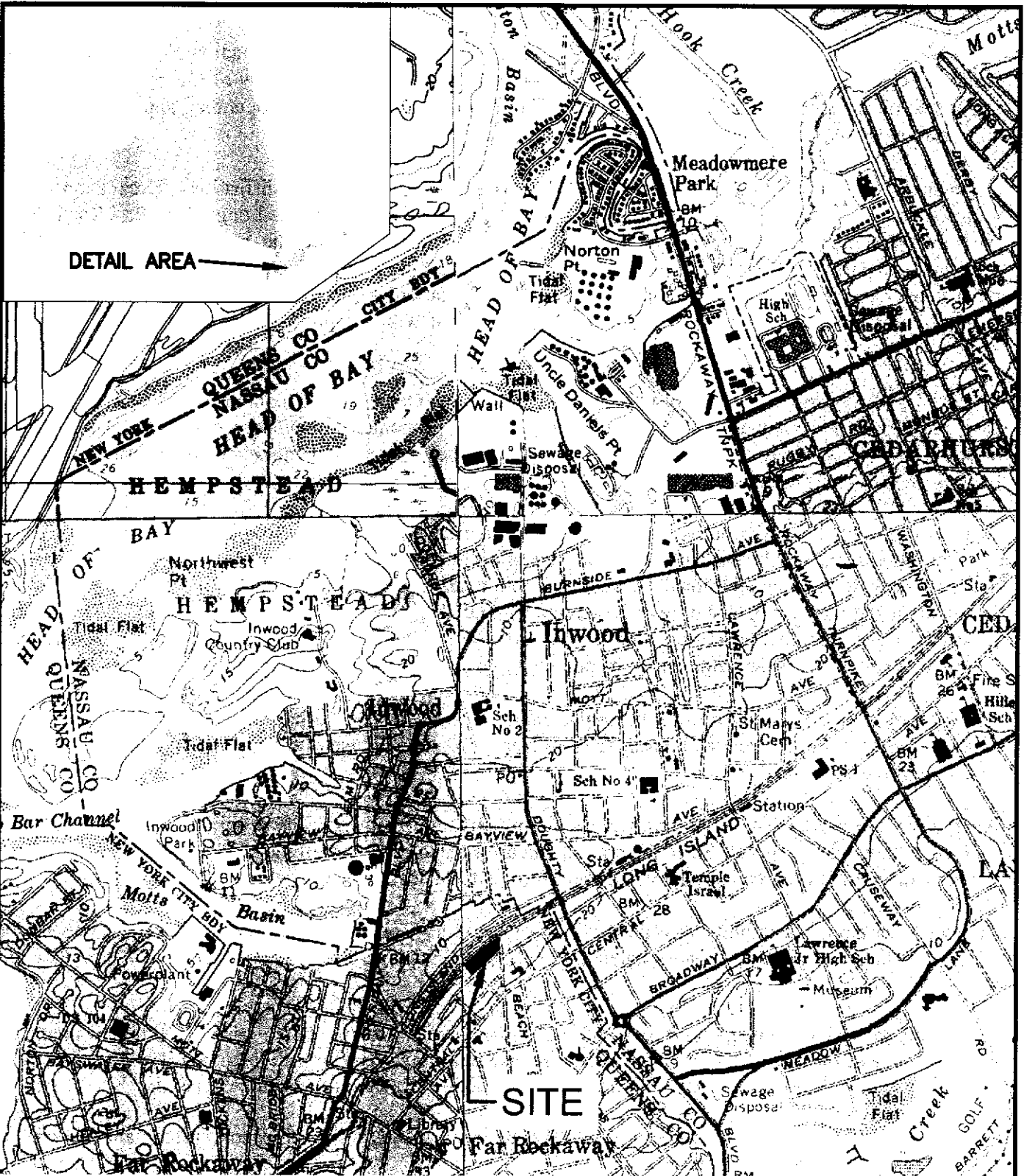


**NATIONAL GRID**  
**FORMER MGP SITE, FAR ROCKAWAY, NY**  
 DATE: 01/27/2012 DRAWN: RCW

**SUMMARY OF VISIBLE IMPACTS (0-15)**  
**AECOM**



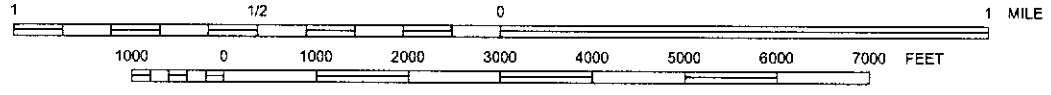
File: J:\Item\_Eng\Project Files\National Grid\Former MGP\CADD\04940-176\_Updates\04940-176-SL01.dwg Layout: Site Location Map User: vershobh Plotted: Jan 27, 2012 - 11:59am



DETAIL AREA →

SOURCE: USGS QUADRANGLES:  
LAWRENCE, 1979

SCALE 1:24000



**AECOM**

NATIONAL GRID  
FORMER MGP, FAR ROCKAWAY, NY

SITE LOCATION MAP

DATE: 01/27/12 DRWN: RCW

FIGURE 1

evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

Alternatives 2, 3 and 4 are all implementable but with varied degrees of difficulties. Excavation shoring required under Alternative 3 will require close coordination and approval by the Long Island Rail Road (LIRR) Authority. For alternative 2 with the significantly greater depth will be the most challenging to design. Alternative 4 will also have to address possible impacts in the subsurface due to the fluffing of the stabilized mass given the proximity to the LIRR. Potential implementation of the in-situ treatment at off-site locations under Alternatives 3 and 4 will require an access agreement with the property owner and/or LIRR for well installation, etc.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

The costs to implement Alternative 2 (total removal) are predictably higher than those of Alternatives 3 and 4. Though Alternative 2 will result in significant reduction in the volume of contaminated materials, however it will only provide minimal additional protection of public health and the environment over the selected remedy. The incremental increase in cost of over 70 percent compared to cost to implement the selected alternative is not justified by the marginal increase in protection. Alternative 4, though comparable in cost to the selected Alternative 3, it is not as desirable due to its potential to result in more disruption to the community.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

Alternative 2 will allow for any future use of the property. Alternatives 3 and 4 will allow the property to be used for commercial purposes. Since the present and anticipated future use of the site is commercial, Alternative 3 will be desirable as source material will be removed up to 15 feet bgs.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised.

Alternative 3 has been selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.

# RESPONSIVENESS SUMMARY

**K – Far Rockaway MGP  
Queens County, New York  
Site No. 241032**

The Proposed Remedial Action Plan (PRAP) for the Far Rockaway MGP Site, was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 18, 2012. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the Far Rockaway MGP Site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 6, 2012, which included a presentation of the remedial investigation and feasibility study (RI/FS) for the Far Rockaway MGP Site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 22, 2012.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

**COMMENT 1:** Are there any private water wells within the affected area?

**RESPONSE 1:** The groundwater plume extends only about 200 feet from the site boundary in a northwesterly direction, largely beneath the railroad tracks. The area is served by public water and there are no known private wells within the immediate area.

**COMMENT 2:** There is a car wash facility in the area that may be using groundwater for its operations.

**RESPONSE 2:** The Department is not aware of any car wash facility within the affected areas. Also, please see Response 1.

**COMMENT 3:** This looks like a very small site; will a tent be in use during excavation and will foam be used to suppress odor?

**RESPONSE 3:** Given the extent and nature of the contamination and the site configuration, we do not anticipate the use of a temporary structure or tent during excavation. Appropriate engineering controls will be in place to control vapors, odors, and dust. A community air monitoring plan (CAMP) will also be in place which will require continuous air monitoring for vapors, odors, and dust and set action levels to protect the health of the community. Work at the site will be suspended

if the established action levels are exceeded and will not resume until any additional controls are implemented, which would allow work to resume.

**COMMENT 4:** I have lived in this area for over 15 years, what kind of health related contamination have I been exposed to over the years?

**RESPONSE 4:** Exposure of the general community to site-related contaminants is unlikely because the area is serviced by a public water supply system that is not affected by this contamination and no one is known to be using the contaminated groundwater. In addition, surface soil is not impacted by the operation of the MGP at the site. Unless a person digs into the contaminated material present at depth starting approximately 5 feet below the groundwater surface, there will not be a complete exposure pathway.

**COMMENT 5:** You indicated in your presentation that there will be yearly costs of \$120,000. What will this money be used for?

**RESPONSE 6:** The proposed remedy includes a monitoring program to determine the effectiveness of the proposed remedy for a period of 30 years. The monitoring program will include groundwater plume monitoring, site inspection to ensure that cap remains in place and effective, and reporting of any mechanical or physical components of the remedy. The estimated \$120,000 yearly costs will be expended for this purpose, however, the monitoring needs will be assessed periodically and the potential exists that the annual cost will decrease with time (e.g., fewer monitoring points).

**COMMENT 7:** Is there any health related issues given frequent overflow of the storm drain in the area?

**RESPONSE 7:** No. There is no surface contamination associated with the operation of the former MGP; consequently surface runoff into the storm drain is not impacted by the site.

**COMMENT 8:** Will the remedy impact the railroad?

**RESPONSE 9:** No. The railroad will remain operational during the remedial activities at the site.

**COMMENT 10:** How will this impact the children in the neighborhood during remediation?

**RESPONSE 10:** As discussed in Response 3, engineering controls and a CAMP will be in place to monitor any emissions resulting from the site activities and insure appropriate controls are in place for the duration of the remedial action. These will allow the remedy to be implemented in a manner which avoids impacts to children and the general public.

The following comments were received from Michael Greene (nearby resident) in an email dated March 21, 2012:

**COMMENT 11:** How will the cleanup be paid for by National Grid?

**RESPONSE 11:** The project will be paid for by National Grid and will be included in their operating costs which are regulated by the Public Service Commission.

**COMMENT 12:** The project is unnecessary and the cost estimate to clean-up the contamination is very expensive.

**RESPONSE 12:** The remedial project is necessary because contamination from the former Manufactured Gas Plant waste was discovered to be disposed of or discharged at this site. The site soils and groundwater have been contaminated above 6 NYCRR 375 Soil Cleanup Objectives and 6NYCRR 703 Ambient Water Quality Standards. The cost estimate is typical for these types of sites that require excavation and disposal of contaminated material at a permitted off-site facility.

**COMMENT 13:** What is the work that will be performed for the estimated annual cost of \$120,000?

**RESPONSE 13:** See Response 6.

**COMMENT 14:** I recommend the first alternative, which is No Action, be selected.

**RESPONSE 14:** The Department evaluated the results of the remedial investigation and all the alternatives and determined that Alternative 3 will provide the most balanced and cost effective alternative to address the site contamination.

**COMMENT 15:** The level of involvement by the state appeared to be excessive given the turn out by the public for the meeting.

**RESPONSE 15:** Comment noted.

**APPENDIX B**  
**Administrative Record**



**Administrative Record**  
**K – Far Rockaway Former MGP Site**  
**Far Rockaway, Queens County, New York**  
**Site No. 241032**

1. Remedial Investigation Report, Far Rockaway Former MGP Site, prepared by AECOM, Inc., August 2011.
2. Feasibility Study Report, Far Rockaway Former MGP Site, prepared by AECOM, Inc., December, 2011.
3. Far Rockaway Former MGP Site, Preliminary Site Assessment Report, prepared by Paulus, Sokolowski and Sartor, Engineering PC, March 2003.
4. Remedial Investigation Work Plan, Far Rockaway Former Manufactured Gas Plant Site, prepared by The RETEC Group, Inc, June 2007.
5. Proposed Remedial Action Plan, K Far Rockaway MGP, prepared by the NYSDEC, February 2012.
6. Order on Consent and Administrative Settlement Index No. A2-0552-0606, executed February 22, 2007.