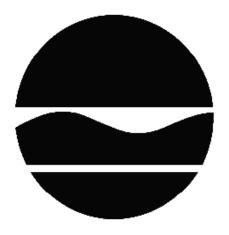
RECORD OF DECISION

K - Front St. Station State Superfund Project Brooklyn, Kings County Site No. 224063 March 2018



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

DECLARATION STATEMENT - RECORD OF DECISION

K - Front St. Station State Superfund Project Brooklyn, Kings County Site No. 224063 March 2018

Statement of Purpose and Basis

This document presents the remedy for the K - Front St. Station 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 - Front St. Station 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) Cover System: A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with a minimum of six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.
- 2) 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 an
 annual certification of institutional and engineering controls in accordance with Part 3751.8(h)(3);

- allows the use and development of the controlled property for restricted residential, commercial and industrial use 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 the NYC Department of Health; and
- requires compliance with the Department-approved Interim Site Management Plan.
- 3) An Interim Site Management Plan (ISMP) 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 2 above.

Engineering Controls: The Cover System discussed in Paragraph 1 above.

The ISMP will include, but may not be limited to:

- an Excavation Plan which details the provisions for management of limited excavations in areas of remaining contamination;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for MGP contamination at the site, including removal and/or treatment of any source areas to the extent feasible. This removal or treatment will be sufficient in scope to address the site as a source of on-site and potentially of off-site groundwater contamination. The presumptive remedy for MGP contamination will be excavation of both former holder tank structures and MGPrelated source material, unless an alternative, equivalent remedy is developed based on new information. If a remedy is determined to be necessary to address sources of non-MGP contamination present at the site, this will be evaluated separately for further action. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 1 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);

- provisions for the management and inspection of the identified engineering controls; and
- maintenance of site access controls and Department notification.

In addition, the ISMP will include:

- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- the steps necessary for the annual 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:
 - a schedule of monitoring and frequency of submittals to the Department; and
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- 4) Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:
 - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
 - Reducing direct and indirect greenhouse gas and other emissions;
 - Increasing energy efficiency and minimizing use of non-renewable energy;
 - Conserving and efficiently managing resources and materials;
 - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

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 15, 2018

Date

Michael J. Ryan, P.E., Assistant Director Division of Environmental Remediation

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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:

Brooklyn Community Board 2 Attn: Robert Perris 350 Jay Street, 8th Floor Brooklyn, NY 11201 Phone: 718-596-5410

A public meeting was also conducted. At the meeting, the findings of the site characterization

(SC) 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 Front Street Holder Station site is comprised of one parcel of land located at #218 Front Street in the Vinegar Hill neighborhood of Brooklyn, Kings County. The site is approximately 1.13 acres in size, identified as Block 55, Lot 20, and is bordered by Front Street to the north, by Gold Street to the east, by York Street to the south, and by Bridge Street to the west. The current owner of the site property is Great Front Realty Corp.

Site Features: The main site feature is a one-story building at #218 Front Street, which is used as a warehouse. There are also three open-air buildings at the south side of the property with an address of 171 York Street. The three open-air buildings are actively used for lumber and building material storage. These buildings cover approximately 90 percent of the site. The rest of the property is covered with pavement and/or, locally, gravel, and used for loading and unloading of materials in the lumber yard.

Current Zoning and Land Use: The site is currently zoned for C2-4/R6A, which allows for residential, commercial and light industrial uses. The actual use is commercial with an active warehouse, and lumber yard. The nearest residential area is directly adjacent to the site at the northwest and southeast site boundaries.

Past Use of the Site: The site was owned and/or operated as a Manufactured Gas Plant (MGP) holder station by The Brooklyn Gas Light Company from approximately 1867 to November 1895. Following incorporation of The Brooklyn Union Gas Company in September 1895, the site was then owned and operated by this company until 1935. The station operated solely for gas distribution, and no gas production facilities were present at the site. The site consisted of two water-sealed gas holders, identified as Holder No. 4 and Holder No. 5. The first gas holder (No. 4) was completed circa 1867, and the second gas holder (No. 5) was constructed around 1890 in the southwestern portion of the site. Both holders and all associated MGP buildings were

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removed between 1935 and 1938. The property was used as a parking lot until it was sold in 1951. Subsequent use has been, and continues to be, as a lumberyard and warehouse.

Site Geology and Hydrogeology: The site is underlain by varying amounts of fill which is underlain by natural deposits of fine to coarse sand with gravel and cobbles. Material within the holder tanks is primarily fill consisting of sands and gravel and varying amounts of brick, concrete, and wood.

Regional groundwater occurs at a depth of approximately 40 feet below grade with flow to the north towards the East River. Perched groundwater was encountered within the Holder No. 5 tank, and is not hydraulically connected to the regional groundwater.

A site location map is attached as Figure 1 (orthophoto) and 2 (site plan).

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) were evaluated.

A comparison of the results of the SC 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.

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

National Grid

The Department and The Brooklyn Union Gas Company d/b/a KeySpan Energy Delivery New York; KeySpan Gas East Corporation d/b/a KeySpan Energy Delivery Long Island entered into an Order on Consent, as respondents, on March 4, 2007 (Index A2-0552-0606). The Order, including subsequent modifications, obligates the respondents to implement a full remedial program for this and 31 other former MGP and Holder Station sites.

SECTION 6: SITE CONTAMINATION

6.1: **Summary of the Site Characterization**

A Site Characterization (SC) has been conducted. The purpose of the SC was to define the

RECORD OF DECISION March 2018 K - Front St. Station, Site No. 224063 Page 7 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 SC Report.

The following general activities are conducted during an SC:

- Research of historical information,
- 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.

The analytical data collected on this site includes data for:

- groundwater
- soil

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the SC 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: SC 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 SC Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benzene toluene ethylbenzene xylene (mixed) 1,2,4-trimethylbenzene isopropylbenzene naphthalene 1,2-dichloroethene trichloroethene (TCE) tetrachloroethene (PCE) benzo(a)anthracene benzo(a)pyrene benzo(b)fluoranthene dibenz[a,h]anthracene indeno(1,2,3-CD)pyrene benzo[k]fluoranthene chrysene cyanides(soluble cyanide salts) arsenic chromium lead mercury 1,3,5-trimethylbenzene

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 SC.

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.

Based upon investigations conducted to date, which included sampling of soil and groundwater for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOC), and inorganics (metals and cyanide), the primary contaminants of concern are benzene, toluene, ethylbenzene and xylene (together known as BTEX), 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene; polycyclic aromatic hydrocarbons (PAHs); and inorganics.

Soil - The subsurface soil on-site exceeded the unrestricted soil cleanup objectives (SCOs) for petroleum related VOCs, metals and SVOCs only inside the holder tanks (See Figure 3). However, sampling of subsurface soil was limited due to inability to access much of the property with a drill rig, and a source area of higher contaminant concentrations may be present beneath the buildings. The soil within the holder tanks had concentrations of naphthalene with a maximum of 280 parts per million (ppm), and xylene with a maximum of 120 ppm. (See Figure 4, soil which exceeds restricted residential SCOs, and Figure 5, soil which exceeds commercial SCOs).

There were no detections of chlorinated solvents or total cyanide above unrestricted SCOs in soils either on- or off-site.

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The PAHs which exceeded unrestricted SCOs were benz(a)anthracene (maximum concentration of 8.4 ppm), benzo(a)pyrene (maximum of 8.8 ppm), and benzo(b)fluoranthene (maximum of 8.2 ppm), chrysene (maximum of 9.1 ppm), all have an SCO of 1 ppm; dibenz(a,h)anthracene (SCO of 0.33 ppm) had a maximum concentration of 1.9 ppm; and indeno(1,2,3-cd)pyrene (SCO of 0.5 ppm) had a maximum concentration of 6.7 ppm. Adjacent to the site, the soils only slightly exceeded the unrestricted SCOs, which is likely more indicative of historic, urban fill.

The only inorganics of concern in subsurface soils to exceed unrestricted SCOs were lead (SCO of 63 ppm) at a maximum concentration of 926 ppm, and mercury (SCO of 0.18 ppm) with a maximum of 4.0 ppm.

The current use of the property as a lumber yard prevented the collection of surface soil samples that would have been representative of past holder station operations from the small area where soil is exposed. However, since the working level of the former holder was below the current ground elevation, surface soil contamination related to the holder station operation is not expected.

Groundwater - Samples collected from monitoring wells on-site (water contained inside the Holder No. 5 tank) exceeded groundwater quality standards (GWQS) for benzene at 210 parts per billion (ppb) with a standard of 1 ppb, toluene at 55 ppb (standard of 5 ppb), ethylbenzene at 110 ppb (standard of 5 ppb), xylenes at 210 ppb (standard of 5 ppb), naphthalene at 70 ppb (standard 10 ppb), 1,2,4-trimethylbenzene at 6 ppb (standard of 5 ppb), isopropylbenzene at 10 ppb (standard of 5 ppb), five PAHs (benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and indeno(1,2,3-cd)pyrene; all with an standard of 0.002 ppb) ranging from ND to 1.8 ppb, cyanide at a 287 ppb (standard of 200 ppb), and three metals consisting of arsenic at 38 ppb (standard of 25 ppb), chromium at 130 ppb (standard of 50 ppb), and lead at 5,210 ppb (standard of 25 ppb). The groundwater sampled from one of four off-site monitoring wells, only, contained chlorinated VOCs (1,2-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE)) and naphthalene exceeding GWQS. (See Figure 6, Groundwater Exceedances). It should be noted that the chlorinated solvents were not used during the holder station operations, and are not considered related to the former holder station operations.

Soil vapor sampling has not been conducted at the site due to existing infrastructure and operating businesses.

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*.

Persons who enter the site could contact contaminants in the soil by digging or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by the groundwater. Volatile organic compounds in soil vapor (air spaces within the soil) may move into overlying buildings and

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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 people to inhale site contaminants in indoor air due to soil vapor intrusion within the on-site buildings. Access to conduct the recommended sampling within the on-site structures has been impeded due to existing infrastructure and operating businesses. Environmental sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.5: **Summary of the Remediation Objectives**

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: 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.

RECORD OF DECISION March 2018 K - Front St. Station, Site No. 224063 Page 11 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 Interim Site Management with Institutional Controls remedy.

The estimated present worth cost to implement the remedy is \$219,000. The cost to construct the remedy is estimated to be \$129,000 and the estimated average annual cost is \$3,000.

The elements of the selected remedy are as follows:

- 1) Cover System: A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with a minimum of six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.
- 2) 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 an annual 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 restricted residential, commercial and industrial use 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 the NYC Department of Health; and
 - requires compliance with the Department-approved Interim Site Management Plan.
- 3) An Interim Site Management Plan (ISMP) 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 2 above.

Engineering Controls: The Cover System discussed in Paragraph 1 above.

The ISMP will include, but may not be limited to:

- an Excavation Plan which details the provisions for management of limited excavations in areas of remaining contamination;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for MGP contamination at the site, including removal and/or treatment of any source areas to the extent feasible. This removal or treatment will be sufficient in scope to address the site as a source of on-site and potentially of off-site groundwater contamination. The presumptive remedy for MGP contamination will be excavation of both former holder tank structures and MGP-related source material, unless an alternative, equivalent remedy is developed based on new information. If a remedy is determined to be necessary to address sources of non-MGP contamination present at the site, this will be evaluated separately for further action. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 1 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- provisions for the management and inspection of the identified engineering controls;
- maintenance of site access controls and Department notification.

In addition, the ISMP will include:

descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

RECORD OF DECISION March 2018 K - Front St. Station, Site No. 224063 Page 13 • the steps necessary for the annual 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:

- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- 4) Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;
 - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
 - Reducing direct and indirect greenhouse gas and other emissions;
 - Increasing energy efficiency and minimizing use of non-renewable energy;
 - Conserving and efficiently managing resources and materials;
 - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Site Characterization (SC) 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 for which contamination was identified, 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 and cyanide). 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 4 and Section 6.1.1 are also presented.

Waste/Source Areas

As described in the SC 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 were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Coal tar related contaminants were identified at the site within the former MGP structures, which are two gas holder tanks.

The production of manufactured gas created waste products which are resistant to natural decay and can result in potential impacts to public health and the environment. The primary waste was an oily liquid known as coal tar, which formed as a condensate during storage prior to distribution. The coal tar contains certain hazardous substances in the VOC and SVOC chemical classes. Specific VOCs of concern are benzene, toluene, ethylbenzene and xylenes (BTEX). Specific SVOCs of concern are polycyclic aromatic hydrocarbons (PAHs) such as: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene; as well as naphthalene.

Evidence of potential MGP-related impacts were found at the site in soil and limited groundwater samples, at one offsite groundwater monitoring well location, and are potentially present within and adjacent to the former MGP gas holder structures. However, these areas could not be fully investigated due to the presence of several occupied buildings on the site. The impacted areas identified will be addressed in the remedy selection process.

Groundwater

Groundwater samples were collected to assess groundwater conditions on and off-site. Sampling results indicate that benzene, toluene, ethylbenzene and xylene (BTEX), isopropylbenzene, and 1,2,4-trimethylbenzene (VOCs); naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and indeno(1,2,3-cd)pyrene (SVOCs); and arsenic, chromium, lead and total cyanide (inorganics) exceed standards or guidance values at the site. Only naphthalene was detected above standards at one offsite location.

Several chlorinated solvents, including 1,2-dichloroethene, tetrachloroethene and trichloroethene were detected in samples collected from one off-site monitoring well. These compounds are not associated with the former holder station operations.

There were also seven other inorganic compounds that exceeded the groundwater standards in both on-site and off-site monitoring wells. These compounds were barium, copper, iron, magnesium, manganese, nickel and sodium, and they are not associated with the former holder station operations.

Table #1 – Groundwater (Onsite and Offsite-see notes)

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG				
VOCs							
Benzene	ND – 210	1	2 of 6				
Toluene	ND – 55	5	2 of 6				
Ethylbenzene	ND – 110	5	2 of 6				
Xylene (total isomers)	ND – 210	5	2 of 6				
1,2,4-Trimethylbenzene	ND – 6	5	1 of 6				
Isopropylbenzene	ND – 10	5	1 of 6				
Naphthalene	ND – 70	10	2 of 6				
1,2-Dichloroethene (total) ^c	ND – 9.5	5	1 of 6				
1,2-Dichloroethene (trans) ^c	ND - 7.2	5	1 of 6				
Tetrachloroethene ^c	ND – 14	5	1 of 6				
Trichloroethene ^c	ND – 7.1	5	1 of 6				
SVOCs							
Benzo(a)anthracene	ND – 1.7	0.002	2 of 6				
Benzo(b)fluoranthene	ND – 1.7	0.002	2 of 6				
Benzo(k)fluoranthene	ND – 1.0	0.002	2 of 6				
Chrysene	ND – 1.8	0.002	2 of 6				
Indeno(1,2,3-cd)pyrene	ND – 1.8	0.002	1 of 6				
Naphthalene	ND - 140	10	3 of 6				
Inorganics							
Arsenic	ND – 38	25	1 of 6				
Cyanide (total)	ND – 287	200	1 of 6				
Chromium	ND – 130	50	1 of 6				
Lead	ND - 5,210	25	1 of 6				

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

Based on the findings of the SC, the presence of MGP-related wastes has resulted in the contamination of groundwater within the holder tanks. The site contaminants that are considered to be the primary contaminants

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).

c- Detected in one offsite monitoring well

of concern which will drive the future remediation of groundwater to be addressed by the remedy selection process are: benzene, toluene, ethylbenzene, xylene, naphthalene and total cyanide.

Soil

Subsurface soil samples were collected and analyzed for VOCs, SVOCs, and inorganics during the site characterization (SC) to determine the nature and extent of impacts to soil as a result of the former MGP operations. These samples were collected from 0 to 38 feet below ground surface.

Total xylene was the only VOC that exceeded both the unrestricted and restricted residential SCOs on site. There were no VOCs that exceeded the unrestricted SCOs off-site. Eight individual PAH compounds (benzo(a)anthracene, benzo(a)pyrene benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene) exceeded both unrestricted and restricted residential SCOs.

Inorganic compounds chromium and lead exceeded both unrestricted and restricted residential SCOs.

Table # 2 – Soil (On-site)

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCG ^b (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG ^c (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Xylene (total)	ND - 120	0.26	1 of 17	1.6 ^(d)	2 of 17
SVOCs					
Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene	ND - 8.4 ND - 8.8 ND - 8.2 ND - 3.4	1.0 1.0 1.0 0.8	9 of 17 9 of 17 9 of 17 7 of 17	1.0 1.0 1.0 1.7 ^(d)	9 of 17 9 of 17 9 of 17 3 of 17
Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene Naphthalene	ND - 9.1 ND - 1.9 ND - 6.7 ND - 280	1.0 0.33 0.5 12	8 of 17 6 of 17 11 of 17 2 of 17	1.0 ^(d) 0.33 0.5 12 ^(d)	8 of 17 6 of 17 11 of 17 2 of 17
Inorganics					
Chromium Lead	ND - 75 ND - 926	30 63	1 of 17 8 of 17	19 ^(d) 400	1 of 17 5 of 17

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 Restricted Residential Use, unless otherwise noted.

d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

Based on the findings of the SC, the presence of MGP-related wastes has resulted in the contamination of soil within the holder tanks. 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 xylene, PAHs, and lead.					

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.

Alternative 2: Interim Site Management with Institutional Controls

The Interim Site Management with Institutional Controls Alternative requires both institutional and engineering controls for the site. This alternative includes institutional controls, in the form of an environmental easement and an interim site management plan, and an engineering control in the form of a site cover, necessary to protect public health and the environment from any contamination identified at the site.

This alternative will include the following components:

- A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with a minimum of six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.
- Placement of an institutional control in the form of an environmental easement to restrict the use of the on-site property to restricted residential uses and restrict the use of groundwater.
- Development of an Interim Site Management Plan (ISMP) to include institutional controls to address soil, groundwater and soil vapor contamination; and engineering controls to maintain the existing site cover (buildings and soil). This plan will include a provision for further investigation and remediation should large scale redevelopment occur, if the existing structures are demolished, or if the subsurface is otherwise accessible. Excavation or construction of any on site structures will be prohibited until such time as the above-stated further investigation and remediation has been completed. A provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion, will also be included. The presumptive remedy for MGP contamination will be excavation of both former MGP structures (if deemed impacted) and MGP-related source material, unless an alternative, equivalent remedy is developed based on new information.

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

Present Worth:	\$219,000
Capital Cost:	\$129,000
Annual Costs:	\$3.000

Alternative 3: Excavation to Pre-Release Conditions

Alternative 3 is designed as a site-wide remedy to restore the site soils to pre-release conditions. All soils containing site contaminants at levels higher than specified in the Unrestricted SCOs would be excavated using conventional excavating equipment and taken off site in dump trucks for treatment and/or disposal. The excavation would be backfilled with uncontaminated soils from off-site sources.

Because soil exceedances were detected in samples collected at depths up to 30 feet below ground surface, the volume of soil to be excavated would be very large, and would require demolition of all on-site structures. An estimated 55,000 cubic yards of soil would need to be excavated and trucked off site for thermal treatment and/or landfilling depending on the level of contamination contained.

After removal of the subsurface soils, end-point samples would be collected to confirm that all soils above the unrestricted SCOs have been removed. The excavation would then be backfilled with general fill that meets unrestricted SCOs.

Exhibit C

Remedial Alternative Costs

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
No Action	0	0	0
Site Management with ICs	129,000	3,000	219,000
Excavation to Pre-Release Conditions	NE	NE	NE

NE = Not Evaluated due to infeasibility of performing this alternative under current site conditions. (See Exhibit D).

Exhibit D

SUMMARY OF THE SELECTED REMEDY

The Department has selected Alternative 2, Interim Site Management with Institutional Controls, as the remedy for this site. Alternative #2 would achieve the remediation goals for the site by protecting human health and the environment from exposure to impacted media. The elements of this remedy are described in Section 7. The selected remedy is depicted in Figure 7.

Basis for Selection

The selected remedy is based on the results of the investigation completed to date and the existing structures onsite which hinder the ability to implement a full investigation and remedy. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375.

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

1. <u>Protection of Human Health and the Environment.</u> 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 or other controls at the site, and thus will not provide any additional protection to human health and the environment compared to 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.

Alternative 2 (Interim Site Management with Institutional Controls) will protect human health and the environment first through the institutional control and ISMP provisions that minimize exposures, restrict groundwater use and require excavation protocols under current site conditions. In the long term, environmental protection will be provided by further investigation if the site buildings are removed or vacated and remediation when the site becomes accessible.

Alternative 3 also meets this threshold criterion since all impacted soil will be removed from the site.

2. <u>Compliance with New York State Standards, Criteria, and Guidance (SCGs).</u> 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.

Although Alternative 2 will not take immediate actions to address SCGs, the environmental easement and provisions in the ISMP will provide the framework for further investigation and remedial work should the site buildings be demolished, which would satisfy this criterion in the long term.

Alternative 3 will achieve compliance with the SCGs, but cannot be implemented until such time that the buildings are removed.

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

3. <u>Long-term Effectiveness and Permanence</u>. 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.

For Alternative 2, site management will be effective in the long term once the provisions for performing remedial actions are implemented when the site becomes accessible. The placement of an environmental easement and implementation of the ISMP, will provide a reliable level of control of the site, and will provide the framework for a permanent remedy when the site becomes accessible.

Alternative 3 will be effective over the long term since the maximum amount of material would be removed from the site, and thus would not require any long-term monitoring.

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

Alternative 2 will control potential exposures through the use of institutional and engineering controls (site cover) and will not in the near term reduce the toxicity, mobility or volume of contaminants remaining in place. The ultimate degree of reduction will depend on the specific remedy that is implemented when the site becomes accessible.

Alternative 3 would remove all of the contaminated soil from the site, as well as any groundwater collected during dewatering operations.

5. <u>Short-term Impacts and Effectiveness.</u> 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.

Alternative 2 would not have any short-term impacts, and would effectively protect human health in the short term through the implementation of institutional controls at the site.

Alternative 3 will have the greatest short-term impact due to the need to demolish the structures present at the site and relocate the current active business from the property. Significant efforts will also have to be undertaken during implementation to minimize impacts to human health and the environment with respect to air emissions, odor control, noise, dust suppression, and transportation/traffic in the local community. Excavation and off-site transport activities will generate noise associated with construction machinery, and truck traffic through the surrounding community as contaminated soils are trucked out and backfill materials are trucked in. Due to the depth of soil removal, extensive excavation support, such as pile and lagging, will need to be installed.

6. <u>Implementability</u>. The technical and administrative feasibility of implementing each alternative are 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.

Alternative 2 is readily implementable as it initially is an administrative task. However, it will require significant oversight and interaction with the current owners to ensure the ISMP is implemented and conditions of the environmental easement are complied with. Future actions are expected to be implementable, without significant short-term impacts, once the buildings have been removed.

Alternative 3 is not readily implementable as National Grid is not the property owner and this alternative requires significant disruption to the ongoing business at the site. An agreement between the two parties would have to be reached prior to any work starting and the existing businesses on the property would have to be closed and the buildings removed before further investigation and remediation could begin. The use of standard construction materials and machinery provides the appearance that this alternative is technically and administratively feasible. However, the proposed depth of soil removal and the support of excavation required to be engineered and installed makes this alternative extremely challenging.

7. <u>Cost-Effectiveness</u>. 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.

Alternative 2 is cost effective.

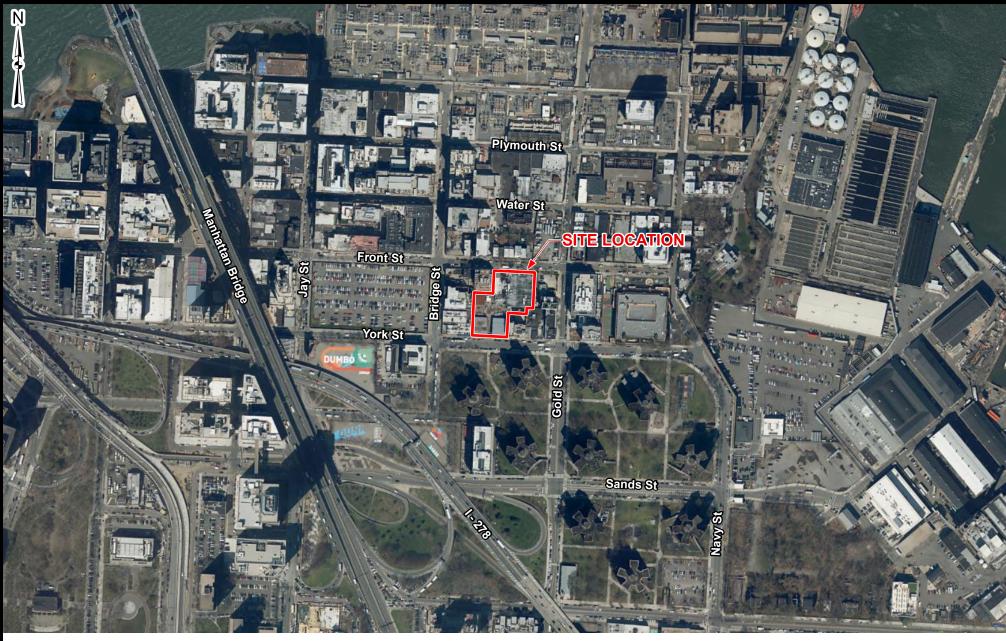
A cost estimate was not developed for Alternative 3 because it is not considered to be implementable.

8. <u>Land Use.</u> 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.

For the current use of the site as an active warehouse and lumber yard, the institutional and engineering controls of the selected remedy are protective of public health. Since the anticipated future use of the site may include restricted residential, Alternative 2 provides for the installation of a site cover, additional investigation, and remediation as necessary, to achieve restricted residential standards when the site use changes and large-scale redevelopment is planned.

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. <u>Community Acceptance.</u> Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary was prepared that describes public comments received and the manner in which the Department will address the concerns raised. Alternative 2 is being selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.



SOURCE:
- NYSDOP High Resolution imagery 2016

400 0 400 Feet

AECOM

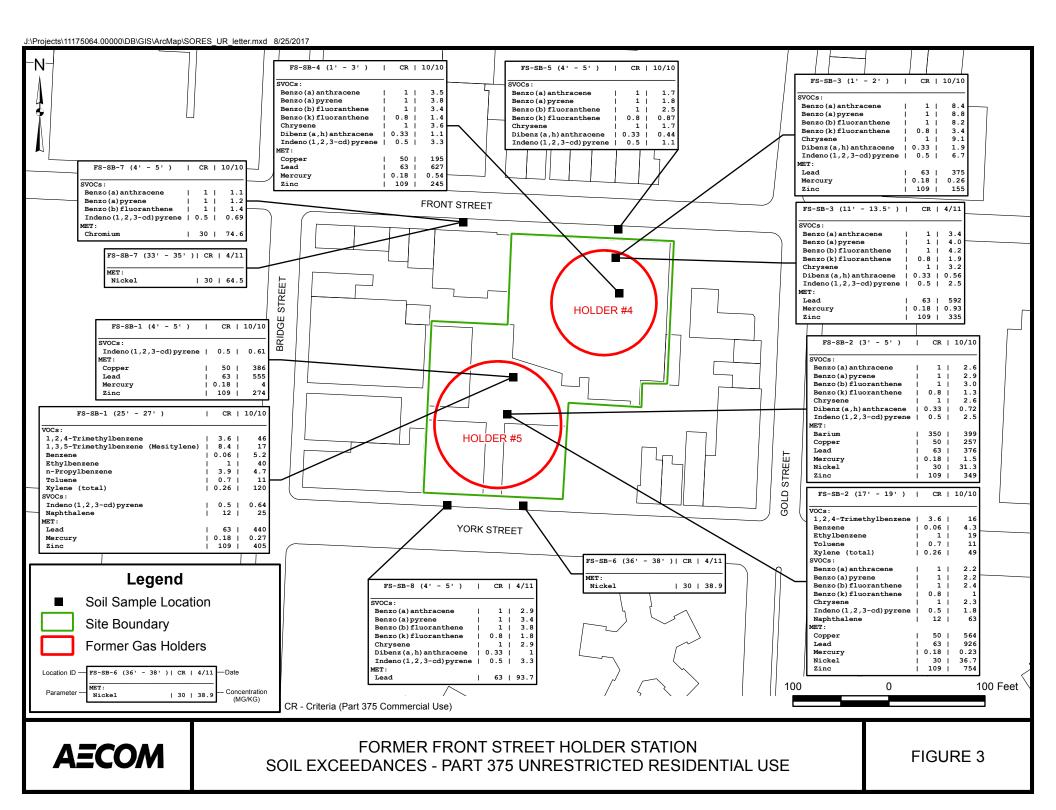
FORMER FRONT STREET HOLDER STATION SITE ORTHOPHOTO

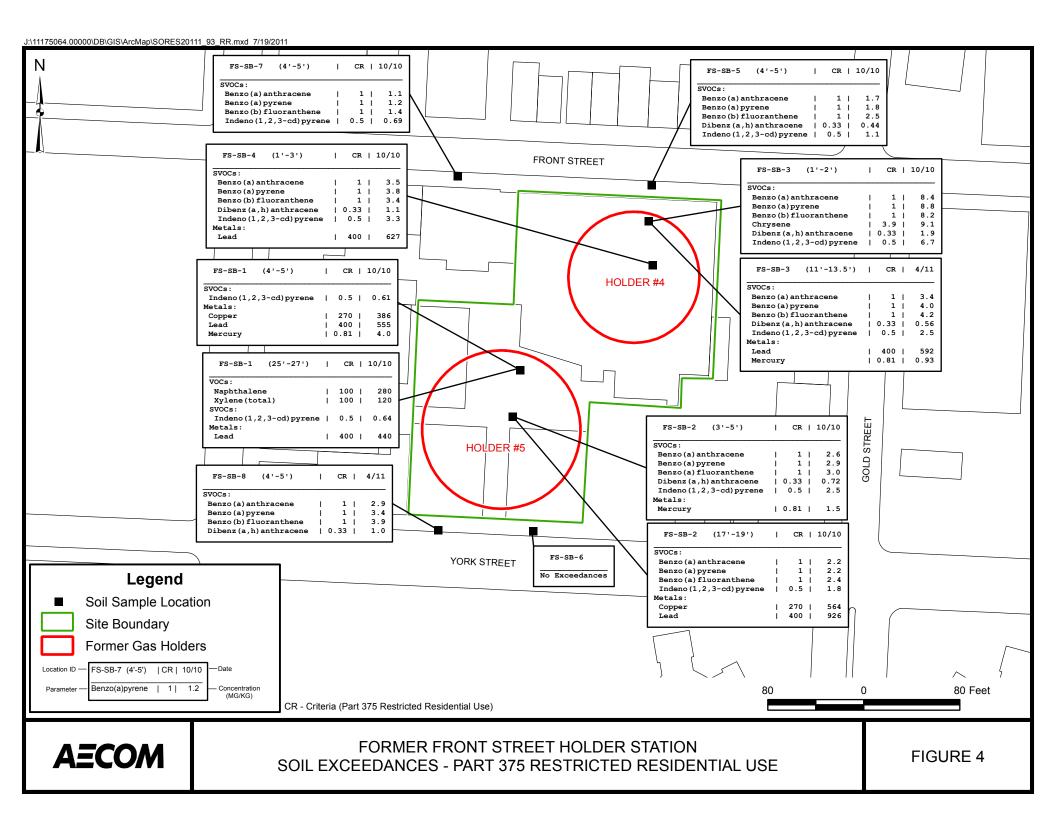
FIGURE 1

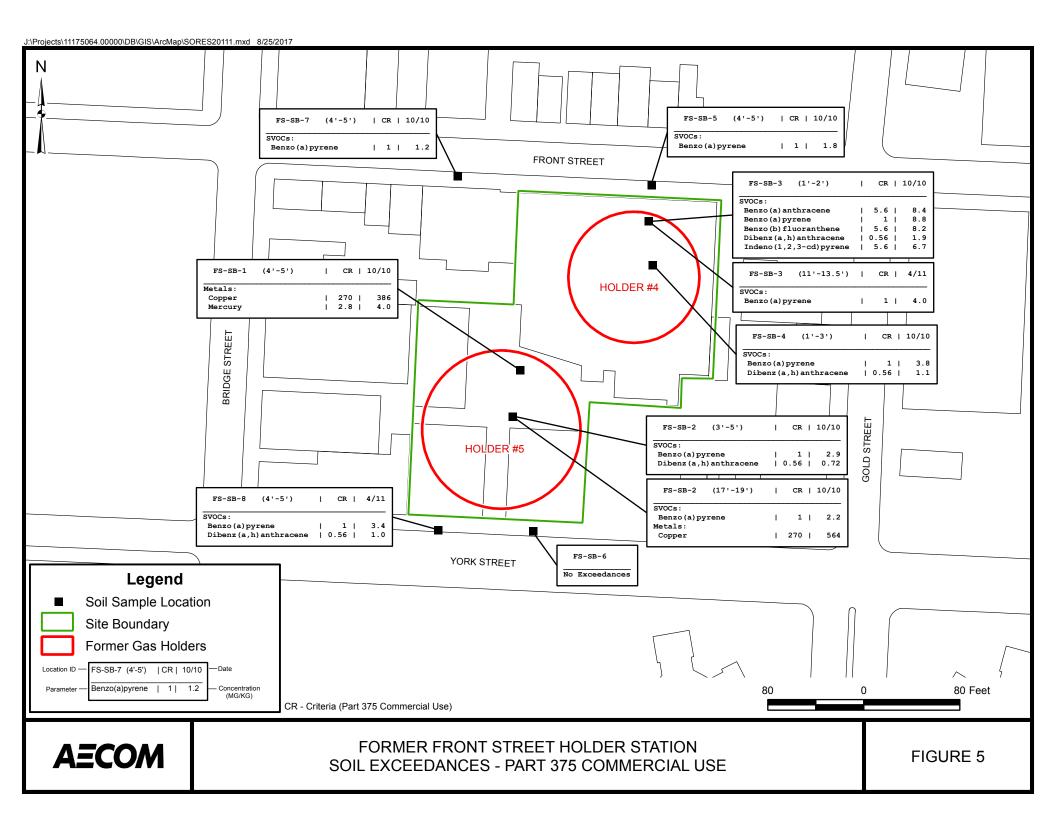
AECOM

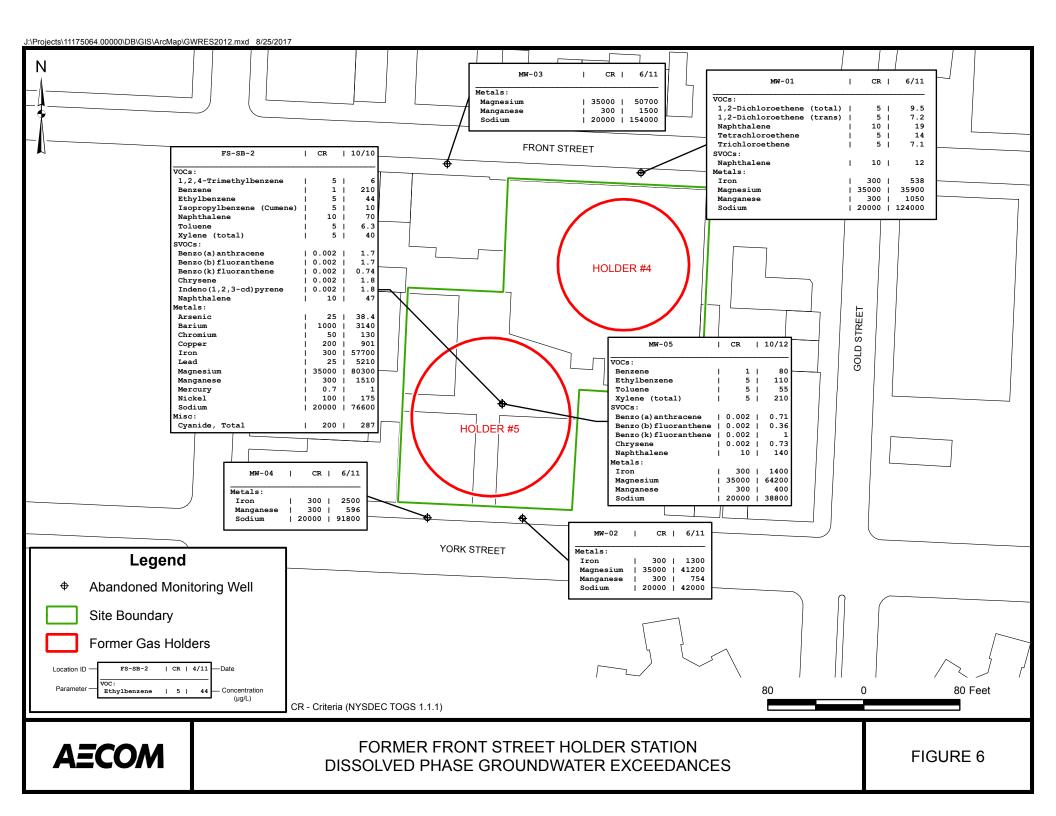
FRONT STREET FORMER GAS HOLDER SITE SITE PLAN

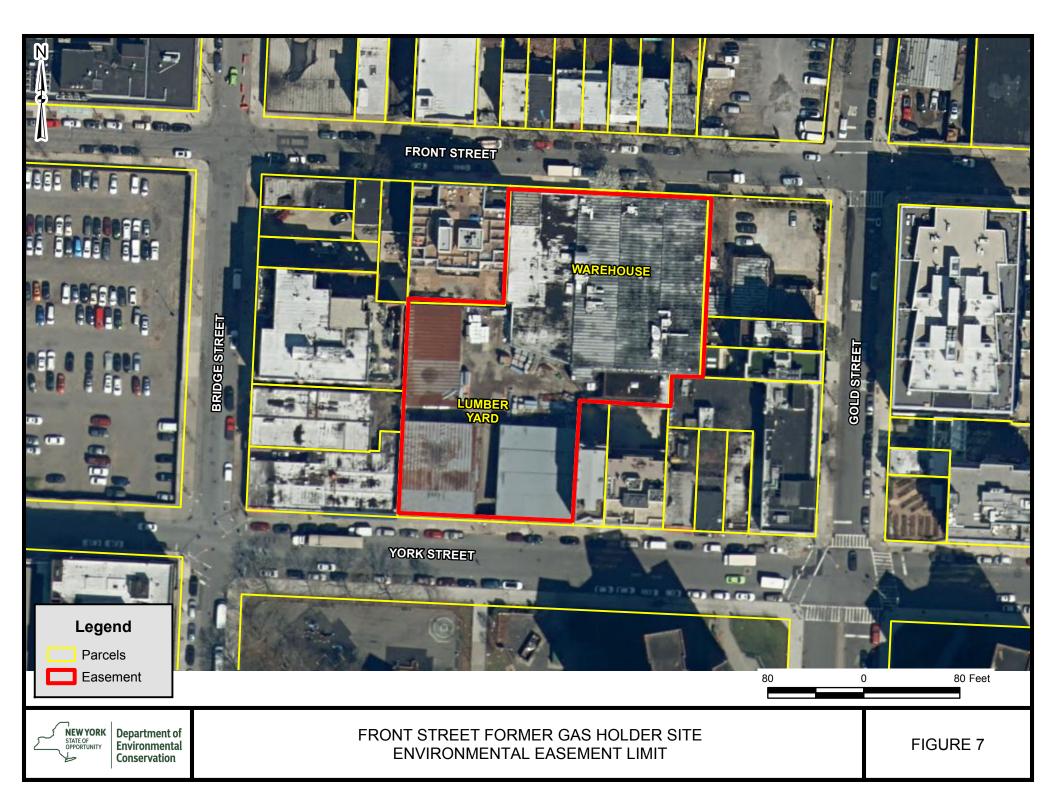
FIGURE 2











APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

K – Front Street Holder Station State Superfund Project Brooklyn, Kings County, New York Site No. 224063

The Proposed Remedial Action Plan (PRAP) for the K-Front Street Holder Station 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 October 11, 2017. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the K-Front Street Holder Station 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 October 18, 2017, which included a presentation of the site characterization for the K-Front Street Holder Station 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 November 11, 2017.

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:

The following comments were received during the October 18, 2017 public meeting:

COMMENT 1: How soon after the buildings were demolished could the investigation begin?

RESPONSE 1: The Department expects that National Grid would be in communication with the property owner/developer before and during this process, so that an expedited investigation schedule could be agreed upon.

COMMENT 2: Why did it take so long to get to this point?

RESPONSE 2: The process involves preparation of work plans and subsequent reports by National Grid, which are all reviewed and commented on by both the Department and the NYS Department of Health (NYSDOH). Data that is collected during these investigations needs to be organized and presented in such a way that the review is clear and concise. Also, since this property is privately owned, and access agreement needed to be secured between National Grid and the property owner, as well as an agreed upon schedule so that the field activities did not interfere with existing businesses on the property.

COMMENT 3: Is a developer pressuring the Department to have this meeting now?

RESPONSE 3: The Department has not had any formal discussions regarding redevelopment of the property.

COMMENT 4: What is the difference between the restricted residential use and residential use? Across the street are row houses (townhouses), would they be allowed?

- **RESPONSE 4:** Residential use allows for single family housing, while restricted residential use requires common ownership or a single owner/managing entity of the site. Since the row houses are individually owned, they would be considered single family housing, and would not be allowed.
- **COMMENT 5:** Who is responsible for any other impacts at the site (non-MGP related material)?
- **RESPONSE 5:** The property owner and/or developer would be responsible for any other impacts found at the site not co-mingled with MGP-related material.
- Joshua M. Levy, Attorney, Tannenbaum Helpern Syracuse and Hirschtritt LLP, representing Great Front Realty Corp. (property owner), submitted a letter (dated November 6, 2017) which included the following comments:
- **COMMENT 6:** Section 4: Land Use and Physical Setting. The first paragraph in this section provides that "alternatives (or an alternative) that restrict(s) the use of the site to commercial use ... is being evaluated." This does not appear to be accurate, as none of the three alternatives contemplate restricting the property to commercial use.
- **RESPONSE 6:** This is an error the Department has acknowledged and corrected in the Record of Decision (ROD). The corrected text will refer to restricted residential use.
- **COMMENT 7:** Section 6.3: Summary of Environmental Assessment. The fourth paragraph in this section provides that "a source area of higher contaminant concentrations may be present beneath the buildings." This appears to be speculative and is not supported by the data. We respectfully request that it be removed from the PRAP.
- **RESPONSE 7:** As explained in the PRAP as well as at the public meeting, a full remedial investigation could not be completed at the site due to the existing structures, which prevented the Department from proposing a complete remedial option at this time. There are two holders on the property, one of which sits fully underneath one building. The Department's experience on these types of holder station sites is that any contamination, if present, would be contained within or adjacent to these holders.
- **COMMENT 8:** Section 6.3: Summary of Environmental Assessment. The ninth paragraph in this section states that the standard for arsenic is 38 ppb however the table in Figure 6 indicates that the criteria level for arsenic is 25 ppb.
- **RESPONSE 8:** The Department acknowledges this error, which has been corrected in the ROD.
- **COMMENT 9:** Section 6.3: Summary of Environmental Assessment. The ninth paragraph in this section provides that "the chlorinated solvents were not used during the holder station operations and are not considered related to the site." This statement appears to be speculative and without support. We respectfully request that it be removed from the PRAP.
- **RESPONSE 9:** This site was used only as a gas storage facility, not for the production of the gas. The wastes found at holder station sites are, typically, primarily coal tar, or contaminants found in the tar such as VOCs and SVOCs. Chlorinated solvents were never used in the production or storage of manufactured gas.
- **COMMENT 10:** Section 7: Summary of the Proposed Remedy. We respectfully request that this section be revised to make clear that the PRPs (not the property owner) are responsible for the implementation of the proposed remedy and the costs associated therewith.

RESPONSE 10: The Consent Owner for this site, which directs the respondents to investigate and remediate, if necessary the site, is between the Department and The Brooklyn Union Gas Company and its successors. In the PRAP, Section 5, Enforcement Status, clearly identifies the PRPs as legally liable for MGP-related contamination at the site.

COMMENT 11: Section 7: Summary of the Proposed Remedy. We respectfully request that this section be revised to clarify that the Cover System will not be required during the development (if any) of the property.

RESPONSE 11: The cover system element of the remedy is required only if there are areas of exposed soils that do not meet the criteria for the proposed use of the site (restricted residential). As stated in the PRAP, the cover may consist of soil, but also could be part of existing or planned redevelopment components, such as pavement, concrete, building foundations or slabs.

COMMENT 12: Summary of the Proposed Remedy. Element #2 provides that the remedial party or site owner must complete and submit an annual certification. We respectfully request that this be revised to clarify that the PRPs are responsible for such certification.

RESPONSE 12: The PRPs are required to submit that certification, but the site owner should cooperate in gathering the requested information. There are situations where the site owner becomes the remedy party, and is then responsible for this submittal.

COMMENT 13: Exhibit B: The second bullet point erroneously restricts the use of the on-site property to commercial or industrial uses. We respectfully request that it be revised to indicate that the property can be utilized for restricted residential use.

RESPONSE 13: Acknowledged. See Response #6.

COMMENT 14: Exhibit B: The PRAP assumes that Alternative 3 is not feasible. We disagree and request that this alternative be further explored. To that end, my client invites the Department to visit the property to better determine whether this alternative is feasible.

RESPONSE 14: Alternative 3 was deemed not feasible based on the limited data that was collected during the site characterization, as well as an understanding that not all of the site impacts are related to the former MGP holder station operations, which would preclude the PRP from conducting such a cleanup. See Response #7. At such time in the future the site becomes accessible in all areas to collect enough data to propose a full remedial option, this Alternative could be re-evaluated. The Department would be more than willing to visit the site to discuss the needs of the future investigation.

Donald P. Campbell, Project Manager, National Grid, submitted a letter (dated November 9, 2017) which included the following comments:

COMMENT 15: Section 2: Citizen Participation. As previously discussed, the library repository information provided in the PRAP is in error, and the library should not be identified as a repository.

RESPONSE 15: This information will be removed from the ROD.

COMMENT 16: Section 3: Site Description and History, Site Features paragraph. There appears to be an omission in the sentence "There are three open-air [sic] at the south side of the property with an

address of 171 York Street." National Grid proposes the sentence to be revised to read "There are also three open-air buildings at the south side of the property with an address of 171 York Street."

The last sentence of the paragraph reads, "The rest of the property is covered in dirt and pavement and used for loading and unloading of materials in the lumber yard." Based on a review of the site characterization report, National Grid proposes that the sentence be changed to read, "The rest of the property is covered with pavement and/or, locally, gravel and used for loading and unloading of materials in the lumber yard."

RESPONSE 16: Acknowledged. The text has been revised accordingly.

COMMENT 17: Section 3: Site Description and History, Past Use of the Site paragraph. The text states, "The site was operated as a Manufactured Gas Plant (MGP) holder station by The Brooklyn Union Gas Company from approximately 1867 to 1935." The Brooklyn Union Gas Company was not incorporated until September 1895. From 1867 to November 1895, the site was owned and/or operated by a predecessor-in-interest of The Brooklyn Union Gas Company, namely The Brooklyn Gas Light Company.

RESPONSE 17: Acknowledged. The text has been revised accordingly.

COMMENT 18: Section 3: Site Description and History, Past Use of the Site paragraph. There appears to be an omission or omissions in the last sentence, which reads, "Subsequent, including current [sic] was as a lumber yard, and warehousing." National Grid proposes the sentence be revised to read, "Subsequent use has been, and continues to be, as a lumber yard and warehouse."

RESPONSE 18: Acknowledged. The text has been revised accordingly.

COMMENT 19: Section 4: Land Use and Physical Setting. Based on conversations with the property owner, National Grid understands that the property owner may intend the future use of the property to include restricted residential. Based on this understanding, shouldn't the alternatives being evaluated include one(s) which would allow for restricted residential use of the site?

RESPONSE 19: See Response #6.

COMMENT 20: Section 5: Enforcement Status. National Grid's November 9, 2017 letter included a recitation of national Grid's position regarding Site history and Potentially Responsible Parties (PRPs).

RESPONSE 20: National Grid's letter is part of the Administrative Record held by the document repositories for the site.

COMMENT 21: Subsection 6.2: Interim Remedial Measure. This sentence includes the sentence "There were no IRMs performed at this site to date." National Grid understands that, after issuance of the ROD, it will no longer be possible for the term "Interim" to be applied to a remediation at the site. If this understanding is correct, the words "to date" should be removed from the identified sentence. If this understanding is not correct, the word "were" should be replaced with "have been" in the identified sentence.

RESPONSE 21: The text will be revised to for clarification.

COMMENT 22: Subsection 6.3: Summary of Environmental Assessment, Groundwater paragraph. National Grid agrees with the last sentence in the penultimate paragraph, which reads,

"It should be noted that chlorinated solvents were not used during the holder station operations, and are not considered related to the site." However, it should be also be noted that while some compounds and analytes detected during the Site Characterization are potentially related to the manufacture of, or storage of manufactured, gas, they are not definitely or may not be solely related to the manufacture of, or storage of manufactured, gas.

RESPONSE 22: The comment is acknowledged.

COMMENT 23: Subsection 6.4: Summary of Human Exposure Pathways. The first sentence of the subsection states, "This human exposure assessment identifies ways in which people may be exposed to site-related contaminants." The fifth sentence of the second paragraph states, "The people to inhale site contaminants in indoor air due to soil vapor intrusion within the on-site buildings." Not all of the compounds and analytes detected during the Site Characterization, nor even all of the contaminants of concern listed in subsection 6.1.2:SC Results, are site-related.

RESPONSE 23: Based on the fact that a complete investigation of onsite groundwater could not be conducted, and the detections of VOCs in groundwater from another location onsite, the Department believes that the text is appropriate as written.

COMMENT 24: Section 7: Summary of the Proposed Remedy, Paragraph 4. On April 26, 2017 National Grid and the Department met to discuss site management plans (SMP)/interim site management plans(ISMP). One of the topics discussed was Section 6.2 of the Department's SMP template, which discusses green remediation. National Grid recollects that, with respect to green remediation, it was agreed that a Green Remediation Evaluation may not be applicable to every SMP and ISMP and that the decision on its applicability would be left to National Grid. National Grid will not include green remediation principles and techniques in the ISMP. As it is too early to know if site management will be required post redevelopment, National Grid holds in abeyance its decision to include green remediation principles and techniques in post-remedial site management.

RESPONSE 24: While the Department agrees that the green remediation discussion is not needed in the ISMP, the decision to include this section in the final SMP will be determined when that document is submitted for review.

COMMENT 24: Exhibit A: Nature and Extent of Contamination. The last sentence of the second paragraph in the Waste/Source Areas section reads, "Coal tar related contaminants were identified at the site within the former MGP structures, which are two gas holder tanks." Similarly, the penultimate sentence of the last paragraph in both the Groundwater section and the Soil section reads, "Based on the findings of the SC, the presence of MGP-related wastes has resulted in contamination of ..."

National Grid agrees that, during the Site Characterization, compounds and analytes potentially related to the manufacture of, or storage of manufactured, gas, were detected. However, these compounds and analytes are not definitely or may not be solely related to the manufacture of, or storage of manufactured, gas.

RESPONSE 24: The comment is acknowledged.

APPENDIX B

Administrative Record

Administrative Record

K-Front Street Holder Station State Superfund Project Brooklyn, Kings County, New York Site No. 224063

- 1. Proposed Remedial Action Plan for the K-Front Street Holder Station site, dated October 2017, prepared by the Department.
- 2. Order on Consent, Index No. A2-0552-0606, between the Department and The Brooklyn Union Gas Company d/b/a KeySpan Energy Delivery New York & KeySpan Gas East Corporation d/b/a KeySpan Energy Delivery Long Island, executed in August 2007.
- 3. "Site Characterization Report for the Former Front Street Holder Station, 206 & 218 Front Street, Brooklyn, New York, 11202, NYSDEC Site #224063", July 2013, Revised April 2015, prepared by URS Corporation.
- 4. Letter dated November 6, 2017 from Joshua M. Levy, Tannenbaum Helpern Syracuse & Hirschtritt LLP.
- 5. Letter dated November 9, 2017 from Donald Campbell, National Grid.