RECORD OF DECISION

Meeker Avenue Plume Superfund Site

Brooklyn, Kings County, New York

United States Environmental Protection Agency
Region 2
New York, New York

September 2024

744534

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Meeker Avenue Plume Superfund Site
Kings County, New York.

EPA Superfund Site Identification Number: NYN000203407
Operable Unit: 02

STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) documents the U.S. Environmental Protection Agency's (EPA's) selection of an interim remedy for Operable Unit 2 (OU2) of the Meeker Avenue Plume Superfund Site (Site), in Kings County, New York, which was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §§ 9601 - 9675, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. This decision document explains the factual and legal basis for selecting the OU2 remedy. The attached index (see Appendix III) identifies the items that comprise the Administrative Record for this action, upon which the selected remedy is based.

The New York State Department of Environmental Conservation (NYSDEC) was consulted on the selected remedy in accordance with CERCLA Section 121(f), 42 U.S.C. § 9621(f), and concurs with the selected remedy (see Appendix IV).

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances at or from the Site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The remedial action described in this document addresses a portion of the Site involving subsurface vapor intrusion at residential and non-residential structures at the Site. This operable unit is the second of two operable units for the Site. A broad, comprehensive remedial investigation and feasibility study (RI/FS) for the Site is currently ongoing, which is referred to as Operable Unit 1 (OU1). The RI/FS includes the investigation of all media at the Site, including soil, soil gas, groundwater, surface water, sediment, and air.

This selected remedy is an interim action to address vapor intrusion at residential and non-residential structures at the Site. It is an interim action rather than a final action because it addresses risks associated with subsurface vapor intrusion from contaminated groundwater but does not address contaminated groundwater itself. This selected remedy is intended to encompass all

residential and non-residential structures within the OU1 study area where EPA has determined or may determine in the future that remedial action is required to address Site-related vapor intrusion (see Figure 1).

The major components of the selected remedy include the following:

- Vapor intrusion mitigation at residential and non-residential structures where multiple lines of evidence indicate that subsurface vapor intrusion is occurring, or has potential to occur, at concentrations that represent a threat, or potential threat, to human health. The vapor mitigation strategy to be used has the following key components, some or all of which may be used at any particular property:

    - Installation of a sub-slab depressurization system.

    - Preventative engineering measures such as the sealing of cracks and gaps in the lowest level of a structure and installing a concrete slab or comparable membrane system in instances where only a dirt floor is present.

- The operation and maintenance of the vapor mitigation measures for one year, after which responsibility for operation and maintenance will be turned over to NYSDEC.

The estimated present-worth cost of the selected remedy is $1,145,200.

The environmental benefits of the selected remedy may be improved by consideration, during remedy design or implementation, of technologies and practices that are sustainable in accordance with EPA Region 2's Clean and Green Energy Policy.

DECLARATION OF STATUTORY DETERMINATIONS

The selected remedy meets the requirements for remedial actions set forth in CERCLA Section 121, 42 U.S.C. § 9621, because it meets the following requirements: 1) it is protective of human health and the environment; 2) it complies with federal and state requirements that are applicable or relevant and appropriate to the limited scope of the interim action; 3) it is cost-effective; and 4) it utilizes alternative treatment or resource recovery technologies to the maximum extent practicable. The selected remedy is an interim action only and is not intended to be a permanent solution.

The selected remedy does not satisfy the statutory preference for treatment as a principal element of the remedy. Vapor intrusion mitigation does not treat the subsurface vapors, rather it serves to prevent contaminated soil vapors from entering and/or accumulating in structures at concentrations that represent a threat, or a potential threat, to human health. It is neither practicable nor cost-effective to treat the small mass of contaminants in the vapors. The ongoing RI/FS for OU1 will evaluate options for addressing contaminated groundwater, which is the principal source of the vapors.

A review of the remedial action pursuant to CERCLA Section 121(c), 42 U.S.C. §9621(c), will be conducted within five years after the commencement of the remedial action to ensure that the remedy continues to provide adequate protection to human health and the environment because this remedy will result in hazardous substances remaining on-Site above health-based levels that allow for unlimited use and unrestricted exposure.

ROD DATA CERTIFICATION CHECKLIST

The ROD contains the remedy selection information noted below. More details may be found in the Administrative Record file for this Site.

- Contaminants of concern and their respective concentrations may be found in the "Summary of Site Characterization" section;
- Current and reasonably anticipated future land use assumptions and current and potential future beneficial uses of groundwater used in the expedited human health evaluation and ROD are discussed in the "Current and Potential Future Land and Resource Uses" section;
- Baseline risk represented by the contaminants of concern may be found in the "Summary of Site Risks" section;
- Cleanup levels established for contaminants of concern and the basis for these levels may be found in the "Remedial Action Objectives" section;
- Estimated capital, annual operation and maintenance (O&M), and total present-worth costs are discussed in the "Description of Remedial Alternatives" section;
- A discussion of principal threat waste may be found in the "Principal Threat Waste" section;
- Key factors used in selecting the remedy (*i.e.*, how the selected remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision) may be found in the "Comparative Analysis of Alternatives" and "Statutory Determinations" sections.

AUTHORIZING SIGNATURE

Evangelista, Pat

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September 27, 2024

Pat Evangelista, Director
Superfund and Emergency Management Division

Date

RECORD OF DECISION
DECISION SUMMARY

Meeker Avenue Plume Superfund Site
Kings County, New York

United States Environmental Protection Agency
Region 2
New York, New York
September 2024

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SITE NAME, LOCATION AND DESCRIPTION

The Site is located in Brooklyn, Kings County, New York and as currently identified spans approximately 191 acres across several city blocks in the Greenpoint and East Williamsburg area of Brooklyn. The Brooklyn-Queens Expressway (BQE) roughly bisects the Site in a west-southwest to east-northeast direction. Newtown Creek also forms a portion of the Site's boundary roughly in the north-northwest direction. The Site includes a mixture of residential, commercial, and industrial uses. These land use designations are not anticipated to change in the future. The total population within the Greenpoint and Williamsburg neighborhoods of Brooklyn where the Site is located is approximately 160,000 people. Figure 1 shows the Site and the current Study Area boundary. EPA has divided the Site into separate phases, or operable units (OUs), for remediation purposes:

- Operable Unit 1: Includes the Remedial Investigation/Feasibility Study (RI/FS) of the entire Study Area. A comprehensive RI/FS for OU1 was initiated in 2023 and is ongoing. The RI/FS includes the investigation of all media at the Site including soil, soil gas, groundwater, surface water, sediment and air.

- Operable Unit 2: Addresses unacceptable risks in indoor air at residential and non-residential structures resulting from Site-related contamination.

The Study Area boundary is preliminary and is defined as the area where the OU1 RI/FS activities are currently focused; the boundary will be refined as the OU1 RI/FS continues and more data are obtained. The ongoing performance of vapor intrusion sampling to identify additional properties where the potential for vapor intrusion of Site-related contamination poses unacceptable risks will continue as part of OU1. EPA's goal is to conduct vapor intrusion sampling at as many properties as possible at the Site.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Site is located in a region of historic petroleum refining and storage operations that have occupied a significant portion of the Greenpoint area since approximately 1866. Currently, bulk oil storage terminals exist north of the Site and include the former British Petroleum Terminal (now Kinder Morgan) and the ExxonMobil Brooklyn Terminal. The former Paragon Oil facility was located along the northeastern portion of the Site along Newtown Creek, north of Bridgewater Street, between Meeker Avenue and Apollo Street. The contamination associated with the Site was discovered by the New York State Department of Environmental Conservation (NYSDEC) during investigation and remediation of an adjacent and overlapping petroleum groundwater contamination area, which had resulted from historical petroleum refining and storage operations along the banks of Newtown Creek. During several rounds of investigation, chlorinated volatile organic compounds (CVOCs), including but not limited to trichlorethylene (TCE) and tetrachlorethylene (PCE), were found in subsurface soil gas, soil, and groundwater outside the petroleum spill area. Upon discovery of the CVOC contamination, NYSDEC initiated investigations in the area to determine the extent and sources of CVOC contamination, as well as the potential impacts of this contamination on the community.

Since 2007, NYSDEC, in conjunction with the New York State Department of Health (NYSDOH), has conducted multiple investigations related to the Site. These investigations have consisted of soil, groundwater, soil gas, and soil vapor intrusion sampling. NYSDEC completed nine separate Site characterization investigations between 2007 and 2016 and ten soil vapor intrusion investigations between 2007 and 2023. In total, NYSDEC sampled more than 166 properties and installed sub-slab depressurization systems at approximately 26 structures to address vapor intrusion throughout the course of their investigations.

On March 17, 2022, the Site was added to EPA's National Priorities List pursuant to CERCLA. As mentioned above, EPA is currently conducting the OU1 RI/FS for the Site.

Enforcement-related activities have been initiated at the Site, and EPA is in the process of conducting a search for potentially responsible parties at the Site.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

EPA released the Focused Feasibility Study (FFS) report and the Proposed Plan for the OU2 remedy to the public for comment on April 5, 2024. EPA made these documents available electronically to the public in the administrative record file for this action at the EPA Superfund Records Room in Region 2, New York, the information repository at the Greenpoint Library, and online at: https://www.epa.gov/superfund/meeker-avenue-plume. The notice of availability for these documents was published in the Brooklyn Daily Eagle, on the Nowy Dziennik website, and via the Greenpointers newsletter on April 5, 2024, and in Abecadlo on April 12, 2024. The initial 30-day public comment period on these documents was scheduled from April 5, 2024 to May 10, 2024 and was extended to June 25, 2024 at the request of various community groups. The notice of extension was published via the Greenpointers newsletter on April 12, 2024 in the Brooklyn Daily Eagle and in Abecadlo on April 19, 2024, and in Nowy Dziennik on April 20, 2024.

On April 16, 2024, EPA conducted a public meeting at St. Stanislaus Kostka Church, Brooklyn, New York, to inform local officials and members of the public about the Superfund process, present the findings of the RI/FS thus far and EPA's Proposed Plan to the community, review current and planned remedial activities at the Site, and respond to questions from area residents and other attendees. EPA responses to the comments received at the public meeting and in writing during the public comment period are included in the Responsiveness Summary (see Appendix V).

SCOPE AND ROLE OF RESPONSE ACTION (OU2)

Section 300.5 of the NCP, 40 CFR Section 300.5, defines an OU as a discrete action that comprises an incremental step toward comprehensively addressing a site's contamination. A discrete portion of a remedial response eliminates or mitigates a release, a threat of release, or pathway of exposure. The cleanup of a site can be divided into a number of OUs, depending on the complexity of the problems associated with the site. As noted above, EPA has designated two OUs for the Meeker Avenue Plume Superfund Site.

As described above, OU1 currently is broader and more comprehensive than the more focused OU2. A comprehensive RI/FS for OU1 was initiated in 2023 and is ongoing. That RI/FS includes the investigation of all media at the Site, including soil, soil gas, groundwater, surface water, sediment, and air. This ROD identifies an interim remedy for OU2, which is to address unacceptable risks in indoor air resulting from Site-related contamination. EPA uses interim actions to address areas or contaminated media that ultimately may be included in the final ROD for a site. Interim actions include measures to treat contamination in an operable unit and/or prevent migration of contaminants or further environmental degradation until such time as a final remedial decision is issued. The RI/FS for OU1 is still in its early stages. As such, the OU2 remedy is considered interim while EPA's overall conceptual site model of the Site is being developed. The selected remedy for OU2 will be reviewed on an ongoing basis to determine if any changes are needed. The ongoing performance of vapor intrusion sampling to identify additional properties where the potential for subsurface vapor intrusion of Site-related contamination poses unacceptable risks will continue as part of OU1 of the Site. EPA's goal is to conduct vapor intrusion sampling at as many properties as possible at the Site. A final action for OU1 will be developed at the conclusion of the RI/FS.

SUMMARY OF SITE CHARACTERISTICS

Overview

As mentioned previously, since 2007, NYSDEC, in conjunction with NYSDOH, has conducted multiple investigations related to the Site consisting of soil, groundwater, soil gas, indoor air, and ambient air sampling. While CVOC contamination has been detected in the subsurface and indoor air of occupied residential and non-residential structures within the preliminary OU1 Study Area, and several source areas have already been identified, the extent of groundwater, soil and subsurface vapor contamination associated with the Site and the subsequent impacts to indoor air have not been fully delineated. As such, EPA is conducting a comprehensive OU1 RI/FS to fully investigate the nature and extent of contamination present at the Site, the risks to human health and the environment associated with the contamination, and alternatives to address the risk. Part of this effort will include the identification and investigation of the known and potential additional sources of contamination. The current preliminary Study Area shown on Figure 1 was based on the information gathered by NYSDEC to date; EPA will update this map as needed as the RI/FS continues.

Geology and Hydrogeology

Based on soil borings performed at and near the Site by NYSDEC and other investigators, the Site is underlain by the Upper Glacial aquifer, the Raritan Formation, and crystalline bedrock. The primary hydrogeologic unit is the Upper Glacial aquifer, which consists of a terminal moraine, a ground moraine, and glacial outwash deposits, and is characterized by the United States Geological Survey as an unsorted and unstratified mixture of clay, sand, gravel, and boulders. Textural units identified by NYSDEC in the Upper Glacial aquifer at the Site include fill material, silty sand, sandy silt, sand, and localized clayey silt/silt. Based on slug test results from several Meeker Avenue Plume Site monitoring wells, the hydraulic conductivity of the Upper Glacial aquifer ranges from 8.32×10^{-5} centimeters per second (cm/s) to 2.91×10^{-2} cm/s.

At and near the Site, the Upper Glacial aquifer is underlain by the Raritan Formation unit at an approximate depth of 100 to 140 feet below ground surface. The Raritan Formation, which consists of clay, silty clay, and clayey to silty fine sand, exhibits hydraulic conductivity less than 1×10^{-6} cm/s and is recognized as a confining unit. The water table surface occurs in the Upper Glacial aquifer from approximately 10 to 60 feet below ground surface.

In general, natural groundwater flow in the aquifer is to the east and northeast. However, the large, off-site groundwater pump and treat system that has been operated since the mid-1990s as part of an effort to cleanup an overlapping petroleum groundwater contamination area has produced localized cones of depression. The overall Site hydrogeology is being further explored through the OU1 RI/FS process.

Vapor Intrusion Description

The soil, soil gas, and groundwater at the Site are contaminated with CVOCs. CVOCs are a subset of volatile organic compounds (VOCs), which are substances that typically evaporate at room temperature. They can affect the indoor air of properties located in close proximity to contaminated areas by entering the indoor air of structures through small cracks, pipes or other points of entry. Subsurface soil vapor intrusion inside residential and commercial buildings is a major concern at the Site. VOCs are also commonly found in household products such as cleaning supplies, building products like paints and air fresheners. Therefore, sampling indoor air for the presence of Site-related contamination is a complex process that involves sampling both the indoor air and the air beneath the structure (referred to as sub-slab) over time to understand how vapors might be migrating indoors. Common household sources of VOCs also need to be removed during testing so that the results can reliably reflect what may be entering the structure from the contaminated material beneath it, as opposed to from materials in the building.

The soil vapor intrusion sampling being conducted by EPA as part of the OU1 RI/FS is typically a three-day process, which can generally be described as follows, though slight modifications to this approach can be made on an as-needed basis:

- Day 1: EPA inspects the property for any potential sources of VOCs and temporarily stores any that are found. EPA then installs a sub-slab soil gas port, which involves drilling an approximately quarter-sized hole through the lowest level floor of a structure. Day 1 activities typically takes EPA between 1 and 1.5 hours to complete.

- Day 2: EPA returns to make sure the port is functioning properly and, assuming it is, places sampling devices throughout the lowest one or two levels of the property (typically, basement and first floor). These sampling devices need to be left in place to collect air passively for 24 hours for residential properties and at least 8 hours for non-residential properties. Day 2 activities typically take EPA about 1 hour to complete.

- Day 3: EPA returns to collect the air samplers, which typically takes less than 1 hour to complete.

Ideally, this sampling is conducted during the winter heating season, which runs from mid-November through March in the New York City area, because this is when the greatest potential for subsurface vapor intrusion is expected to occur.

The results of the sampling are evaluated through multiple lines of evidence to make recommendations on next steps. The potential recommendations may include (1) that the results clearly indicate that no action is required; (2) that the results are not clear and additional sampling is required; or (3) the results indicate that contamination from the soil, groundwater, and/or soil gas is entering or has the potential to enter the structure above Remedial Action Levels (further defined below) and, therefore, soil vapor mitigation in the structure is required.

Results of the Remedial Investigation (Vapor Intrusion)

There are currently between 900 and 1,000 properties within the Study Area for the Site that are potentially impacted by subsurface vapor intrusion of Site-related contamination; the potential for subsurface vapor intrusion depends on multiple factors, including the condition of the building itself and the level of contamination beneath and near a structure. As such, EPA's goal is to conduct vapor intrusion sampling at as many properties as possible within the Study Area. As part of this effort, EPA has been seeking consent for access to conduct the sampling while working closely with the community on outreach efforts to help increase awareness about the Site and encourage the public's overall willingness to provide access.

EPA began soil vapor intrusion sampling activities at the Site as part of OU1 in November 2022. As of December 2023, EPA has conducted vapor intrusion sampling and fully evaluated the results at 18 residential structures, 11 public housing buildings, and one public school. Out of these, EPA has determined that vapor mitigation is not needed at this time at any of the properties it has sampled, and that further monitoring should be conducted at three of the residential properties. In addition, in February and March 2024, EPA sampled 18 properties and is currently evaluating the results, and will be conducting additional sampling in the future. NYSDEC did, however, identify 26 properties that they determined required the installation of sub-slab depressurization systems to mitigate risks from vapor intrusion when they were conducting work prior to the Site being designated as a Superfund site, and two that required the sealing of cracks/gaps. As such, EPA fully anticipates identifying additional properties that would require vapor intrusion mitigation during the ongoing OU1 RI/FS process.

Results of the Remedial Investigation (Groundwater)

EPA has recently completed an initial round of groundwater sampling at the Site. This sampling effort included surveying more than 370 existing groundwater monitoring wells and sampling 344 of these for CERCLA-related hazardous substances including VOCs, semi-volatile organic compounds, 1,4-dioxane, pesticides, polychlorinated biphenyls, metals, and per and polyfluoroalkyl substances. Once the analytical results from the groundwater sampling are fully available, the data will be used to refine the extent of the preliminary Study Area, to determine the location of additional wells that need to be installed to fill in data gaps, and to help better determine areas where future vapor intrusion sampling should be conducted.

CURRENT AND POTENTIAL FUTURE LAND AND RESOURCE USES

Land Uses

As mentioned previously, the Site currently spans approximately 191 acres across several city blocks in the Greenpoint and East Williamsburg area of Brooklyn. The BQE, a major highway that connects Brooklyn and Queens, roughly bisects the Site and Newtown Creek forms a portion of the Site's boundary. Over 1,000 individual properties are located within the preliminary Study Area and these properties include a mixture of residential, commercial, and industrial uses. While the land use on any particular lot may change over time, the general mix of land use designations is not anticipated to change significantly in the future. The total population within the Greenpoint and Williamsburg neighborhoods of Brooklyn where the Site is located is approximately 160,000 people.

Groundwater and Surface Water Use

The groundwater beneath the Site is not currently used as a drinking water source, and there are no surface water bodies present within the current Study Area. The Site does border Newtown Creek, which has also been designated a separate National Priorities List Superfund site. Any potential impacts related to Newtown Creek from the Meeker Avenue Plume Site will be determined through the OU1 RI/FS process.

Environmental Justice

EPA's EJScreen tool, a tool to evaluate environmental justice impacts, shows that approximately 34% of the community in the vicinity of the Site identifies as non-English speakers. The top three most frequently used non-English languages are Spanish (14%) Polish (9%), and Chinese (2%). Approximately 80% of housing units are renter occupied, and approximately 42% of the population has less than a high school education. Based on the findings of the EJScreen Report for the Site, EPA determined that the community would benefit from multiple modes of outreach and educational materials in multiple languages. For example, EPA has conducted outreach through social media, public meetings, door-to-door engagement, local tabling events, and by facilitating the creation of a Community Advisory Group (CAG) and attending those meetings. EPA has also provided site-related fact sheets in multiple languages including English, Polish, Spanish, and Chinese. The findings of the EJScreen Report also indicated the community is in the 98th percentile for Superfund proximity, which the community has expressed concerns about. EPA is actively addressing this concern by discussing the surrounding Superfund sites at CAG meetings and providing information and educational maps about these sites.

Climate Change

Potential Site impacts from climate change have been assessed, and the performance of the remedy selected herein is currently not at risk because of the expected effects of climate change

in the region and near the Site. Potential Site impacts from climate change will be further evaluated as part of the ongoing OU1 RI/FS.

SUMMARY OF SITE RISKS

EPA typically conducts baseline human health and ecological risk assessments to assess the potential adverse human health and ecological effects of releases of hazardous substances from a site in the absence of any actions or controls to mitigate such releases, under current and future land uses. In this case, there are no completed ecological exposure pathways as the focus of this action is on subsurface vapor intrusion into structures. As such, an ecological risk assessment was not performed as part of the OU2 evaluation process.

EPA conducted an expedited human health risk evaluation of the soil vapor intrusion exposure pathway as part of the FFS for OU2 to estimate the risks and hazards associated with exposure to Site-related contaminants of potential concern (COPCs) in indoor air. The evaluation utilized data obtained by both NYSDEC and EPA available at the time. The expedited human health risk evaluation for OU2 of the Site, formally entitled "Expedited Vapor Intrusion Evaluation and Estimation of Potential Human Health Risks" is available in Appendix D of the FFS document, which can be found in the administrative record for the Site.

The approach for the expedited risk evaluation consisted of comparing sub-slab soil vapor and indoor air concentrations against EPA's current, chemical-specific, risk-based vapor intrusion screening levels (VISLs). All vapor intrusion data collected by NYSDEC and EPA at the time the expedited human health risk evaluation was conducted was considered in the evaluation. Three properties from the NYSDEC data, including two residential properties (P001 and P002) and one commercial facility (P003), were chosen for this evaluation. These properties were chosen because, based on a review of the data, they were representative of high-end exposure conditions to nearby residents, commercial/industrial or mixed-use buildings potentially impacted by groundwater and soil vapor contamination at the Site. In addition, data from three residences (P004, P005 and P006) collected during the November 2022 sampling round was also included in the expedited risk evaluation for overall completeness. The subsequent section discusses EPA's human health risk assessment process used in the expedited human health risk evaluation for OU2 in more detail.

Human Health Risk Assessment

A four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario:

- Hazard Identification – uses the analytical data collected to identify the contaminants of potential concern at the Site for each medium, with consideration of a number of factors explained below;
- Exposure Assessment - estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., ingesting contaminated well-water) by which humans are potentially exposed;

- Toxicity Assessment - determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and
- Risk Characterization - summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. The risk characterization also identifies contamination with concentrations which exceed acceptable levels, defined by the National Contingency Plan (NCP) as an excess lifetime cancer risk greater than 1×10^{-6} to 1×10^{-4} or a noncancer Hazard Index greater than 1; contaminants at these concentrations are considered chemicals of concern (COCs) and are typically those that will require remediation at the Site. Also included in this section is a discussion of the uncertainties associated with these risks.

Hazard Identification

In this step, the COPCs in sub-slab and indoor air were identified based on such factors as toxicity, frequency of occurrence, fate and transport of the contaminants in the environment, concentrations, mobility, persistence, and bioaccumulation. Based on the data collected to date, TCE, PCE and 1,1,1-trichlorethane (TCA) were detected with the greatest frequency. Of these three contaminants, only TCE and PCE exceeded the VISLs for indoor air and sub-slab. Based on this information, the risk assessment focused on sub-slab and indoor air results from vapor intrusion sampling and contaminants which may pose significant risk to human health. As shown in Table 1, the COCs identified for OU2 include PCE and TCE.

Exposure Assessment

Consistent with Superfund policy and guidance, the expedited human health risk evaluation assumed no remediation has been performed and no institutional controls are in place to mitigate or remove hazardous substance releases. Cancer risks and noncancer hazard indices were calculated based on an estimate of the reasonable maximum exposure (RME) expected to occur under current and future conditions at the Site. The RME is defined as the highest exposure that is reasonably expected to occur at a site.

As previously mentioned, over 1,000 individual properties are located within the preliminary Study Area; these properties include a mixture of residential, commercial, and industrial uses. While the land use on any particular lot may change over time, the general mix of land use designations is not anticipated to change significantly in the future. The expedited human health risk evaluation assessed potential risks to populations associated with both current and potential future land uses. Exposure pathways were identified for each potentially exposed population at the Site. As such, current/future resident and commercial/industrial workers were evaluated for inhalation exposures to contaminants in indoor and sub-slab air. A summary of the exposure pathways included in the expedited human health risk evaluation can be found in Table 2.

Typically, exposures are evaluated using a statistical estimate of the exposure point concentration, which is usually an upper bound estimate of the average concentration for each contaminant, but in some cases may be the maximum detected concentration. In the case of the human health risk evaluation for OU2 of the Site, the maximum detected concentration in indoor

air and sub-slab at each property (P001- P006) were used to represent reasonable maximum exposure scenarios. A summary of the exposure point concentrations for COCs in each medium can be found in Table 1, while a more comprehensive list of the exposure point concentrations for all COPCs identified for OU2 can be found in the Appendix D of the FFS document.

Toxicity Assessment

In this step, the types of adverse health effects associated with contaminant exposures and the relationship between magnitude of exposure and severity of adverse health effects were determined. Potential health effects are contaminant-specific and may include the risk of developing cancer over a lifetime or other noncancer health effects, such as changes in the normal functions of organs within the body (e.g., changes in the effectiveness of the immune system). Some contaminants are capable of causing both cancer and noncancer health effects.

Under current EPA guidelines, the likelihood of carcinogenic risks and noncancer hazards due to exposure to site chemicals are considered separately. Consistent with current EPA policy, it was assumed that the toxic effects of the Site-related chemicals would be additive. Thus, cancer and noncancer risks associated with exposures to individual COPCs were summed to indicate the potential risks and hazards associated with mixtures of potential carcinogens and noncarcinogens, respectively.

Toxicity data for the expedited human health risk evaluation were provided by the Integrated Risk Information System database, the Provisional Peer Reviewed Toxicity Value database, or another source that was identified as an appropriate reference for toxicity values (https://www.epa.gov/sites/default/files/2015-11/documents/tier3-toxicityvalue-whitepaper.pdf). This information is presented in Table 3 (noncancer toxicity data summary) and Table 4 (cancer toxicity data summary).

Risk Characterization

This step summarized and combined outputs of the exposure and toxicity assessments to provide a quantitative assessment of Site risks. Exposures were evaluated based on the potential risk of developing cancer and the potential for noncancer health hazards.

Noncancer risks were assessed using a hazard index (HI) approach, based on a comparison of expected contaminant intakes and benchmark comparison levels of intake (reference doses, reference concentrations). Reference doses (RfDs) and reference concentrations (RfCs) are estimates of daily exposure levels for humans (including sensitive individuals) which are thought to be safe over a lifetime of exposure. The estimated intake of chemicals identified in environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) is compared to the RfD or the RfC to derive the hazard quotient (HQ) for the contaminant in the particular medium. The HI is obtained by adding the hazard quotients for all compounds within a particular medium that impacts a particular receptor population.

The HQ for inhalation exposures is calculated as below.

HQ = EC/(RfC*1000µg/mg)

Where: HQ = hazard quotient
EC = exposure concentration (µg/m^3)
RfC = reference concentration (mg/m^3)
1000µg/mg= conversion factor

The exposure concentration and the RfC will represent the same exposure period (i.e., chronic, subchronic, or acute).

The HI is calculated by summing the HQs for all chemicals for likely exposure scenarios for a specific population. The noncancer HI is a "threshold level," set at an HI of less than 1, below which noncancer health effects are not expected to occur. An HI greater than 1 indicates that the potential exists for noncarcinogenic health effects to occur as a result of site-related exposures, with the potential for health effects increasing as the HI increases. When the HI calculated for all chemicals for a specific population exceeds 1, separate HI values are then calculated for those chemicals which are known to act on the same target organ. These discrete HI values are then compared to the acceptable limit of 1 to evaluate the potential for noncancer health effects on a specific target organ. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. A summary of the noncarcinogenic risks associated with these chemicals for each exposure pathway is contained in Table 5.

As shown in Table 5, the HI for noncancer effects stemming from exposure to TCE (HI=6) and PCE (HI=4) in indoor air exceeded EPA's threshold of 1 at P001 during the 2008/2009 heating season. This same sampling location, P001, was associated with an HQ of 2 from exposure to TCE in indoor air during the 2009/2010 sampling round. All other indoor air locations evaluated were found to be below or at the threshold value of 1 when considering noncancer effects that act one the same target organ. As for sub-slab results, exceedances of the noncancer hazard for TCE (HI=4) and PCE (HI=3) were shown in location P001 during the 2008/2009 heating season. TCE in sub-slab location P002 was associated with a HI of 2 for the 2009/2010 sampling round. Finally, in the 2020/2021 heating season, the commercial zoned property, P003, showed TCE concentrations in sub-slab that correlated to a HI exceedance of 99.

For carcinogens, risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a carcinogen, using the cancer slope factor (SF) for oral and dermal exposures and the inhalation unit risk (IUR) for inhalation exposures. Excess lifetime cancer risk for oral and dermal exposures is calculated from the following equation, while the equation for inhalation exposures uses the IUR, rather than the SF:

Risk = LADD x SF

Where: Risk = a unitless probability (1 x 10-6) of an individual developing cancer
LADD = lifetime average daily dose averaged over 70 years (mg/kg-day)

SF = cancer slope factor, expressed as [1/(mg/kg-day)]

These risks are probabilities that are usually expressed in scientific notation (such as 1 x 10^{-4}). An excess lifetime cancer risk of 1 x 10^{-4} indicates that one additional incidence of cancer may occur in a population of 10,000 people who are exposed under the conditions identified in the assessment. Again, as stated in the National Contingency Plan, the acceptable risk range for site-related exposure is 10^{-6} to 10^{-4}.

Results of the expedited human health risk evaluation presented in Table 6 indicate that the cancer risk estimates from exposure to PCE and TCE in indoor air were all within the acceptable risk range for the six properties evaluated. The combined cancer risks associated with exposure to TCE and/or PCE in indoor air ranged from $1.2x10^{-6}$ at location P005 to $4.1x10^{-5}$ at location P001. Considering sub-slab results, all cancer risk estimates for the properties evaluated were below or within EPA's cancer risk range with the exception of sub-slab at P003. Considering sub-slab data collected during the 2020/2021 heating season for location P003, the resultant cancer risk estimate exceedance of 2.9 $x10^{-4}$ was found to be driven by exposure to TCE in sub-slab.

In summary, although the cancer risk estimates from exposure to PCE and TCE in indoor air were within EPA's acceptable cancer risk range of 10^{-6} to 10^{-4}, the expedited human risk evaluation found that the noncancer hazard estimates exceeded EPA's threshold of 1 at location P001. Indoor air COCs identified at location P001 included TCE and PCE. Similarly, sub-slab exceedances above an HI of 1 were found stemming from exposure to TCE and/or PCE in P001, P002 and P003. Further, cancer risk estimates associated with exposure to TCE in sub-slab of location P003 exceeded EPA's threshold cancer range of $1x10^{-4}$. [1]

Expedited Human Health Risk Evaluation Uncertainties

The procedures and inputs used to assess risks in this evaluation, as in all such assessments, are subject to a wide variety of uncertainties. In general, the main sources of uncertainty include:

- environmental chemistry sampling and analysis
- environmental parameter measurement
- fate and transport modeling
- exposure parameter estimation
- toxicological data.

Uncertainty in environmental sampling arises in part from the potentially uneven distribution of contaminants in the media sampled. Consequently, there is significant uncertainty as to the actual

[1] All properties that were identified as having unacceptable risk have sub-slab depressurization systems installed in them.

levels present. Environmental chemistry-analysis error can stem from several sources including the errors inherent in the analytical methods and characteristics of the matrix being sampled.

Uncertainties in the exposure assessment are related to estimates of how often an individual would actually come in contact with the contaminants of concern, the period of time over which such exposure would occur, and in the models used to estimate the concentrations of the contaminants of concern at the point of exposure. However, the exposure pathways at residential and commercial/industrial properties assume standard exposure assumptions (USEPA, 2014) and hence are not expected to underestimate calculated cancer risk and noncancer hazard.

Uncertainties in toxicological data occur in extrapolating both from animals to humans and from high to low doses of exposure, as well as from the difficulties in assessing the toxicity of a mixture of contaminants. These uncertainties are addressed by making conservative assumptions concerning risk and exposure parameters throughout the assessment. As a result, the risk assessment provides upper-bound estimates of the risks to populations near the Site and is highly unlikely to underestimate actual risks related to the Site.

A Site-specific uncertainty associated with the expedited risk evaluation is that risks associated with other contaminants besides PCE, TCE and 1,1,1-TCA were not evaluated, and this may result in an underestimate of cancer risks and noncancer HQs. However, the uncertainty is not expected to be large since TCE and PCE are understood to be the primary Site-related contaminants based on historical sampling results and records review. Nevertheless, EPA will be performing additional risk evaluations, and other compounds may be further evaluated as part of future VI risk assessments.

More specific information concerning public health risks, including a quantitative evaluation of the degree of risk associated with various exposure pathways, is presented in the expedited risk evaluation document available in the administrative record (Appendix D of the FFS).

Basis for Action

Based on the results of the expedited human health risk evaluation, actual or threatened releases of hazardous substances from OU2 of the Site, if not addressed by implementing the response action selected in the ROD, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific media-specific goals to protect human health and the environment; they specify the contaminant(s) of concern, the exposure route(s), receptor(s), and acceptable contaminant level(s) for each exposure route. These objectives are based on available information and standards such as ARARs, to-be-considered (TBC) advisories, criteria and guidance, and site-specific risk-based levels and background (i.e., reference area) concentrations.

The following remedial action objectives were established for OU2 to address subsurface soil vapor intrusion at the Site:

- Prevent exposure by current and future occupants to Site-related PCE and TCE-contaminated vapors within structures that would result in a noncancer hazard index greater than 1.
- Prevent the migration of contaminated subsurface vapors into the indoor air of structures from Site-related PCE and TCE in soil and/or groundwater above remedial action levels (RALs) based on current and reasonably anticipated future land use.

Vapor intrusion investigations are ongoing as part of the OU1 RI/FS. If other Site-related CVOCs are detected above levels of concern and/or if additional contaminants of concern are identified during the OU1 RI/FS and mitigative measures are needed to address their impact, or potential impact, on indoor air, then they may also be addressed.

Remediation Goals

Achieving the RAOs relies on the remedial alternatives' ability to meet final remediation goals/cleanup levels derived from preliminary remediation goals (PRGs), which are generally chemical-specific goals for each medium and/or exposure route that are established to protect human health and the environment. They can be based on such factors as ARARs, risk, and from comparison to background levels of contaminants in the environment that occur naturally or are from other industrial sources.

PRGs become final remediation goals (RGs), or in this case, RALs, when EPA selects a remedy after taking into consideration all public comments. To achieve the RAOs for OU2, EPA has identified the following RALs[2] for TCE and PCE:

COC	Residential Remedial Action Levels (µg/m^3)		Commercial / Industrial Remedial Action Levels[3](µg/m^3)	
	Indoor Air	Sub- slab	Indoor Air	Sub- slab
TCE	2.1	70	8.8	290
PCE	42	1,400	180	5,800

The RALs represent current EPA VISLs set at a target HQ = 1, which, for PCE and TCE, falls midway between EPA's cancer risk range of $1x10^{-6}$ to $1x10^{-4}$. These RALs will be considered with other Site-specific lines of evidence such as subsurface geology and hydrogeology, subsurface contamination levels, the structural characteristics of each building, and proximity to other impacted structures in determining whether there is a need for remedial action. The need for remedial action will also be determined in consultation with NYSDEC and the NYSDOH,

[2] Consistent with EPA's Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway (OSWER 9200.2154, 2015), the RALs are developed assuming that there is attenuation as vapors migrate from the sub-slab to indoor air. EPA's guidance assumes that indoor air concentrations would be 33 times lower than those is the sub-slab.

[3] The commercial/industrial RALs assume an eight-hour workday, which is protective of most non-residential settings and can be adjusted as needed to account for property-specific conditions.

including consideration of NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York.*

Whether to apply the residential RAL or Commercial/Industrial RAL will also be determined on a case-by-case basis, in consultation with NYSDEC and NYSDOH. In general, EPA understands that many properties that are zoned for non-residential use may be used, either regularly or from time-to-time, in what would be more consistent with residential exposure assumptions. The residential RALs may be used at any property, residential or non-residential, if there is reason to believe the commercial/industrial RALs are not sufficiently protective, either under current or reasonably anticipated future use scenarios.

Finally, as stated above, if additional contaminants of concern are identified during the ongoing OU1 RI/FS that may adversely affect indoor air, EPA's VISLs and NYSDOH guidance will be reviewed and, if warranted, appropriate mitigative actions will be taken.

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA Section 121(b)(1), 42 U.S.C. §9621(b)(1), requires that a remedial action be protective of human health and the environment, cost effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants and contaminants at a site. CERCLA Section 121(d), 42 U.S.C. §9621(d), further specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants, and contaminants, which at least attains ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA Section 121(d)(4), 42 U.S.C. §9621(d)(4).

Potential technologies applicable to subsurface vapor intrusion mitigation were identified and screened using the effectiveness, implementability, and cost criteria, with emphasis on effectiveness. Those technologies that passed the initial screening were assembled into alternatives.

This ROD evaluates in detail two remedial alternatives for addressing the contamination associated with the Site. The time to implement a remedial alternative reflects only the time required to construct or implement the remedy and does not include the time required to negotiate with the responsible parties, design the remedy, procure contracts for design and construction, or conduct operation and maintenance at the Site. Detailed information regarding the alternatives can be found in the FFS report.

A review of the remedial action pursuant to CERCLA Section 121(c), 42 U.S.C. §9621(c), will be conducted five years after the commencement of the remedial action to ensure that the remedy continues to provide adequate protection to human health and the environment because this remedy will result in hazardous substances remaining on-Site above health-based levels that allow for unlimited use and unrestricted exposure.

Description of Remedial Alternatives

Alternative 1 - No Action

Alternative 1, the "No Action" alternative, is required by the NCP to provide an environmental baseline against which impacts of the other remedial alternatives can be compared. No action would be initiated to remediate contaminated media or otherwise mitigate the migration of contamination that poses unacceptable risks to human health and the environment. This alternative also does not include monitoring or institutional controls.

Total Capital Cost:	$0
Total O&M:	$0
Total Present Net Worth:	$0
Construction Timeframe:	0 years

Alternative 2 – Vapor Intrusion Mitigation

Under this alternative, subsurface vapor intrusion mitigation would be implemented at structures where EPA determines that, based on multiple lines of evidence, vapor intrusion of the COCs is occurring, or has the potential to occur, at concentrations that exceed the RALs. The goal of vapor intrusion mitigation would be to prevent contaminated soil vapors from entering and/or accumulating in structures at concentrations that represent a threat, or a potential threat, to human health. The potential for vapor intrusion to occur at a particular structure is dependent upon several factors, including subsurface geology and hydrogeology, the structural characteristics of a building, and the proximity to other impacted structures or sources. Different impacted structures may therefore require different vapor mitigation strategies based on factors such as age of the building and construction type, the depth to groundwater beneath a structure, etc. For the purposes of the cost estimate, the mitigation actions include installing active, sub-slab depressurization mitigation systems as well as preventative engineering measures such as sealing cracks and gaps in the lowest level of a structure and installing a concrete slab or comparable membrane system in instances where only a dirt floor is present.

The cost estimate reflects the estimated costs for mitigation in the event that an estimated 100 structures within the Study Area are found to require vapor mitigation as a result of sampling and the other lines of evidence described above. This represents approximately 10 percent of the properties within the interim Study Area. The cost estimate also takes into consideration other factors including costs for addressing basements and crawl spaces without any existing concrete floor, as well as larger multi-unit structures that would require more depressurization points than smaller structures. The cost estimate also reflects one year of estimated costs for operation and maintenance (O&M) of sub-slab depressurization systems to ensure the systems are operating properly for the estimated 100 properties. The sampling and mitigation is expected to occur on a rolling basis over a period of five years. If it is determined that a property requires a sub-slab depressurization system, EPA will work with the owner to arrange for the installation of the system. Construction can be completed in as little as one to two days, and it can take up to one week or longer for the installation of larger commercial systems. The construction time for each alternative reflects only the actual time required to construct or implement the action and does

not include the time required to design the remedy, negotiate the performance of the remedy with any potentially responsible parties, or procure the contracts and funding for design and construction.

The specific details and cost of the mitigation measures for any particular structure would be determined during remedial design (Table 7).

Total Capital Cost:	$ 1,124,000
Total O&M:	$21,200
Total Present Net Worth:	$1,145,200
Construction Timeframe:	5 years

SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy, EPA considered the factors set out in CERCLA Section 121, 42 U.S.C. § 9621, conducting a detailed analysis of the viable remedial alternatives pursuant to the NCP, 40 CFR § 300.430(e)(9), EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (OSWER Directive 9355.3-01) and EPA's A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, OSWER 9200.1-23.P. The detailed analysis consisted of an assessment of the individual alternatives against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

The first two criteria are known as "threshold criteria" because they are the minimum requirements that each response measure must meet in order to be eligible for selection as a remedy:

1. *Overall protection of human health and the environment* addresses whether or not a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

2. *Compliance with ARARs* addresses whether or not a remedy would meet all of the applicable (legally enforceable), or relevant and appropriate (requirements that pertain to situations sufficiently similar to those encountered at a Superfund site such that their use is well suited to the site) requirements of federal and state environmental statutes and requirements or provide grounds for invoking a waiver. Other federal or state advisories, criteria, or guidance may be identified by EPA as "to be considered", or "TBCs". While TBCs are not required to be adhered to under the NCP, they may be useful in determining what is protective or how to carry out certain actions or requirements.

The following "primary balancing" criteria are used to make comparisons and to identify the major trade-offs between alternatives:

3. *Long-term effectiveness and permanence* refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude, effectiveness and reliability of the

measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

4. *Reduction of toxicity, mobility, or volume via treatment* refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants or contaminants at the site through treatment.

5. *Short-term effectiveness* addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed to workers, the community and the environment during the construction and implementation periods until cleanup goals are achieved.

6. *Implementability* refers to the technical and administrative feasibility of a remedy, from design through construction and operation, including the availability of materials and services needed, administrative feasibility, and coordination with other governmental entities.

7. *Cost* includes estimated capital and operation and maintenance costs, and the net present-worth costs calculated using a 7% discount rate [per current guidance].

The following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. *State acceptance* indicates whether, based on its review of the RI/FS and the Proposed Plan, the State supports, opposes, and/or has identified any reservations with the preferred alternative.

9. *Community acceptance* refers to the public's general response to the alternatives described in the Proposed Plan and the RI/FS reports. Factors of community acceptance to be discussed include support, reservation, and opposition by the community.

A comparative analysis of the remedial alternatives based upon the evaluation criteria noted above follows.

- <u>Overall Protection of Human Health and the Environment</u>

Alternative 1 (No Action) would not meet the RAOs and would not be protective of human health and the environment since no action would be taken.

Alternative 2 (Vapor Intrusion Mitigation) would control exposure to Site-related contaminants from subsurface vapor intrusion into residential and non-residential structures. Contaminated sub-slab vapor would be prevented from entering and/or accumulating in buildings at concentrations that represent a potential threat to human health. Therefore, when implemented at impacted buildings, Alternative 2 would be protective of human health and the environment. RAOs would be met immediately after implementation of the mitigative measures at any particular structure.

- Compliance with ARARs

In accordance with the NCP (40 CFR § 300.430(f)(l)(ii)(c)(l)), interim actions such as this are not required to comply with ARARs as long as the final remedial action at the Site will attain them. Consequently, no ARARs have been identified for this interim action.

- Long-Term Effectiveness and Permanence

Alternative 1 would involve no active remedial measures and, therefore, would not be effective in eliminating the potential exposure to contaminants. Alternative 2 would be effective in the long term. Previously installed vapor mitigation systems at other structures in the area have demonstrated effectiveness in addressing vapor intrusion concerns. Long-term effectiveness of the vapor intrusion mitigation systems would be provided by establishing and implementing O&M procedures to ensure that the systems continue to mitigate the potential threat to human health posed by vapor intrusion at impacted structures at the Site.

- Reduction in Toxicity, Mobility, or Volume via Treatment

Alternatives 1 and 2 would provide no reduction in toxicity, mobility, or volume. However, under Alternative 2, Site-related contaminants in vapor form would be prevented from entering into buildings at concentrations that represent a potential threat to human health.

- Short-term Effectiveness

Alternative 1 does not involve any active construction activities that could present a risk to workers or the public.

Implementation of Alternative 2 would not be expected to result in short-term risks to the community, the workers installing the vapor intrusion mitigation systems, or the environment in general. Any potential threats to the workers from inhaling hazardous substances in vapor form during system installation would be minimized with the implementation of appropriate health and safety measures.

As for short term impacts, no time is required for construction of Alternative 1. Under Alternative 2, the installation of sub-slab depressurization systems can be completed in as little as one to two days and it can take up to one week for the installation of larger commercial systems. While, for planning purposes, it is estimated that Alternative 2 may take up to five years to install the estimated 100 systems to address vapor intrusion concerns within the Study Area, this would not, however, be a continuous five years of effort. Rather, the installations would happen as the need is determined through the ongoing OU1 RI/FS process.

- Implementability

Alternative 1 does not involve the application of any technology, therefore, there are no issues relating to feasibility of implementation.

Alternative 2 is considered to be readily implementable. The installation of vapor mitigation systems under Alternative 2 would use readily available services and equipment. Such systems have already been installed at other buildings in the area and have shown to be reliable and effective in addressing vapor intrusion and mitigating exposures.

- Cost

There is no cost associated with Alternative 1 because no activities are implemented. The estimated cost of Alternative 2 was developed as a range of costs because the total number of residential versus non-residential buildings that require vapor mitigation is not currently known. In addition, the actual costs could vary depending on the particular building and would be determined during design. The estimated total cost includes capital costs and O&M costs for one year to ensure the system is operating properly. After one year, O&M of the vapor mitigation system is turned over to the State.

Note that Alternative 2 provides for the potentiality of designing, installing, and maintaining vapor mitigation systems, but it does not address the electricity costs to operate the vapor mitigation system. The operating costs for these systems are minimal, similar to costs to operate radon mitigation systems, and they would be the responsibility of the property owner. The estimated total cost for Alternative 2 is $1,145,200.

- State Acceptance

The State of New York concurs with the selected remedy.

- Community Acceptance

Based upon the comments received during on the Proposed Plan, the community is generally accepting of the EPA's preferred alternative. Several comments and questions related to the RALs and increasing participation in the sampling program were raised both during the public meeting to discuss the proposed plan and in writing during the public comment period. These comments are addressed in Appendix V, Responsiveness Summary.

PRINCIPAL THREAT WASTE

The NCP establishes an expectation that the EPA will use treatment to address the principal threats posed by a site whenever practicable (NCP Section 300.430(a)(1)(iii)(A)). The "principal threat" concept is applied to the characterization of "source materials" at a Superfund site. A source material is material that includes or contains hazardous substances, pollutants, or contaminants that act as a reservoir for the migration of contamination to groundwater, surface water, or air, or act as a source for direct exposure. Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment in the event that exposure should occur. The decision to treat these wastes is made on a site-specific basis through a detailed analysis of alternatives, using the remedy selection criteria described above. The

manner in which principal threat wastes are addressed provides a basis for making a statutory finding that the remedy employs treatment as a principal element.

This response action does not address source materials constituting principal threat wastes because no such materials are part of this operable unit. The interim action that is being evaluated in this Record of Decision solely addresses vapor intrusion of contaminants into structures from subsurface sources of contamination. Soil vapor is neither a source material nor a principal threat waste.

SELECTED REMEDY

Based upon considerations of the results of the RI/FS, the requirements of CERCLA, the detailed analyses of the response measures and public comments, EPA has determined that Alternative 2 is the appropriate remedy for the OU2 at the Site because it best satisfies the requirements of CERCLA Section 121, 42 U.S.C. §9621, and the NCP's nine evaluation criteria for remedial alternatives, 40 CFR §300.430(e)(9).

Description of the Selected Remedy

The major components of the selected remedy include the following:

- Vapor intrusion mitigation at residential and non-residential structures where multiple lines of evidence indicate that subsurface vapor intrusion is occurring, or has potential to occur, at concentrations that represent a threat, or potential threat, to human health. The vapor mitigation strategy to be used has the following key components, some or all of which may be used at any particular property:
    - Installation of a sub-slab depressurization system.
    - Preventative engineering measures such as the sealing of cracks and gaps in the lowest level of a structure and installing a concrete slab or comparable membrane system in instances where only a dirt floor is present.
- The operation and maintenance of the vapor mitigation measures for one year, after which responsibility for operation and maintenance will be turned over to NYSDEC.

The estimated present-worth cost of the selected remedy is $1,145,200.

Summary of the Rationale for the Selected Remedy

Based upon the information currently available, EPA believes that the selected remedy meets the threshold criteria to protect human health and the environment by preventing COCs from entering indoor air at levels that pose an unacceptable risk. The exact number of residential properties to be remediated will be determined upon completion of additional vapor intrusion sampling during the ongoing OU1 RI/FS. Based upon the information currently available, EPA believes that the selected remedy meets the threshold criteria and provides the best balance of tradeoffs compared to the other alternative with respect to the balancing and modifying criteria

set forth in the NCP. The selected remedy is considered protective of human health and the environment in the short-term until a final remedy is implemented for the Site. Although this interim action is not intended to address fully the statutory mandates, the selected remedy, if implemented, would satisfy the statutory requirements of CERCLA Section 121(b), namely being (1) protective of human health and the environment and (2) cost effective. EPA expects the final remedy for the Site will fully satisfy the statutory requirements. The selected remedy would be readily implementable using technologies proven to be effective at this Site, as well as similar sites. The short-term effects of the selected remedy include potential impacts to workers, but these could be mitigated using appropriate health and safety measures.

Expected Outcomes of the Selected Remedy

The selected remedy will meet the RAOs because it would control exposure to Site-related contaminants from vapor intrusion into residential and non-residential structures and contaminated sub-slab vapor would be prevented from entering and/or accumulating in buildings at concentrations that represent a potential threat to human health.

Green Remediation

EPA Region 2 Clean and Green Policy[4] (Policy) provides guidance for the implementation of green remediation for response actions in the region. The goal of the Policy is to enhance the environmental benefits of federal cleanup programs by promoting technologies and practices that are sustainable, while complying with all applicable laws and regulations. The objectives of green remediation are to: protect human health and the environment by achieving remedial action goals; support human and ecological use and reuse of remediated land; minimize impacts to water quality and water resources; reduce air emissions and greenhouse gas production; minimize material use and waste production; and conserve natural resources and energy.

This Policy establishes touchstone practices that are both quantifiable and reportable. The region uses reporting requirements in enforcement instruments, grants, and contracts to collect and report metrics annually. Examples of touchstone practices that may be used during the implementation of the selected remedy are:

- Use of renewable energy, and energy conservation and efficiency approaches including EnergyStar equipment
- Cleaner fuels and clean diesel technologies and strategies
- Water conservation and efficiency approaches including WaterSense products
- Sustainable site design
- Industrial material reuse or recycling within regulatory requirements
- Recycling applications for materials generated at or removed from the site
- Environmentally Preferable Purchasing
- Greenhouse gas emission reduction technologies

[4] See http://www.epa.gov/greenercleanups/epa-region-2cleanand-green-policy

Green remediation techniques, as detailed in NYSDEC's Green Remediation Program Policy-DER-31,[5] will also be considered during the implementation of the selected remedy to reduce short-term environmental impacts.

STATUTORY DETERMINATIONS

As previously noted, CERCLA Section 121(b)(1), 42 U.S.C. § 9621(b)(1), mandates that a remedial action must be protective of human health and the environment, cost effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, or contaminants at a site. CERCLA Section 121(d), 42 U.S.C. § 9621(d), further specifies that a remedial action must attain a degree of cleanup that satisfies ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA Section 121(d)(4), 42 U.S.C. § 9621(d)(4).

For the reasons discussed below, EPA has determined that the selected interim remedy meets the requirements of CERCLA Section 121, 42 U.S.C. §9621.

Protection of Human Health and the Environment

It is expected that the selected remedy will be protective of human health and the environment. Protection of human health will be achieved by mitigation actions including sealing cracks and gaps in the slab, installing a concrete slab or comparable membrane system in instances where only a dirt floor is present, and installing active sub-slab depressurization systems at structures where EPA has determined that vapor intrusion is occurring, or has the potential to occur, at concentrations that represent a potential threat to human health. The mitigation actions will prevent contaminants in vapor form from migrating from the subsurface into indoor air at concentrations that represent a threat to human health.

Compliance with ARARs

In accordance with the NCP (40 CFR § 300.430(f)(l)(ii)(C)(l)), interim response actions such as this action are not required to comply with ARARs as long as the final remedial action at the Site will attain them. Consequently, we have not identified any ARARs that must be attained for this interim action.

Cost-Effectiveness

A cost-effective remedy is one in which costs are proportional to its overall effectiveness (40 CFR § 300.430(f)(1)(ii)(D)). Overall effectiveness is based on the evaluations of long-term effectiveness and permanence, reduction in toxicity, mobility, and volume through treatment, and short-term effectiveness. Overall effectiveness was evaluated by assessing three of the five balancing criteria in combination (long-term effectiveness and permanence; reduction in toxicity,

[5] http://www.dec.ny.gov/docs/remediation_hudson_pdf/der31. pdf

mobility, and volume through treatment; and short-term effectiveness). Overall effectiveness was then compared to costs to determine cost-effectiveness.

Each of the alternatives underwent a detailed cost analysis. In that analysis, capital and operation and maintenance costs were estimated and used to develop present-worth costs. In the present-worth cost analysis, operation and maintenance costs were calculated for the estimated life of each alternative. The total estimated present worth cost for implementing the selected remedy is $1,145,200.

Based on the comparison of overall effectiveness to cost, the selected remedy meets the statutory requirement that Superfund remedies be cost effective (40 CFR § 300.430(f)(1)(ii)(D)) in that it represents reasonable value for the money to be spent. A five-year timeframe was used for planning and estimating purposes to mitigate vapor intrusion, although mitigation timeframes could exceed this estimate.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The selected remedy is an interim action and is not intended to be a permanent solution. The remedy uses alternative treatment (or resource recovery) technologies to the maximum extent practicable. Based on the findings of the OU1 RI/FS, future remedial actions are expected to address the contaminated groundwater, which will address the underlying cause of vapor intrusion into structures at OU2 of the Site.

Preference for Treatment as a Principal Element

The selected remedy does not meet the statutory preference for remedies that employ treatment as a principal element because vapor mitigation technologies do not treat the subsurface vapors, and treatment of groundwater and/or soil gas is outside the scope of this OU2 interim action.

Five-Year Review Requirements

A review of the remedial action pursuant to CERCLA Section 121(c), 42 U.S.C. §9621(c), will be conducted five years after the commencement of the remedial action to ensure that the remedy continues to provide adequate protection to human health and the environment because this remedy will result in hazardous substances remaining on-Site above health-based levels that allow for unlimited use and unrestricted exposure. Five-year reviews will continue until a final remedy is selected, at which point, the five-year review requirement will be re-evaluated.

DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for OU2 of the Site was released on April 5, 2024. The Proposed Plan identified Alternative 2 as the preferred alternative for addressing vapor intrusion and solicited public comment. EPA reviewed all written (including electronic formats such as e-mail) and verbal comments received during the public comment period and has determined that no significant changes to the remedy, as originally proposed in the Proposed Plan, are necessary or appropriate.

The following issues/concerns have been clarified in this Record of Decision from what was presented in the Proposed Plan:

- Whether to apply the residential RAL or Commercial/Industrial RAL will be determined on a case-by-case basis, in consultation with NYSDEC and NYSDOH. In general, EPA understands that many properties that are zoned for non-residential use may be used, either regularly or from time-to-time, in what would be more consistent with residential exposure assumptions. The residential RALs may be used at any property, residential or non-residential, if there is any reason to believe the commercial/industrial RALs are not sufficiently conservative, either under current or reasonably anticipated future use scenarios.

- If additional contaminants of concern are identified during the ongoing OU1 RI/FS that may adversely affect indoor air, EPA's VISLs and NYSDOH guidance will be reviewed and, if warranted, appropriate mitigative actions will be taken.

APPENDIX I

FIGURES

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Site Location Map
Meeker Avenue Plume
Superfund Site
Preliminary Study Area
Brooklyn, Kings County, NY

Figure 1

AECOM

APPENDIX II

TABLES

Table 1
Summary of Contaminants of Concern and Medium-Specific Exposure Point Concentrations

Scenario Timeframe: Current/Future Resident
Medium: Groundwater
Exposure Medium: Indoor Air or Sub-slab

Sampling Timeframe	Property Identifier	Exposure Point	Contaminant of Concern	Concentration Detected		Concentration Units	Exposure Point Concentration	Exposure Point Concentration Units	Statistical Measure
				Min	Max				
2008/2009 Heating Season	P001	Indoor Air	Tetrachloroethylene (PCE)	NA	170	µg/m³	170	µg/m³	Maximum
			Trichloroethylene (TCE)	NA	12	µg/m³	12	µg/m³	Maximum
		Sub-Slab	Tetrachloroethylene (PCE)	NA	4,200	µg/m³	4,200	µg/m³	Maximum
			Trichloroethylene (TCE)	NA	300	µg/m³	300	µg/m³	Maximum
	P002	Indoor Air	Tetrachloroethylene (PCE)	NA	20	µg/m³	20	µg/m³	Maximum
			Trichloroethylene (TCE)	NA	2.8	µg/m³	2.8	µg/m³	Maximum
		Sub-Slab	Tetrachloroethylene (PCE)	NA	1,400	µg/m³	1,400	µg/m³	Maximum
			Trichloroethylene (TCE)	NA	120	µg/m³	120	µg/m³	Maximum
2009/2010 Heating Season	P001	Indoor Air	Tetrachloroethylene (PCE)	NA	48	µg/m³	48	µg/m³	Maximum
			Trichloroethylene (TCE)	NA	3.1	µg/m³	3.1	µg/m³	Maximum
	P002	Indoor Air	Tetrachloroethylene (PCE)	NA	37	µg/m³	37	µg/m³	Maximum
			Trichloroethylene (TCE)	NA	1.8	µg/m³	1.8	µg/m³	Maximum
2022 Heating Season	P005	Indoor Air	Trichloroethylene (TCE)	NA	0.549	µg/m³	0.549	µg/m³	Maximum
	P006	Sub-Slab	Trichloroethylene (TCE)	NA	18	µg/m³	18	µg/m³	Maximum

Scenario Timeframe: Current/Future Commercial Worker
Medium: Groundwater
Exposure Medium: Indoor Air or Sub-slab

Sampling Timeframe	Property Identifier	Exposure Point	Contaminant of Concern	Concentration Detected		Concentration Units	Exposure Point Concentration	Exposure Point Concentration Units	Statistical Measure
				Min	Max				
2020/2021 Heating Season	P003	Indoor Air	Trichloroethylene (TCE)	NA	7.1	µg/m³	7.1	µg/m³	Maximum
		Sub-Slab	Trichloroethylene (TCE)	NA	29,000	µg/m³	29,000	µg/m³	Maximum

Notes:
µg/m³ = microgram per cubic meter
NA= not applicable/available

Table 2
Selection of Exposure Pathways

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future	Groundwater	Sub-slab	Sub-slab	Residents	Child and Adult	Inhalation	Quantitative	Residents could be exposed to contaminants in indoor air via migration from sub-slab soil gas. The investigation of chemical vapors that may be entering residential homes from contaminated groundwater below the structures associated with Meeker Avenue Plume Superfund Site are ongoing.
		Indoor Air	Indoor Air					
		Sub-slab	Sub-slab	Commercial/Industrial Worker	Adult	Inhalation	Quantitative	Commercial/industrial workers could be exposed to contaminants in indoor air via migration from sub-slab soil gas. The investigation of chemical vapors that may be entering commercial buildings from contaminated groundwater below the structures associated with Meeker Avenue Plume Superfund Site are ongoing.
		Indoor Air	Indoor Air					

Table 3
Non-Cancer Toxicity Data Summary

Pathway: Inhalation

Contaminant of Concern	Chronic/ Subchronic	Inhalation RfC	Inhalation RfC Units	Primary Target Organ	Combined Uncertainty /Modifying Factors	Sources of RfC Target Organ	Dates of RfC
Tetrachloroethylene (PCE)	Chronic	0.04	mg/m^3	Neurotoxicity (reaction time, cognitive effects, color vision) in occupationally- exposed adults	1000	IRIS	2/10/2012
Trichloroethylene (TCE)	Chronic	0.002	mg/m^3	Multiple (listed below)	Multiple (listed below)	IRIS	9/28/2011
		0.0019	mg/m^3	Decreased thymus weight in mice	100		
		0.0021	mg/m^3	Increased fetal heart malformations in rats	10		

Notes:
IRIS = EPA's Integrated Risk Information System
mg/m^3 = milligram per meter cubed
RfC = reference concentration

Table 4 Cancer Toxicity Data Summary						
Pathway: Inhalation						
Contaminant of Concern	**Inhalation Unit Risk**	**Units**	**Weight of Evidence/ Cancer Guideline**	**Mutagen (Y/N)**	**Source**	**Date**
Tetrachloroethylene (PCE)	2.6×10^{-7}	$(\mu g/m^3)^{-1}$	Likely to be carcinogenic to humans	N	IRIS	2/10/2012
Trichloroethylene (TCE)	4.1×10^{-6}	$(\mu g/m^3)^{-1}$	Carcinogenic to humans	Y*	IRIS	9/28/2011

Notes:

IRIS = EPA's Integrated Risk Information System (https://www.epa.gov/iris)

$(\mu g/m^3)^{-1}$ = per micrograms per cubic meter

* EPA has concluded that TCE is carcinogenic by a mutagenic mode of action (i.e, it is a mutagen). Application of age-dependent adjustment factors (ADAFs) to the inhalation unit risk was done to account for early life susceptibility

Table 5
Risk Characterization Summary - Non-Carcinogens

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P001 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient			
						Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2008/2009 Heating Season	Indoor Air	Indoor Air	Tetrachloroethylene (PCE)	Nervous system, Ocular	--	4	--	4
				Trichloroethylene (TCE)	Developmental, Immune	--	6	--	6
								Indoor Air Hazard Index (HI) Total=	**10**
								Nervous System HI=	**4**
								Ocular HI=	**4**
								Developmental HI=	**6**
								Immune System HI=	**6**
		Sub-slab	Sub-slab	Tetrachloroethylene (PCE)	Nervous system, Ocular	--	3	--	3
				Trichloroethylene (TCE)	Developmental, Immune	--	4	--	4
								Sub-slab Hazard Index (HI) Total=	**7**
								Nervous System HI=	**3**
								Ocular HI=	**3**
								Developmental HI=	**4**
								Immune System HI=	**4**
	2009/2010 Heating Season	Indoor Air	Indoor Air	Tetrachloroethylene (PCE)	Nervous system, Ocular	--	1	--	1
				Trichloroethylene (TCE)	Developmental, Immune	--	1.5	--	1.5
								Indoor Air Hazard Index (HI) Total=	**2.5**
								Nervous System HI=	1
								Ocular HI=	1
								Developmental HI=	**2**
								Immune System HI=	**2**

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P002 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient			
						Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2008/2009 Heating Season	Indoor Air	Indoor Air	Tetrachloroethylene (PCE)	Nervous system, Ocular	--	0.5	--	0.5
				Trichloroethylene (TCE)	Developmental, Immune	--	1	--	1
								Indoor Air Hazard Index (HI) Total=	**1.5**
								Nervous System HI=	0.5
								Ocular HI=	0.5
								Developmental HI=	1
								Immune System HI=	1
		Sub-slab	Sub-slab	Tetrachloroethylene (PCE)	Nervous system, Ocular	--	1	--	1
				Trichloroethylene (TCE)	Developmental, Immune	--	2	--	2
								Sub-slab Hazard Index (HI) Total=	**3**
								Nervous System HI=	1
								Ocular HI=	1
								Developmental HI=	**2**
								Immune System HI=	**2**
	2009/2010 Heating Season	Indoor Air	Indoor Air	Tetrachloroethylene (PCE)	Nervous system, Ocular	--	0.9	--	0.9
				Trichloroethylene (TCE)	Developmental, Immune	--	0.9	--	0.9
								Indoor Air Hazard Index (HI) Total=	**1.8**
								Nervous System HI=	0.9
								Ocular HI=	0.9
								Developmental HI=	0.9
								Immune System HI=	0.9

Scenario Timeframe: Current/Future
Receptor Population: Commercial Worker (adult)
Property Identifier: P003 (Commercial)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient			
						Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2020/2021 Heating Season	Indoor Air	Indoor Air	Trichloroethylene (TCE)	Developmental, Immune	--	0.8	--	0.8
								Indoor Air Hazard Index (HI) Total=	0.8
								Developmental HI=	0.8
								Immune System HI=	0.8
		Sub-slab	Sub-slab	Trichloroethylene (TCE)	Developmental, Immune	--	99	--	**99**
								Sub-slab Hazard Index (HI) Total=	**99**
								Developmental HI=	**99**
								Immune System HI=	**99**

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P005 (Residential)

Medium	Sampling	Exposure	Exposure	Contaminant of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient

	Timeframe	Medium	Point			Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2022 Heating Season	Indoor Air	Indoor Air	Trichloroethylene (TCE)	Developmental, Immune	--	0.3	--	0.3
								Indoor Air Hazard Index (HI) Total=	0.3
								Developmental HI=	0.3
								Immune System HI=	0.3

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P006 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient			
						Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2022 Heating Season	Sub-slab	Sub-slab	Trichloroethylene (TCE)	Developmental, Immune	--	0.3	--	0.3
								Sub-Slab Hazard Index (HI) Total=	0.3
								Developmental HI=	0.3
								Immune System HI=	0.3

Bolded cells indicate noncancer risk estimates exceedances (HI>1) associated with indoor air or sub-slab exposure
Shaded cells indicate exceedances of the noncancer hazard threshold of 1 for indoor air

Table 6
Risk Characterization Summary - Carcinogens

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P001 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Carcinogenic Risk			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2008/2009 Heating Season	Air	Indoor Air	Tetrachloroethylene (PCE)	--	1.57E-05	--	1.57E-05
				Trichloroethylene (TCE)	--	2.51E-05	--	2.51E-05
							Indoor Air Cancer Risk=	4.1E-05
			Sub-slab	Tetrachloroethylene (PCE)	--	1.17E-05	--	1.17E-05
				Trichloroethylene (TCE)	--	1.88E-05	--	1.88E-05
							Sub-slab Cancer Risk=	3.1E-05

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P001 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Carcinogenic Risk			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2009/2010 Heating Season	Air	Indoor Air	Tetrachloroethylene (PCE)	--	4.44E-06	--	4.44E-06
				Trichloroethylene (TCE)	--	6.48E-06	--	6.48E-06
							Indoor Air Cancer Risk=	1.1E-05

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P002 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Carcinogenic Risk			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2008/2009 Heating Season	Air	Indoor Air	Tetrachloroethylene (PCE)	--	1.85E-06	--	1.85E-06
				Trichloroethylene (TCE)	--	5.85E-06	--	5.85E-06
							Indoor Air Cancer Risk=	7.7E-06
			Sub-slab	Tetrachloroethylene (PCE)	--	3.89E-06	--	3.89E-06
				Trichloroethylene (TCE)	--	7.53E-06	--	7.53E-06
							Sub-slab Cancer Risk=	1.1E-05

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P002 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Carcinogenic Risk			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2009/2010 Heating Season	Air	Indoor Air	Tetrachloroethylene (PCE)	--	3.43E-06	--	3.43E-06
				Trichloroethylene (TCE)	--	3.76E-06	--	3.76E-06
							Indoor Air Cancer Risk=	7.2E-06

Scenario Timeframe: Current/Future
Receptor Population: Commercial Worker (adult)
Property Identifier: P003 (Commerciall)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Carcinogenic Risk			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	2020/2021 Heating Season	Air	Indoor Air	Trichloroethylene (TCE)	--	2.37E-06	--	2.37E-06
							Indoor Air Cancer Risk=	2.4E-06
			Sub-slab	Trichloroethylene (TCE)	--	2.91E-04	--	2.91E-04
							Sub-slab Cancer Risk=	**2.9E-04**

Scenario Timeframe: Current/Future
Receptor Population: Resident (adult/child)
Property Identifier: P005 (Residential)

Medium	Sampling Timeframe	Exposure Medium	Exposure Point	Contaminant of Concern	Carcinogenic Risk			
					Ingestion	Inhalation	Dermal	Exposure Routes Total

Groundwater	2022 Heating Season	Air	Indoor Air	Trichloroethylene (TCE)	--	1.15E-06	--	1.15E-06
							Indoor Air Cancer Risk=	1.2E-06
Scenario Timeframe: Current/Future **Receptor Population**: Resident (adult/child) **Property Identifier:** P006 (Residential)								
Medium	**Sampling Timeframe**	**Exposure Medium**	**Exposure Point**	**Contaminant of Concern**	**Carcinogenic Risk**			
					Ingestion	**Inhalation**	**Dermal**	**Exposure Routes Total**
Groundwater	2022 Heating Season	Air	Sub-slab	Trichloroethylene (TCE)	--	1.13E-06	--	1.13E-06
							Sub-Slab Cancer Risk=	1.1E-06

Bolded cells indicate cancer risk estimate exceedances (cancer risk>10^{-4}) associated with indoor air or sub-slab exposure

Table 7
Cost Estimate

Description	Quantity	Unit	Unit Cost	Cost
Construction Activities				
Vapor Intrusion Sampling, Testing and Analysis	2	Events	$52,500	$105,000
Professional and Technical Services				
Remedial Design	1	LS	$10,000	$10,000
Project and Construction Management	1	LS	$15,000	$15,000
Vapor Intrusion Mitigation Systems				
Residential Installations	100	EA	$7,215	$721,500
			Capital Costs Subtotal	$851,500
			10% Legal, Administrative, Engineering Fees	$85,200
			20% Contingencies	$187,300
			Capital Cost Total	**$1,124,000**
Annual O&M Costs				
Average Annual O&M	10	EA	$1,608	$16,100
			Annual Cost Subtotal	$16,100
			10% Legal, Administrative, Engineering Fees	$1,600
			20% Contingencies	$3,500
			Annual Cost Total	**$21,200**
			Total Cost	**$1,145,200**

Note: Costs included in this estimate were obtained from EPA personnel experienced with vapor intrusion projects, mitigation system installations, and maintenance of those systems.

Key:
EA = Each
LS = Lump Sum

APPENDIX III

ADMINISTRATIVE RECORD INDEX

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL

09/27/2024 **REGION ID: 02**

Site Name: MEEKER AVENUE PLUME
CERCLIS ID: NYN000203407
OUID: 02
SSID: A29M
Action:

DocID:	Doc Date:	Title:	Image Count:	Doc Type:	Addressee Name/Organization:	Author Name/Organization:
701406	09/27/2024	ADMINISTRATIVE RECORD INDEX FOR OU2 FOR THE MEEKER AVENUE PLUME SITE	3	Administrative Record Index		(US ENVIRONMENTAL PROTECTION AGENCY)
190145	06/01/2015	OSWER TECHNICAL GUIDE FOR ASSESSING AND MITIGATING THE VAPOR INTRUSION PATHWAY FROM SUBSURFACE VAPOR SOURCES TO INDOOR AIR	267	Laws/Regulations/Guidance		
543567	09/01/2021	HRS DOCUMENTATION RECORD FOR THE MEEKER AVENUE PLUME SITE	270	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543568	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 6 - FOR THE MEEKER AVENUE PLUME SITE	604	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543569	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCES 7-15 - FOR THE MEEKER AVENUE PLUME SITE	316	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543570	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 16 - FOR THE MEEKER AVENUE PLUME SITE	345	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543571	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 17 - FOR THE MEEKER AVENUE PLUME SITE	1202	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543572	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 18 - FOR THE MEEKER AVENUE PLUME SITE	730	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL

09/27/2024 **REGION ID: 02**

Site Name: MEEKER AVENUE PLUME
CERCLIS ID: NYN000203407
OUID: 02
SSID: A29M
Action:

DocID:	Doc Date:	Title:	Image Count:	Doc Type:	Addressee Name/Organization:	Author Name/Organization:
543573	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCES 19-21 - FOR THE MEEKER AVENUE PLUME SITE	768	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543574	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 22 - FOR THE MEEKER AVENUE PLUME SITE	4483	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543575	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 23 - FOR THE MEEKER AVENUE PLUME SITE	1466	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543576	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 24 - FOR THE MEEKER AVENUE PLUME SITE	2992	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543577	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 25 - FOR THE MEEKER AVENUE PLUME SITE	533	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543578	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 26 - FOR THE MEEKER AVENUE PLUME SITE	2327	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543579	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 27 - FOR THE MEEKER AVENUE PLUME SITE	1414	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
543580	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCE 28 - FOR THE MEEKER AVENUE PLUME SITE	1829	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL

09/27/2024 **REGION ID: 02**

Site Name: MEEKER AVENUE PLUME
CERCLIS ID: NYN000203407
OUID: 02
SSID: A29M
Action:

DocID:	Doc Date:	Title:	Image Count:	Doc Type:	Addressee Name/Organization:	Author Name/Organization:
543581	09/01/2021	HRS DOCUMENTATION RECORD - REFERENCES 29-30 - FOR THE MEEKER AVENUE PLUME SITE	1799	Report		DESIR,JAMES (US ENVIRONMENTAL PROTECTION AGENCY)
718460	02/22/2024	FINAL QUALITY ASSURANCE AND PROJECT PLAN ADDENDUM FOR THE VAPOR INTRUSION INVESTIGATION SAMPLING FOR OU2 FOR THE MEEKER AVENUE PLUME SITE	204	Work Plan		(AECOM)
718459	03/31/2024	DRAFT FINAL FOCUSED FEASIBILITY STUDY FOR OU2 FOR THE MEEKER AVENUE PLUME SITE	60	Report		(US ENVIRONMENTAL PROTECTION AGENCY)
701407	04/05/2024	PROPOSED PLAN FOR OU2 FOR THE MEEKER AVENUE PLUME SITE	13	Publication		(US ENVIRONMENTAL PROTECTION AGENCY)

APPENDIX IV

STATE LETTER OF CONCURRENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director
625 Broadway, 12th Floor, Albany, New York 12233-7011
P: (518) 402-9706 | F: (518) 402-9722
www.dec.ny.gov

September 18, 2024

Mr. Pat Evangelista – Director
Superfund and Emergency Management Division
U.S. Environmental Protection Agency
290 Broadway, 19th Floor
New York, NY 10007

RE: Meeker Avenue Plume Superfund Site
Operable Unit 2, Kings County, New York
NYSDEC Site ID No.: 224121

Dear Mr. Evangelista:

The New York State Departments of Environmental Conservation (NYSDEC) and Health (NYSDOH) have reviewed the United States Environmental Protection Agency's September 2024, Draft Superfund Record of Decision for the Meeker Avenue Plume Operable Unit 2 (OU2), Kings County, New York. Based on that review, we understand that the selected remedy is an interim action to address the potential for exposure via the soil vapor intrusion pathway while the Remedial Investigation/Feasibility Study for Operable Unit 1 is ongoing, and that this does not constitute the final remedy for the site.

Based on the information currently available, NYSDEC agrees that the selected Alternative 2 of this Superfund Record of Decision meets the threshold criteria and is protective of human health and the environment. Therefore, the NYSDEC concurs with the EPA's selected alternative.

Sincerely,

Andrew Guglielmi

Andrew O. Guglielmi, Director
Division of Environmental Remediation

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APPENDIX V

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY
Meeker Avenue Plume Superfund Site
Operable Unit 2
Brooklyn, New York

INTRODUCTION

This Responsiveness Summary provides a summary of the public's comments and concerns regarding the Proposed Plan for Operable Unit 2 (OU2) of the Meeker Avenue Plume Superfund site (site), and the U.S. Environmental Protection Agency's (EPA's) responses to those comments. All comments summarized in this document have been considered in EPA's decision for the selection of a remedy for OU2 at the site under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

This Responsiveness Summary is divided into the following sections:

I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

This section provides the history of community involvement and interests regarding the site.

II. COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS, AND RESPONSES

This section contains summaries of written and verbal comments received by EPA at the public meeting and during the public comment period, and it contains EPA's responses to these comments.

The last section of this Responsiveness Summary includes attachments which document public participation in the remedy selection process for this site. They are as follows:

Attachment A contains the Proposed Plan that was distributed to the public for review and comment;

Attachment B contains the public notice that was published in the Brooklyn Daily Eagle, on the Nowy Dziennik website, and via the Greenpointers newsletter on April 5, 2024, and in Abecadlo on April 12, 2024. It also includes the notice of extension published via the Greenpointers newsletter on April 12, 2024, in the Brooklyn Daily Eagle and in Abecadlo on April 19. 2024, and in Nowy Dziennik on April 20, 2024. The notices were published in English, as well as in Spanish and Polish for the non-English speaking communities within and surrounding the Meeker Avenue Plume site;

Attachment C contains the public comments received during the public comment period; and

Attachment D contains the transcript of the public meeting held on April 16, 2024 at the St. Stanislaus Kostka Church, Brooklyn, New York.

I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

Since the inclusion of the site on the National Priorities List in 2022, public interest in the site has been high. EPA has strongly encouraged and received public input since the listing of the site. EPA published a Community Involvement Plan in 2023. This 2023 Community Involvement Plan outlines specific outreach tools to facilitate transparent and accessible communication with the community in the decision-making process and to solicit public input on site activities. EPA also sends out monthly email updates to the community to keep them informed of ongoing activities at the site.

In 2023, EPA provided Technical Assistance Services for Communities (TASC) support to the Meeker Avenue Plume Community Advisory Group (CAG) for strategy, engagement, and outreach. The TASC contract was amended in 2024 to provide the CAG with technical support, interpretation and translation services, and administrative support on an as-needed basis.

EPA also provides the support of a neutral facilitator to the CAG. The neutral facilitator assisted in the formation of the CAG, including development of the mission statement, structure, and operating procedures. The neutral facilitator also assists the CAG in planning and conducting meetings.

The CAG holds its meetings in the surrounding community and serves in a technical review and advocacy capacity on behalf of the community. The CAG membership includes representatives from local businesses, environmental organizations, community residents, and other interested parties from Brooklyn. The CAG regularly conducts outreach in the community to encourage public participation in site-related activities and engages social-media outlets to ensure project information is broadcast widely. In addition, the CAG maintains a webpage and an email list to disseminate project-related information, including the dates of upcoming meetings and site updates.

II. COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS AND RESPONSES

Comments and/or questions were received at the public meeting, in addition to two written letters (via email), one from the Meeker Avenue Plume Community Advisory Group (CAG) and one from Brooklyn Community Board No. 1. North Brooklyn Neighbors, a local environmental group, also indicated their support for the CAG's comments via email. In addition, one comment was received via email during the comment period. Copies of the comment letters and emails are provided in Attachment A, and a copy of the public meeting transcript is provided in Attachment D. A summary of the significant comments provided at the public meeting and in writing, as well as EPA's responses to those comments, are provided below.

The sign-in sheets indicate that approximately 25 people attended the April 16, 2024 public meeting. The meetings' attendees included residents, Community Advisory Group members, local business representatives, interested community members, journalists, elected officials, and representatives from the New York State Department of Environmental Conservation and the New York State Department of Health.

Part 1: Written Comments

A comment letter (via electronic format) was submitted by the Meeker Avenue CAG. The letter contained several comments, which are summarized below, along with EPA responses. A representative of North Brooklyn Neighbors sent a separate email reiterating the CAG's concerns and expressing general support for the action.

Comment 1: The CAG is concerned that access for testing is being granted at too slow of a rate and would like to know how EPA intends to improve its success rate at getting access to test buildings at risk of vapor intrusion within the Study Area. They would like to see new strategies for outreach, including to non-residential properties.

> **EPA Response 1**: EPA is actively exploring ways to improve the outreach approach at the site. The Community Involvement Plan is being updated and further developed and the Region intends to discuss it with the community prior to the next winter heating season to explore additional strategies for increasing participation. EPA appreciates the CAG's offer to continue helping with outreach and understands that our mission is to protect the community from elevated risks posed by site-related contamination. Cleanup efforts at the site are being conducted in an expedited fashion on parallel tracks to (i) address the immediate risks posed by vapor intrusion and (ii) determine the full nature and extent of contamination at the site so that the sources of the contamination leading to vapor intrusion can be addressed. Signature of this ROD will give the Region the ability to quickly mitigate any vapor intrusion concerns that are discovered, and the ongoing groundwater investigation will help to better focus ongoing outreach efforts on areas where vapor intrusion is most likely to occur. The discovery and mitigation of unacceptable risks in indoor air at residential and non-residential structures resulting from site-related contamination is the Region's top priority for the site.

Comment 2: The CAG would like clarity on how realistic it would be for EPA to compel testing in a systematic way.

> **EPA Response 2**: EPA will consider the need for use of its enforcement authorities at every property where access is sought and not granted. EPA has the ability to compel access to properties to conduct vapor intrusion sampling and is trying to do so in a systematic and balanced manner, taking into consideration our current understanding of the nature and extent of contamination at the site, as well as people's individual rights to

privacy and autonomy. As mentioned in the response to Comment 1, cleanup efforts at the site are being conducted on two tracks. As we gain a better understanding of where contamination concentrations are elevated in the subsurface, we can use that information to better focus our outreach efforts, including our use of access authorities if determined to be appropriate. Other reasons EPA may decide to utilize legal authority to gain access include, but are not necessarily limited to, the construction characteristics of a building and the presence of sensitive receptors in the building (e.g., day care facilities, schools or senior centers). While multiple lines of evidence can and will be used by EPA in making determinations about where and when to use our access authorities, it must be noted that vapor intrusion issues do not necessarily follow a clear pattern and two adjacent buildings can have different results (i.e., one could be found to have a vapor intrusion concern and the neighboring building could not). While testing as many properties as possible overlying the plume of contamination is ideal, note that vapor intrusion impacts occur on a structure-by-structure basis and the lack of testing at any individual property will not impact EPA's ability to mitigate concerns at the neighboring properties, if needed.

Comment 3: The CAG would like to know the number of properties where access was refused.

EPA Response 3: EPA has been going through a systematic process of reaching out to potentially impacted properties within the Study Area. A review of lot and block tax maps shows that there are an estimated 943 lots within the preliminary Study Area. Not every one of these lots necessarily has a structure, so this would be an outside estimate of how many structures are potentially impacted. Lot and block maps also do not tell us how many individual units or businesses are potentially impacted (for example, any individual lot could have multiple basement and first floor units that require testing). Of these lots, we know that prior to EPA's direct involvement with the site in March 2022, NYSDEC had tested 166 buildings and mitigated 26 of them for vapor intrusion impacts. If we very conservatively assume that NYSDEC did not reach out to any other properties during their time as lead agency for the site from 2007 to 2022 (which is not actually the case), then this leaves approximately 700 structures that may or may not have ever been contacted by NYSDEC or EPA at the time that the site listed on the National Priorities list in March 2022.

EPA has been working with the City of New York to compile mailing addresses for these remaining properties and has sent informational postcards and/or letters to more than 500 properties since March 2022. EPA has also tried several additional ways to obtain voluntary access to these properties, including going door-to-door on multiple occasions, making phone calls, participating in public meetings, tabling at a local farmer's market and library, and speaking with local sources of news and information. We have also reached out via social media. Several members of the community have assisted with these efforts, which EPA greatly appreciates.

EPA estimates that we have communicated in some direct way (i.e., through mailings, door-to-door, meetings, calls, in-person) with occupants and/or owners of approximately 700 individual properties in or near the preliminary study area since the site was listed in 2022. Unfortunately, we have gained access to only 40 individual units in 35 structures through these efforts to date, plus all 11 buildings of Cooper Park Houses and P.S. 110. That said, the vast majority of properties that we have not yet gained access to have not denied access – they have simply not granted it yet. The number of outright denials, which might be counted as people explicitly saying or writing they would not provide access, as well as people that have hung up the phone on us, is relatively small; only approximately 25 individuals have fallen into the outright denial category thus far.

Comment 4: The CAG submitted several comments regarding the Remedial Action Levels (RALs) included in this decision document. In particular, the CAG asked that different (lower) RALs be considered for use at the site.

EPA Response 4: The individual comments regarding RALs submitted by the CAG are summarized and responded to below. In general, EPA wants to clarify that the RALs are only one line of evidence that are being used in determining if mitigation is needed at any individual property. As is stated in the ROD, the RALs represent current EPA Vapor Intrusion Screening Levels (VISLs) set at a target Hazard Quotient (HQ) of 1, which falls midway between EPA's cancer risk range of $1x10^{-6}$ to $1x10^{-4}$. They are developed using health-protective assumptions and toxicity information for each individual chemical that is intended to be protective of all individuals, including sensitive subgroups such as pregnant women, children and the elderly, so that they may be exposed without adverse effects over a lifetime or part of a lifetime, incorporating an adequate margin of safety. The VISLs, and thus the RALs, are only screening values. They will be considered with other Site-specific lines of evidence such as subsurface geology and hydrogeology, subsurface contamination levels, the structural characteristics of each building, and proximity to other impacted structures in determining whether there is a need for remedial action. The need for remedial action will also be determined in consultation with NYSDEC and the NYSDOH, including consideration of NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*.

The RALs will not be used as a discrete line to determine if mitigation is needed or not; rather, each individual property will be evaluated on a case-by-case basis to determine if mitigation is warranted based on current and reasonably anticipated future use. EPA will err on the side of protectiveness when making these determinations and the determination to mitigate at any individual property could be made even if there are no RAL exceedances if the other lines of evidence, such as those described in the previous paragraph, suggest it would be appropriate, in consultation with NYSDEC, NYSDOH and EPA's risk assessor.

Comment 5: The CAG asks that applicable or relevant and appropriate requirements (ARARs) be taken into consideration when establishing RALs for the site. They note that Section 121(d) of

the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires that on-site remedial actions attain or waive federal environmental ARARs, or more stringent state environmental ARARs, upon completion of the remedial action, and point out that NYSDEC's action levels are more stringent than EPA's RALs. The CAG also makes the point that Region 9 uses lower values than Region 2 for RALs.

> **EPA Response 5**: In October 2006, NYSDOH published "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (https://www.health.ny.gov/environmental/indoors/vapor_intrusion/docs/2006_guidance.pdf). The preface to this document, which has been updated over the years, most recently in February 2024, states that it has been prepared by NYSDOH in consultation with NYSDEC and that is intended as "general guidance for parties evaluating soil vapor intrusion in the State of New York." The guidance goes on to state directly that it is not "a regulation, rule or requirement." As such, this document would not be considered an ARAR for the site. Further, EPA Region 9 guidelines would not be considered ARARs for EPA Region 2. However, the guidance documents referred to in the comment are to be considered (TBC) in the Superfund remedy selection process. As such, EPA will consider these values in remedial decision making along with the multiple lines of evidence discussed above.

Comment 6: The CAG stated that the residential RAL for TCE should be set to 2 ug/m^3 or below based on EPA Region 9 recommendations found in this document: https://archive.epa.gov/region9/superfund/web/pdf/r9-tce-interim-action-levels-response-recs-memo-2014.pdf and the NYSDOH recommendation that "TCE concentrations in the air not exceed 2 ug/m^3.

> **EPA Response 6**: The EPA Region 9 memo that is referenced by the CAG is an archived document from 2014 and does not include the most up to date methodology/exposure parameters for calculating VISLs, which are typically updated twice a year by EPA. Current VISLs can be found here: https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-level-calculator
>
> Region 2's current residential VISL for TCE is 2.1 ug/m^3, which is only slightly higher than the Region 9 number and the NYSDOH numbers referenced by the CAG, and is consistent with EPA's current Vapor Intrusion guidelines. Further, as is explained in EPA's response to Comment 4, above, the decision of whether to mitigate any particular property will be made based on multiple lines of evidence and in consultation with NYSDEC, NYSDOH and EPA's risk assessor.

Comment 7: The CAG thinks the commercial/industrial RAL should be more stringent for both TCE and PCE. The commercial/industrial RALs in the Proposed Plan are based on an 8-hour workday. Instead, they recommend that a 10-hour workday be assumed, particularly because of the number of people who both live and work in the neighborhood, and the frequency with which

people work greater than 8-hour workdays. In addition, the CAG notes that assuming a 10-hour workday would bring the RAL for TCE closer to the Region 9 recommendation referenced in Comment 6, above.

EPA Response 7: EPA's commercial RALs are based on a typical workday and are considered protective for most workers including sensitive subpopulations, such as pregnant women and the elderly. Response #20 discusses in more detail the conservative exposure parameters used to calculate commercial/industrial RALs. As stated in the proposed plan and ROD, the commercial/industrial RALs assume an eight-hour workday, which is protective of most non-residential settings and can be adjusted as needed to account for property-specific conditions. If the Region were to become aware of a situation where 10 or 12-hour workdays were the norm, the RAL could be adjusted to account for that. A RAL for a 10-hr workday would be 7.0 ug/m^3 for TCE and 140 ug/m^3 for PCE. Assuming a 12-hr workday, the RALs would be 5.8 ug/m^3 and 120 ug/m^3 for TCE and PCE, respectively. The indoor air RALs for both TCE and PCE based on an 8hr, 10hr and 12hr days are displayed in the table below. The Region understands and agrees that many workers spend more than 8 hours a day at their place of business and, in addition, that many people both live and work in the neighborhood, often in the same space (i.e., they work from home), in which case a residential RAL might be more appropriate. Property-specific determinations will be made on a property-specific basis based on multiple lines of evidence. As is stated in the ROD, "whether to apply the residential RAL or Commercial/Industrial RAL will also be determined on a case-by-case basis, in consultation with NYSDEC and NYSDOH. In general, EPA understands that many properties that are zoned for non-residential use may be used, either regularly or from time-to-time, in what would be more consistent with residential exposure assumptions. The residential RALs may be used at any property, residential or non-residential, if there is reason to believe the commercial/industrial RALs are not sufficiently conservative, either under current or reasonably anticipated future use scenarios." These decisions will also be made in consultation with EPA's risk assessor.

Contaminant of Concern	Commercial/Industrial Remedial Action Level, Indoor Air (ug/m^3)		
	8hr	10hr	12hr
TCE	8.8	7	5.8
PCE	180	140	120

Comment 8: The CAG thinks the residential RAL should be more stringent for PCE and notes that it seems to correspond not to a one-in-a-million cancer risk, but instead are pegged to non-cancer risk. The CAG expressed that the community deserves to be granted the utmost protection and they are concerned that the EPA allows a cancer risk range of $1x10^{-4}$ and $1x10^{-6}$, but the

RALs do not correspond to the most stringent standard. The CAG requests that the RAL for PCE be set to the NYSDOH value of 30 ug/m^3 or less.

> **EPA Response 8**: EPA's current residential VISL based on a 10^{-6} cancer risk for PCE is 42 ug/m^3, which is consistent with EPA's current Vapor Intrusion guidelines and based on the most up-to-date methodology/exposure parameters for calculating VISLs. As stated in the *Role of the Baseline Risk Assessment in Superfund Remedy Selection* (https://www.epa.gov/sites/default/files/2015-11/documents/baseline.pdf):
>
> "Generally, where the baseline risk assessment indicates that a cumulative site risk to an individual using reasonable maximum exposure assumptions for either current or future land use exceeds the 10^{-4} lifetime excess cancer risk end of the risk range, action under CERCLA is generally warranted at the site. For sites where the cumulative site risk to an individual based on reasonable maximum exposure for both current and future land use is less than 10^{-4}, action generally is not warranted, but may be warranted if a chemical specific standard that defines acceptable risk is violated or unless there are noncarcinogenic effects or an adverse environmental impact that warrants action. A risk manager may also decide that a lower level of risk to human health is unacceptable and that remedial action is warranted where, for example, there are uncertainties in the risk assessment results. Records of Decision for remedial actions taken at sites posing risks within the 10^{-4} to 10^{-6} risk range must explain why remedial why remedial action is warranted."
>
> The noncancer hazard falls within the risk range established in the National Contingency Plan (NCP) for taking action. As such, it serves as a useful benchmark for determining an action is necessary; however, as is explained in EPA's response to Comment 4, above, the decision of whether to mitigate any particular property will be made based on multiple lines of evidence and in consultation with NYSDEC, NYSDOH and EPA's team, including the risk assessor.

Comment 9: At the May 30, 2024, presentation by the EPA, results of some of the well sampling were presented. A select list of contaminants found in the groundwater was presented, many of which are known to be harmful to human health. While the CAG applauds the investigation of PCE and TCE in the area, given the profusion of other harmful contaminants, the CAG is concerned that other contaminants that may negatively affect our public health are not being properly considered. When the EPA does indoor air sampling, does it test for other contaminants? If so, which ones? If levels of these contaminants are found at harmful concentrations, what is done? The CAG requests that the EPA take full advantage any time they have access to a property and ensure the inhabitants are protected not just from PCE and TCE, but also from other potentially harmful compounds, especially those that have been found to be present in the groundwater sampling.

> **EPA Response 9**: When EPA conducts vapor intrusion sampling in residential and non-residential buildings, EPA analyzes the samples collected for multiple volatile organic compounds (VOCs). The contaminant list can vary depending on which laboratory is selected to conduct the analysis. However, there are typically 50 to 55 VOCs that are analyzed for during each event. All of these compounds are evaluated to see if they are related to the Site and compared to EPA's vapor intrusion screening levels in the same fashion as TCE and PCE.

The full list of contaminants is available at the following link: https://www3.epa.gov/ttn/amtic/files/ambient/airtox/to-15r.pdf.

EPA understands the community would like EPA to evaluate contaminants other than TCE and PCE, but it is important to note this is an interim remedial decision based on the information currently available for the site, which shows TCE and PCE as the primary contaminants in groundwater contributing to vapor intrusion risk. As is stated in the ROD, if additional contaminants of concern are identified during the ongoing OU1 RI/FS that may adversely affect indoor air, EPA's VISLs and NYSDOH guidance will be reviewed and, if warranted, appropriate mitigative actions will be taken.

Comment 10: The CAG thinks it is vital that ARARs be applied for this decision even though they understand they are not required since this is an interim decision. They go on to explain that EPA has stated numerous times that the reason that it is addressing vapor intrusion now is because it is an immediate health risk, but, as of yet, there is no timeline or plan for an underlying cleanup or removal action. As such, it is unknown for how long the community will exist with only this proposed plan to protect its health. Because of all these unknowns and the EPA's own indications that the health risks are immediate, the CAG believes that the standards of ARARs should apply. Additionally, the CAG went on to note that the community has been very supportive of and even pushed for the site to move from a state-level site to the National Priorities List, but are concerned now if this move means less protective health standards than were used under the state cleanup will be applied, stating that this goes against all the reasons that the site was elevated to a national status.

EPA Response 10: The proposed plan is an interim remedial action that is intended to reduce site risks early in the Superfund site remediation process. EPA's preferred alternative includes engineering measures and vapor intrusion mitigation systems that do not treat the subsurface vapor source, but rather serve to prevent contaminated soil vapors from entering and/or accumulating in structures at concentrations that represent a threat, or a potential threat, to human health. Because the remedy for OU2 is considered an interim remedy, identification of ARARs is not required at this time. That said, ARARs and TBCs will be considered in decision making. Regarding the CAG's comment on the health standards, please refer to EPA responses 4 through 8. To summarize, the RALs are just one line of evidence that will be considered in concert with other factors including site-specific, and property-specific, lines of evidence such as subsurface geology and hydrogeology, subsurface contamination levels, the structural characteristics of each building, and proximity to other impacted structures in determining whether there is a need for mitigation. The need mitigation will also be determined in consultation with NYSDEC and the NYSDOH, including consideration of NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, and the EPA risk assessor will be consulted on each individual decision.

A timeline for the OU1 RI/FS has not yet been established. However, vapor intrusion and groundwater investigations are currently in progress. Given the scope of the investigation, EPA expects that the OU1 RI/FS process will take a number of years to complete. EPA acknowledges community's frustration with the process, however, EPA's goal is to complete the OU1 RI/FS as thoroughly and quickly as possible on two parallel

tracks, as described in the response to Comment 1. Regarding the CAG's comment on the health standards, please refer to EPA responses 4 through 8. To summarize, the RALs are just one line of evidence that will be considered in concert with other factors including site-specific, and property-specific, lines of evidence such as subsurface geology and hydrogeology, subsurface contamination levels, the structural characteristics of each building, and proximity to other impacted structures in determining whether there is a need for mitigation. The need mitigation will also be determined in consultation with NYSDEC and the NYSDOH, including consideration of NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, and the EPA risk assessor will be consulted on each individual decision.

Comment 11: The CAG believes that soil gas vapor testing should be implemented in addition to soil vapor intrusion, since it can be done in the public right of way and would provide some data on how likely a vapor intrusion risk is at a particular property, even if access to that property is denied. This would provide additional information to help the EPA determine whether it is vital to consider using additional measures to gain access to the property for testing. Depending on the underlying properties of soil in different parts of the neighborhood, the well sampling might not be a good proxy for soil gas vapor and potential vapor intrusion. Without a larger data set of results from indoor air testing, The CAG doesn't feel confident that a plan based on such a small sample of properties is the best for the community. For example, soil gas vapor testing could be used at residences where tenants have requested testing, but the property owner has not granted access, should the EPA be unwilling to use its administrative authority to force access.

EPA Response 11: NYSDEC has collected nearly 1,000 soil gas samples and has made that data available to EPA for evaluation, which EPA considers a substantial dataset. EPA is in the process of evaluating this soil gas data and will collect additional samples if needed. Collecting soil vapor samples from outside of buildings does not provide a 1:1 correlation to soil vapor concentrations beneath an adjacent building. As indicated in EPA's *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* (https://www.epa.gov/sites/default/files/2015-09/documents/oswer-vapor-intrusion-technical-guide-final.pdf), "individual exterior soil gas samples cannot generally be expected to accurately estimate sub-slab or indoor air concentrations." Therefore, EPA's priority thus far has been to conduct sub-slab and indoor air sampling to address any immediate health concerns and groundwater sampling to determine the nature and extent of the groundwater plume.

Comment 12: The CAG requests that the EPA be willing to test apartments on upper floors in elevator buildings and buildings with other vertical conduits. It has been found that elevators can increase the movement of vapors throughout a building. The EPA has stated on numerous occasions that testing every building within the investigation area would be an aspirational goal. Since there is evidence that upper-level apartments in elevator buildings may have greater risk of indoor air issues due to vapor intrusion, the CAG sees no reason why the EPA should turn away willing participants of this type

EPA Response 12: The soil, soil gas, and groundwater at the Site are contaminated with CVOCs. CVOCs are a subset of volatile organic compounds (VOCs), which are substances that typically evaporate at room temperature. They can affect the indoor air of

properties located in close proximity to contaminated areas by entering the indoor air of structures through small cracks, pipes or other points of entry. Based on how soil vapors usually enter a building , indoor air samples collected from the lowest level floor and basement typically exhibit the highest concentrations of vapors. If EPA were to find that the concentration of contaminants on the first floor are unusually elevated, EPA could elect to collect additional samples from higher floors to ensure that these locations are not presenting an unacceptable risk to those living on those floors. EPA is aware that in some situations that elevators and elevator shafts can provide preferential pathways for vapors and will consider testing of upper floors in buildings with elevators.

Comment 13: The CAG believes the EPA should do vapor intrusion sampling outside of the winter heating season. The EPA should identify test sites where indoor air is sampled during the winter heating season and at other times as well, especially during times of heavy rainfall to assess whether winter heating season testing is indeed the best method for determining risk of vapor intrusion. Seasonal variability of factors such as weather and rainfall can affect vapor intrusion. From a June 2015 document of the EPA's Office of Solid Waste and Emergency Response, "Because fluctuations in water table elevation can lead to elevated vapor concentrations in the vadose zone, EPA also recommends that "near source" soil gas sampling (and possibly a soil gas survey) be considered in different seasons that coincide with groundwater fluctuations."

EPA Response 13: Indoor air samples are typically collected during the winter heating season because soil vapor intrusion is more likely to occur when a building's heating system is in operation, doors and windows are closed and buildings are generally less ventilated. When buildings are closed up and heated, a difference in temperature between the inside and outdoor air induces a stack effect, pulling warm air from lower to higher floors. Vapor intrusion can be enhanced as the air is replaced in the lower parts of the building. In New York State, heating systems are generally expected to be operating routinely from November 15th to March 31st. However, these dates are not absolute. EPA can collect vapor intrusion samples outside of the winter heating season if EPA determines the circumstances warrant testing. However, these samples could not be used to rule out exposure. Samples during the heating season would still be necessary to verify indoor concentrations under a worst-case scenario.

Comment 14: The CAG believes that given that TCE exposure during the first few weeks of pregnancy increases the risk of heart damage to a developing fetus, testing should be done in homes at any season if there is a person of childbearing age living in the home. The risk is greatest between weeks 2 and 8 of pregnancy, which is often before a person may even know that they are pregnant. Thus, to reduce the risk of birth defects, it would make sense to ensure safe living and working conditions for any person who may become pregnant.

EPA Response 14: EPA evaluates each situation on a case-by-case basis and would consider vapor intrusion sampling if the circumstances warrant testing. Additionally, Region 2 has a long-standing process for reviewing vapor intrusion data so that expeditious decisions regarding mitigation can be made, especially in situations where TCE is a contaminate of concern.

Comment 15: The CAG has questions about how long the results of vapor intrusion testing are valid. Given that the condition of the foundation, for example, can change with construction

projects, earthquakes, etc, we are concerned that while initial testing may deem a location "safe," the status may change in the future. The CAG would like to see a schedule under which properties can be retested or a list of changes that would make a property eligible to be retested. The CAG has seen it suggested that if soil gas vapor tests above a certain threshold, perhaps mitigation should be suggested in locations even if the indoor air tests "safe" in the event of future changes to the building.

> **EPA Response 15**: EPA does not have a schedule under which properties would be retested. Each request that is submitted to EPA for testing is evaluated on a case-by-case basis, including those requests made when a property has already been tested. Situations that may lead EPA to retest a property can include, but are not limited to, the concentrations of compounds detected during a previous sampling event, new vapor intrusion testing data at neighboring and adjacent properties, significant changes to a building's construction (i.e., significant remodeling) and/or foundation (i.e., new cracks), and changes in EPA's understanding of groundwater flow direction and/or groundwater contaminant concentrations. Also, keep in mind that EPA's long-term goal is to address the source and/or sources of contamination to reduce the likelihood of vapor intrusion concerns at the site. As mentioned in EPA Response 10, EPA looks at multiple lines of evidence when determining whether there is a need for mitigation, including subsurface geology and hydrogeology, subsurface contamination levels, the structural characteristics of each building, and proximity to other impacted structures. For example, if EPA finds that contamination levels in the sub-slab significantly exceed the RALs, but first floor contamination levels do not exceed the RALs, then EPA may consider whether mitigation is required.

Comment 16: The CAG is concerned that not all available information is being collected and analyzed. In particular, the EPA should use all data and wells from the National Grid site to determine the extent of the plume given that groundwater analysis presented at the May 30, 2024, CAG meeting showed that contamination exists right up against the current boundary of the plume and the National Grid property. The CAG also believes that there should be better coordination with the Newtown Creek site in order to gain further information about how the two sites affect one another.

> **EPA Response 16**: EPA is actively coordinating with property owners in the area to gain access to sample existing wells and/or to install new wells, including National Grid. EPA anticipates sampling several of the existing wells on their property in the upcoming fall 2024 groundwater sampling effort. This is a dynamic process and as more data is collected, it may become apparent that additional sampling locations should be tested. EPA will continue to keep the CAG informed as more information is developed. EPA's Meeker Avenue Plume Site project managers work with the EPA's Newtown Creek project managers to eliminate any duplication of effort, ensure coordination between both teams, and share data across both sites. EPA also regularly meets with and coordinates with NYSDEC and NYSDOH.

A comment letter (via electronic format) was submitted by Brooklyn Community Board No. 1.

Comment 17: Brooklyn Community Board No.1 requested that EPA adhere to the more stringent NYSDEC vapor intrusion chemical contamination thresholds that 1) are lower for TCE and PCE than those used by EPA and 2) require residential and commercial spaces utilize the same RALS instead of using higher levels for commercial spaces.

Their letter also voiced that this project is of the utmost concern, not only due the breadth, severity and complexity of the Meeker Avenue Plume contamination, but because this Superfund site resides solely within the confines of Brooklyn Community District #1, a district that has a long history of exposure to toxic sites. The letter expressed concern with the protectiveness of the RALs that EPA is using and asked that EPA not seek waivers to override the State guidelines. The letter also explained that it is both normal and pervasive for workers in commercial work environments to spend more time (very often more than 10 hours) at their workplace than at their home, and reiterated that it is imperative that residents and workers in the district receive the same level of protection that the state would provide.

> **EPA Response 17**: EPA appreciates the long history of contamination that is present in the neighborhoods represented by Community Board No. 1 and understands the distress this has caused to so many in the area. Very similar concerns regarding the appropriate RALs to use and the need to follow State regulations were also raised by the Meeker Avenue Plume CAG. Please see EPA Responses 4 through 10 above.

A member of the community submitted a comment to EPA via e-mail, which is provided below, along with EPA's response.

Comment 18: The community member is concerned about access to residential properties for vapor intrusion sampling. They think that having to get landlord permission to get their apartment tested makes this testing program useless. As someone with health problems living on the Meeker Superfund site who wanted to get our building tested, they were unable to do so because they couldn't get landlord permission. Their building is an old building with many visible cracks in the facade and ground floor where vapors could easily get through, and there is also a basement unit. The community member feels that in order for this program to work, a court order needs to be put in place immediately requiring testing, because when left with a choice, the overwhelming majority of landlords will not choose to get the space tested. They feel it is completely unrealistic to think that landlords will comply voluntarily. They voiced that delays continue to jeopardize the health of the community who actually lives in the superfund site (the renters).

> **EPA Response 18:** Consent is the preferred method for EPA to obtain property access for various CERCLA activities including vapor intrusion sampling. However, EPA has the ability to use other enforcement options, including administrative or judicial orders or warrants to compel access when consent is not forthcoming or otherwise is denied and access is necessary. As such, while EPA always seeks access for the purposes of sampling or mitigation through consent from property owners, a decision by EPA that access is necessary leading to the use of its access authorities will depend on the facts of

the situation, including the levels of contamination and exposure scenarios. Please also see EPA's response to Comment 2 above.

Part 2: Verbal Comments

EPA received a number of verbal comments from community members during the public meeting held on April 16, 2024. The comments are provided below, along with EPA's responses.

Comment 19: A community member asked EPA to identify and describe briefly the sources of pollution?

EPA Response 19: EPA is still in the process of identifying source areas for the site as part of the ongoing OU1 RI/FS. Prior to the site being added to the Superfund list, NYSDEC had already identified at least six likely source areas and another ten to twenty additional probable source areas. The uses of these properties vary and will be explored further during the RI/FS process, but at least one was a used for dry cleaning and another was a drum reconditioner. EPA is investigating all of these areas and others as part of the OU1 RI/FS.

To expand upon information provided at the meeting, the properties already designated by NYSDEC as likely source areas include:

- Former Spic and Span Cleaners and Dyers, Inc. (NYSDEC No. 224129)
- Former Klink Cosmo Cleaners (NYSDEC No. 224130)
- Former Acme Steel / Metal Works (NYSDEC No. 224131)
- Former Acme Steel / Brass Foundry (NYSDEC No. 224132)
- Former Lombardy Street Lacquer and Soap (NYSDEC No. ID No. 224182)
- Former Goodman Bros. Steel Drum Co. Inc (NYSDEC No. 224211)
- 291 Richardson Street Site (NYSDEC No. C224292)

Comment 20: A community member, who also identified as a resident and a member of Evergreen, asked EPA to explain why the RALs are different between residential and commercial properties and whether it has to do with how much time people spend in one place versus the other. They also asked whether the RALs offer the same level of protection and if more TCE or PCE intrusion is allowed in a space that's commercial because people might spend less time there.

EPA Response 20: The primary difference between EPA's residential and commercial RAL calculations is the exposure time per day (residential at 24 hours per day; commercial at 8 hours per day), the number of days exposed per year (residential at 350 days per year; commercial at 250 days per year) and the number of years exposed (residential at 26 years; commercial at 25 years).

To expand upon what was said at the meeting, in order for there to be risk, there needs to be exposure and the longer the exposure, the higher the risk. In general, people spend less time at their job than they do at home. Therefore, just based on the math, somewhat higher concentrations for non-residential properties would result in similar risk levels for

somewhat lower concentrations at residential properties. However, as is noted in EPA Response 7, the determination of the most appropriate RAL to use for any particular property will be determined on a case-by-case basis. The residential RALs may be used at any property, residential or non-residential, if there is reason to believe the commercial/industrial RALs are not sufficiently conservative, either under current or reasonably anticipated future use scenarios, and these decisions will be made in consultation with NYSDEC, NYSDOH and EPA's risk assessor.

	Receptor Population			
	Resident		**Commercial/Industrial Worker**	
Exposure Parameter	Value	Source/Rationale	Value	Source/Rationale
Exposure Time	24 hours/day	whole day	8 hours/day	typical workday; may be adjusted based on site-specific considerations
Exposure Duration	26 years	EPA, 2011; 90th percentile for current residence time	25 years	EPA, 1991; 95th percentile; Bureau of Labor Statistics, 1990
Exposure Frequency	350 days/year	EPA, 1991; 365 days/year minus 15 days/year spent away from home	250 days/year	EPA, 1991; assumes 5 days/week for 50 weeks/year (assumes 2 weeks of vacation)

Sources:
EPA, 1991. Human health evaluation manual, supplemental guidance: Standard default exposure factors. OSWER Directive 9285.6-03

EPA, 2011. Exposure Factors Handbook: 2011 Edition. EPA/600/R-090/052F, September 2011

Comment 21: A community member asked why the Proposed Plan assumes 100 buildings will require mitigation.

EPA Response 21: In order to develop a cost estimate for the mitigation measures, EPA used best professional judgement to develop a reasonable estimate of how many properties may require mitigation. The estimate was based on the number of properties within the Study Area, as well as the number of properties that have required mitigation thus far. That said, if more properties require mitigation, they will still be addressed. One of the assumptions of Superfund decision documents is that the cost estimates used to support RODs are expected to be accurate within a range of +50 to -30 percent. Further, even if we do end up going outside of this range (i.e., if we need to mitigate more than about 150 properties or fewer than about 70) we can modify the decision document so that we can still complete the work.

Comment 22: A community member, who also identified as the chair of the Environmental Protection Committee at Brooklyn Community Board No. 1, asked if EPA could look at the proximity of a property to other properties that require mitigation and/or to known areas of elevated concentrations in the soil and/or groundwater, to determine where to focus future vapor intrusion sampling. The community member pointed out that this type of approach could be helpful to minimize adverse effects to property owners from testing.

> **EPA Response 22**: EPA will use the information it gathers from the ongoing groundwater investigation, additional investigations that will be conducted as part of the OU1 RI/FS, and the State's data, including the extensive network of soil gas wells they installed mostly in sidewalks to help focus ongoing vapor intrusion testing efforts within or adjacent to the Study Area.
>
> To supplement what was stated at the meeting, EPA's *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* recommends a buffer zone, or distance, of 100 feet (laterally or vertically) for identifying buildings that are close to a subsurface vapor source or an area with vapor intrusion concerns that may warrant indoor air sampling. However, this distance is not absolute for several reasons stated in the guidance document, assumes that significant surface covers are not present, and assumes that preferential vapor migration routes are absent. Regardless of the distance every property that EPA evaluates for vapor intrusion testing is reviewed on a case-by-case basis as discussed in the guidance document. EPA estimates that there are between 900 and 1,000 properties located within EPA's current study area.

Comment 23: The same community member asked EPA to clarify approximately how many residential properties are with the Study Area right now.

> **EPA Response 23**: EPA estimates that there are between 900 and 1,000 properties within the preliminary Study Area.

Comment 24: A community member, who also identified as a resident within the Study Area, asked if similar sites exist, in the city or elsewhere, with similar concerns, and if depressurization systems have been successfully deployed in these other situations. They also asked if there are other neighborhoods that have similar contaminants with similar concentrations.

> **EPA Response24**: Sub-slab depressurization is a proven mitigation technology that has been shown to be effective at this Site, as well as at similar sites in EPA Region 2 and throughout the country (for examples of similar decisions at other sites, see https://semspub.epa.gov/src/document/02/630395, which relates to the Facet Enterprises, Inc. site in EPA Region 2, and https://semspub.epa.gov/src/document/05/986651, which relates to the Keystone Corridor Groundwater Contamination site in EPA Region 5).
>
> NYSDEC has been working on this Site since 2007 and has used the same technology to effectively mitigate approximately 26 properties. A section supervisor at NYSDEC in attendance at the meeting confirmed there are many places within New York City and

New York State that have soil vapor plumes and that they have been mitigated using the same technology. They noted that it is a well-documented, standard approach.

Comment 25: A community member, who also identified as an individual that lives and works in the area, asked if the testing area has remained the same, expanded or contracted based on the testing EPA has completed thus far.

EPA Response 25: The preliminary Study Area remains the same at this time.

Comment 26: A resident asked if there is currently or will there be an oversight body that coordinates the various sites in the area, particularly as boundaries of sites may shift, and if so, who this oversight body would be?

EPA Response 26: The Newtown Creek and Meeker Avenue Plume sites are managed in the same section at EPA. EPA shares information between the sites and, for example, we recently coordinated groundwater sampling efforts at both sites. The other Federal Superfund sites in New York City, including the Wolff-Alport and Gowanus Canal sites, are also managed in the same office and we coordinate on those sites as well. A section supervisor at NYSDEC in attendance at the meeting also confirmed that EPA and NYSDEC coordinate regularly, particularly on the Newtown Creek and Meeker Avenue Plume sites.

To expand upon what was said at the meeting, NYSDEC also oversees several non-Federal sites in the area and coordinates regularly with NYSDEC and NYSDOH as well.

Comment 27: A resident asked if there are any conflicts of interest between the responsible parties and the cleanup efforts, especially since they think NYS is a responsible party.

EPA Response 27: EPA has not yet named any responsible parties for the Meeker Avenue Plume site. This is a process we are working on and can take some time. The State of New York is considered our Partner Agency and is not a responsible party for this site. They asked EPA to take the lead on this site after investigating it for a number of years. As the responsible party search continues, we may have to figure out how to address any potential conflicts, particularly if common responsible parties are found between multiple sites. EPA has a longstanding policy to pursue "enforcement first" throughout the Superfund cleanup process. This policy promotes the "polluter pays" principle and helps to conserve the resources of the Hazardous Substance Trust Fund for the cleanup of those sites where viable responsible parties do not exist.

Comment 28: A member of the Newtown Creek Alliance asked EPA a series of questions relating to the RALs. The questions/comments can be summarized as:

a. How did EPA arrive at the RALs that are included in the Proposed Plan?
b. While the residential RALs seem to be based on the conservative assumption that people are in their homes 24 hours a day, 7 days a week, the commercial RALs do not seem conservative enough. The commenter pointed out that he knows lots of people that work more than 40 hours per week and that, therefore, having a RAL that is four times less

protective for non-residential workers is unacceptable, especially given the large number of commercial/industrial properties in the area.

EPA Response 28: EPA noted that the EPA risk assessor was not able to attend the meeting so, therefore, detailed, full responses would be provided in the responsiveness summary. In general, however, EPA pointed out that each property is looked at holistically and decisions are made on how best to proceed on a case-by-case basis based on multiple lines of evidence. The RALs are not bright lines that EPA will use to determine if mitigation and/or additional monitoring is needed.

A representative from NYSDOH that was present at the meeting confirmed that while they do not necessarily draw a distinction between residential and non-residential uses, EPA, NYSDEC and NYSDOH will coordinate regularly on making property-by-property determinations. The section supervisor from NYSDEC also commented that the decision document memorializing the cleanup plan for this action will be written with sufficient flexibility to allow for case-by-case decisions to be made.

Please see EPA Responses 4 through 10, above, for further detail in response to these questions.

Comment 29: A meeting attendee asked a series of questions related to access, testing rate and outreach. He specifically wanted to know how many properties EPA received access to, how many owners are on the lower floors (versus tenants), and if overall EPA is happy with the amount of access we have received. He noted that he spent a day helping the outreach team and saw how difficult it is to get access to properties with absentee landlords. He also asked specifically about Cooper Park Houses and the testing there.

EPA Response 29: EPA explained that there are between 900 and 1,000 properties within the preliminary Study Area. Prior to the site being designated as a Superfund site in March 2022, NYSDEC had sampled more than 160 of those properties (over a 15 year period from 2007 and 2022). As of December 2023, EPA has conducted vapor intrusion sampling and fully evaluated the results at 18 residential structures, 11 public housing buildings (Cooper Park Houses), and one public school. Out of these, EPA has determined that vapor mitigation is not needed at this time at any of the properties it has sampled, and that further monitoring should be conducted at three of the residential properties. In addition, in February and March 2024, EPA sampled 18 properties and is in the process of evaluating the results. EPA agrees that outreach has been a struggle and it is something we are working very hard on. The representative from NYSDOH concurred obtaining access was their biggest hurdle to sampling as well. He noted that they sent out close to 1,000 letters requesting access to test in the 2021 to 2022 heating season. Out of that batch of letters, they received access to just 60 properties.

All that said, the outreach and access efforts are ongoing and will continue for at least the next several years. The decision described in the ROD will give EPA the ability to mitigate vapor intrusion issues as we discover them prior to fully understanding the nature and extent of contamination in groundwater. We are still working to access as many properties as we can to conduct vapor intrusion sampling. To supplement what was said at the meeting, EPA's outreach has included meetings and telephone calls with

individual tenants and property owners, door-to-door efforts, tabling at multiple community events, written correspondence (direct mailing) and social media outreach in four languages, regular updates to the Site's EPA website, in-person community and public meetings, meetings and information sharing with elected officials, radio interviews, targeted meetings at the Cooper Park Houses and with PS-110 staff and the PTA, media interviews (paper, on-line and television outlets), and interviews with local podcasts. With that said, EPA's goal is to improve on our outreach efforts and correspond with as many people as possible and this will be the focus of the updated Community Involvement Plan. Please refer to EPA Response #1 for additional detail.

Regarding Cooper Park Houses, EPA was able to test all 11 of the buildings when we did the sampling in 2023. There are no residences on the ground floor of any of the buildings, but there are offices, lunch areas, community rooms, etc. Each building is unique. We were able to test these common spaces. We also tested sub-slab soil gas under the buildings and outdoor air near the buildings. The results showed that none of the Cooper Park Houses buildings require mitigation.

Comment 30: A meeting attendee asked if denying access would put a landlord at legal risk of being sued by tenants in the future if, for example, the kids grow up and develop an illness.

EPA Response 30: EPA stated that we cannot provide legal advice to members of the public. EPA went on to clarify that we have the authority under Superfund law to access properties for sampling and response actions. While voluntary consent is our preference, we are able to require access through administrative or judicial means.

Comment 31: A community member, who identified as an individual that lives and works in the community, asked if EPA would go back and retest properties.

EPA Response 31: EPA evaluates each property on a case-by-case basis, including those properties that have already been tested. EPA has reviewed the properties tested by the state and has not seen the need to revisit any of those yet. If someone contacts us and lets us know of a changed situation, such as a structural change to the building or a change in usage, then we would evaluate if re-testing is needed. In addition, based on the results from the initial round of sampling, EPA may determine it makes sense to re-test a structure. For example, if property-specific review of the multiple lines of evidence that are gathered are inconclusive, re-testing may be warranted. And to expand upon what was said at the meeting, other situations that may lead EPA to retest a property can include, but are not limited to, new vapor intrusion testing data at neighboring and adjacent properties and changes in EPA's understanding of groundwater flow direction and/or groundwater contaminant concentrations.

Comment 32: A community member and representative of North Brooklyn Neighbors asked if the commercial RALs account for the most vulnerable populations, such as pregnant women and people who are elderly, and noted that the makeup of the current workforce can change over time (i.e., people may become pregnant).

EPA Response 32: EPA reiterated that we look at each property individually and use multiple lines of evidence to determine whether mitigation is needed. To supplement what was said at the meeting, EPA's commercial RALs are considered protective for all workers including sensitive subpopulations, such as pregnant women and the elderly. Please refer to EPA Response 7 for more information.

Comment 33: The same resident asked how the venting for mitigation systems is designed so that nearby properties are not adversely affected.

EPA Response 33: EPA acknowledged the question and looked into this further after the meeting. EPA will follow the NYSDOH's guidance to the extent practicable. NYSDOH's guidance requires the exhaust or vent pipe to extend vertically through the building floors and to terminate at least 12 inches above the surface of the roof, in a location at least 10 feet away from any window or other opening into the conditioned spaces of the building that is less than two feet below the exhaust point, and 10 feet from any adjoining or adjacent buildings.

Comment 34: A community member, who also identified as a resident in the area, asked about a tenant/renters right to information regarding vapor intrusion sampling, including whether a tenant can find out if testing has been conducted and have access to the results.

EPA Response 34: EPA explained that all data will be shared with the property owner and the tenants of any units tested. From a larger perspective, we are also working to develop maps (called cluster maps) that will display how many properties have been tested in smaller subsets of the Study Area and the overall results (i.e., how many of the tested properties required mitigation versus not) without revealing any particular addresses or otherwise personally identifiable information. EPA is working to develop these maps in an effort to balance the community's desire for transparency with individual rights to privacy.

The representative from NYSDOH went on to explain that New York has tenant notification laws which require building owners to share any results that are above state guidelines with tenants, and the state encourages property owners to share the results with all building occupants and tenants.

To expand upon what was stated at the meeting, when EPA conducts vapor intrusion sampling at a property, EPA will provide the results to both the tenant whose unit was sampled and the landlord. If a common area is sampled, that data will be provided to any tenant that has access to that common area. A copy of the data and EPA's assessment will be provided to any / all other tenants in the building proactively if EPA determines that mitigation is required for the building based on indoor air testing data impacts from a public space inside of the building (i.e., common laundry room or basement). Alternatively, a tenant may ask the building owner for a copy of the vapor intrusion data.

Also note that all of the vapor intrusion data that EPA collects or generates will eventually be shared in the Remedial Investigation report that is developed for the site. However, the data will not be reported with any personally identifiable information

shared. The exact details of how the data will be reported in the report has not yet been determined.

Comment 35: A community member asked EPA to explain broadly what the cancer and non-cancer health risks are for TCE and PCE. A separate request was made that EPA explain the risks in easy-to-understand terms when a written response is provided.

EPA Response 35: TCE is classified by EPA as carcinogenic to humans by all routes of exposure and can cause effects to the central nervous system, kidneys, liver, immune system and to developing fetus. PCE is classified by EPA as likely to be carcinogenic to humans by all routes of exposure and can cause nervous system and ocular effects.

To expand upon what was said at the meeting, EPA quantifies risk at a Superfund Site by conducting an analysis of the potential adverse health effects caused by hazardous substance releases from the Site in the absence of any actions to control or mitigate these releases under current and anticipated future land use. A four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario:

- Hazard Identification – uses the analytical data collected to identify the contaminants of potential concern at the Site for each medium, with consideration of a number of factors explained below;
- Exposure Assessment - estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., ingesting contaminated well-water) by which humans are potentially exposed;
- Toxicity Assessment - determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and
- Risk Characterization - summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. The risk characterization also identifies contamination with concentrations which exceed acceptable levels, defined by the NCP as an excess lifetime cancer risk greater than 1×10^{-6} to 1×10^{-4} or a noncancer Hazard Index greater than 1; contaminants at these concentrations are considered chemicals of concern and are typically those that will require remediation at the Site. Also included in this section is a discussion of the uncertainties associated with these risks.

For more information on risk and how it's quantified, please see the "What is Risk and How is it Calculated" information box on page 6 of the proposed plan or the "Summary of Site Risks" section of the ROD.

Overall, in order for risk to occur, there needs to be exposure. So if there is contamination under the ground but the vapors are not entering a structure and it is not otherwise available for exposure, then there is no risk from that contamination. The NCP defines site-related cancer risks that exceed 1×10^{-4} (or one in ten thousand) as unacceptable. To

help visualize what a 1×10^{-4} risk means, consider a pool that is filled with ten thousand green marbles and a single red marble; the red marble would represent the one in a ten thousand excess cancer cases.

Comment 36: A member of the Newtown Creek Alliance asked what EPA is actually proposing here and whether any steps towards any real remediation of the contamination as opposed to just getting the vapors out of structures.

EPA Response 36: The action described in the Proposed Plan is a mitigative action to prevent exposure to site-related contamination in indoor air. It is an interim measure to protect people's health who are being impacted by the contamination while a long-term solution to addressing the sources is being developed. The site is being investigated on two parallel tracks, one related to the sources of the contamination and the other related to mitigation. This Record of Decision gives EPA the ability to take mitigative measures while the sources of the contamination are investigated and remedial alternatives are developed.

As of the time of the meeting, EPA had not yet identified any properties that required mitigation. It was noted that EPA's removal program could be used as a stop-gap measure, if needed, to conduct mitigative measures until a ROD is signed. Since the time of the meeting two properties were identified that require the installation of sub-slab mitigation systems, and EPA's removal program will be installing those early this fall.

Comment 37: Community members asked about timing, in particular the timeline is for the full OU1 RI/FS and why EPA estimated a 5-year time period for this action.

EPA Response 37: EPA does not yet have a final timeline for the full OU1 RI/FS process, but it will take a time to reach a decision and then implement the selected remedy. An initial round of groundwater sampling from existing wells was conducted in 2023 and the results of this will help to determine data gaps and where additional wells need to be installed. The RI/FS will proceed in a stepwise manner like this, and we will develop and continue to refine the overall schedule as we go.

The OU2 Proposed Plan and ROD state that sampling and mitigation will be conducted on an ongoing basis for a period of at least five years. A five-year time period was selected for budgetary purposes. However, this does not limit EPA from sampling and mitigating properties beyond the five-year timeframe.

Comment 38: A community member representing North Brooklyn Neighbors commented that they very much appreciate EPA saying that they look at things on an individual basis but asked that this be recognized in a more formal way, particularly for those that may not trust EPA completely.

EPA Response 38: EPA acknowledges the community's concern. To supplement what was said at the meeting, language has been added to the ROD stating this more clearly. Specifically, the ROD includes the following text:

- Whether to apply the residential RAL or Commercial/Industrial RAL will be determined on a case-by-case basis, in consultation with NYSDEC and NYSDOH. In general, EPA understands that many properties that are zoned for non-residential use

may be used, either regularly or from time-to-time, in what would be more consistent with residential exposure assumptions. The residential RALs may be used at any property, residential or non-residential, if there is any reason to believe the commercial/industrial RALs are not sufficiently conservative, either under current or reasonably anticipated future use scenarios.

- While stated in the Proposed Plan, this Record of Decision memorializes that RALs will be considered with other Site-specific lines of evidence such as subsurface geology and hydrogeology, the structural characteristics of each building, and proximity to other impacted structures in determining whether there is a need for remedial action. The need for remedial action will also be determined in consultation with NYSDEC and the NYSDOH, including consideration of NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*.

Comment 39: A community member asked whether EPA tests strictly in the winter months or is it possible to test a basement where there's not much air flow even during warmer weather?

EPA Response 39: EPA noted that testing can occur outside of the winter heating season but that the results are not definitive. If elevated concentrations are found, then there is likely an issue, but if elevated concentrations are not found, additional testing would still be needed in the winter. Please also refer to EPA Response 13.

Comment 40: A community member asked EPA if there are any limitations on the amount of testing that can be done during a given time period, particularly due to laboratory constraints.

EPA Response 40: Since vapor intrusion sampling is generally conducted during a limited time of year, laboratory capacity can be an issue. However, since the sampling for this site is being planned in advance, EPA is working with the laboratories to secure sufficient space ahead of time to minimize any potential delays.

Comment 41: A community member asked if cost plays a factor in our selection of RALs that differ from the State's RALs.

EPA Response 41: Cost did not play a factor in our selection of RALs for this site.

Comment 42: A community member asked EPA who will physically install the mitigation systems if they are required at a property. They asked if EPA does it directly, if EPA has a contractor, or can the property owner do it themselves under the guidance of the agency?

EPA Response 42: Any mitigation systems will be installed by a qualified contractor who is conducting the work under EPA oversight.

Comment 43: A community member commented that there were only two remedies looked at and asked EPA if there are other options that exist or technologies.

EPA Response 43: The use of a sub-slab depressurization system is a proven technology that has shown to be effective at mitigating vapor intrusion at both residential and commercial properties. The alternative includes additional mitigative measures, like the

sealing of cracks, which may be needed/appropriate. Other approaches would not be as effective and were not considered.

APPENDIX V

RESPONSIVENESS SUMMARY
Attachment A- Written Comments Submitted During Public Comment Period

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HON. JENNIFER GUTIERREZ
COUNCILMEMBER, 34th CD

SIMON WEISER
FIRST VICE-CHAIRMAN

DEL TEAGUE
SECOND VICE-CHAIRPERSON

GINA BARROS
THIRD VICE-CHAIRPERSON

DAVID HEIMLICH
FINANCIAL SECRETARY

SONIA IGLESIAS
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PHILIP A. CAPONEGRO
MEMBER-AT-LARGE

June 21, 2024

Rupika Ketu
Remedial Project Manager
US Environmental Protection Agency
290 Broadway, 18th Floor,
New York, NY 10007
ketu.rupika@epa.gov

Re: Comments regarding a proposed cleanup plan for potential indoor air contamination at the Meeker Avenue Plume Superfund Site

Dear Ms. Ketu,

At the regular meeting of Brooklyn Community Board No. 1 held the evening of June 18, 2024, the board members voted to support sending this letter.

The vote was as follows: 33" YES" 0" NO"; 0" Abstentions".

Please accept the following comments regarding a proposed cleanup plan for potential indoor air contamination at the Meeker Avenue Plume Superfund Site.

This project is of the utmost concern, not only due the breadth, severity and complexity of the Meeker Avenue Plume contamination, but because this Superfund site resides solely within the confines of Brooklyn Community District #1. This concern is bolstered by the long history of toxic sites that have existed and presently exist in this district which includes the Greenpoint Oil Spill, the Newtown Creek Superfund site, the Nuhart Factory Superfund site, the extensive fossil contamination needing remediation at Bushwick Inlet Park, several manufactured gas plant cleanups and the seemingly endless stream of brownfield cleanup sites here. Generations of

district residents are fed up and feel beaten down from weathering through this hazardous and damaging legacy.

Therefore, Brooklyn Community Board #1 takes issue with what we feel are weak parameters set in place related to the proposed remedy for potential contaminated indoor spaces. EPA Remedial Action Levels (RALs) being used for the 2 primary contaminants of concern, Trichloroethene (TCE) and Tetrachloroethene (PCE), are 1) lower than New York State Department of Environmental Conservation (NYSDEC) RALs for TCE and PCE and 2) are less stringent for commercial properties where NYSDEC uses one RAL for both residential and commercial properties, in creating the threshold in which the proposed remedy of installing a sub-slab depressurization system would be deployed.

We feel strongly that EPA must use the more stringent RALs that New York State provides and not seek waivers to override them. It is normal and pervasive for workers in commercial work environments to spend more time (very often more than 10 hours) at their workplace than at their home. It is imperative that residents and workers in our district receive the same level of protection.

Considering our district's epic environmental history, we urge the EPA to work with the deepest level of safety and remedy possible which lends itself to the use of the state's more stringent and further reaching contamination level limits.

Working for a Safer Williamsburg/ Greenpoint.

Sincerely,

Dealice Fuller

Dealice Fuller
Chairperson

Cc: Congresswoman Nydia Velazquez
Senator Kristen Gonzalez
Assemblymember Emily Gallagher
Borough President Antonio Reynoso
Council Member Lincoln Restler
Council Member Jennifer Gutierrez

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MEMBER-AT-LARGE

June 18, 2024

COMMITTEE REPORT
Environmental Protection Committee

TO: Chairperson Fuller and CB1 Board Members

FROM: Mr. Stephen Chesler, Committee Chair
Environmental Protection Committee

RE: Committee Report from June 6, 2024

The Committee met on the Evening of June 6, 2024, at 6:00 PM at McCarren Play Center, 776 Lorimer St, Brooklyn, NY 11222.

Members: Chesler, Chair; Bruzaitis; Costa; Horowitz; Peterson; Sabel; Vega; Hofmann*; Stewart* *(*) Non board committee member.*

Present: Chesler, Bruzaitis, Vega, Weiser (Ad Hoc), Hofmann*
Absent: Costa, Horowitz, Peterson, Sabel, Stewart*

5 members present. A quorum was achieved.

MEETING

1) NATIONAL GRID - NEWTOWN CREEK RESOURCE RECOVERY FACILITY RENEWABLE NATURAL GAS SYSTEM - Operational update provided by the National Grid team. - *On June 4th, 2024, National Grid informed the board that they would not be attending the meeting due to other obligations.* Per the board's request, they submitted a report regarding the functionality of the Renewable Natural Gas System (RNG). It was not received in time to discuss at the meeting.

Discussion:

Willis Elkins (Executive Director, Newtown Creek Alliance): National Grid is the midst of a rate case with the state. Included in their funding requirement is investment in the RNG system at the DEP Newtown Resource Recovery Facility (NCRRF). It also includes creating 4 new RNG systems at other facilities in the City. Rate payers would subsidize these. Newtown Creek Alliance is involved with the case. Environmental justice issues are at play here. Regular community meetings about these facilities should be a requirement vs just an annual report that is currently being provided. Air quality monitoring should be a requirement both for the system when it is offline *and* online. DEP provides a very general system status on their website. He suggested the City article covering this issue being included in the letter to our elected officials.

Steve Chesler: Is state and or city legislation required to force the DEP and NG to be more thoroughly accountable, transparent and compliant?
Christine Holowacz: This has been a 10-year project. They should be able to transform energy into electricity. Steve Chesler: Is it a lack of will? Money? Christine Holowacz: Probably a lack of technology. Many elements are not working. Steve Chesler: Should the board write to our elective officials about this? We are getting nowhere communicating with DEP and National Grid directly. Willis Elkins: Yes and attach The City article that covered this issue. Steve Chesler: …and the meeting letter. Laura Hofmann: Require transparency including a detailed list of items.

Laura Hofmann: What are our elected officials doing to increase standards for air quality? They seem to be biased towards developers instead of the community.

Also, attached is a status report from National Grid sent to the board 20 minutes prior to the meeting start.

Motion made by Steve Chesler - To recommend the board submit the attached letter as written, to our elected officals at the federal, state, and city levels, to demand the Department of Environmental Protection and National Grid provide regular details on the functionality and repair of the Newtown Creek Resource Recovery Facility and air quality analysis there, and if necessary initiate legislation to enforce the providing of this data to the public and Brookly Community Board #1.

Second: William Vega

The vote was as follows:

3 “YES”; 0 “NO”; 0 “ABS”

Consensus recommendation passes.

2) ENVIRONMENTAL PROTECTION AGENCY SEEKS PUBLIC COMMENT ON A PROPOSED CLEANUP PLAN FOR POTENTIAL INDOOR AIR CONTAMINATION AT THE MEEKER AVENUE PLUME SUPERFUND SITE - Public Comment Period extended through June 25, 2024. Review the proposal and recommend comments. *See the attached supporting summary documentation.*

Due to the complexity of the contamination, two years ago the Meeker Avenue Plume site was accepted to the Environmental Protection Agency's (EPA) National Priorities List after existing as a state superfund site for many years prior. Composed of approximately 900 properties, a mix of residential, commercial and industrial uses, the site's current extent is generally bordered by Bridgewater Street to the north, Monitor Street to the west, Frost Street, Withers Street and Lombardy Street to the south and Newtown Creek to the east. The two primary contaminants of concern are Trichloroethylene (TCE) and Tetrachloroethylene (PCE), both chlorinated volatile organic compounds. Both chemicals pose a significant threat to human health and are known as carcinogens and endocrine disruptors. It is estimated that prime sources of contamination were industrial dry-cleaning operations. As part of the project Remedial Investigation (RI) the EPA has been performing extensive testing through existing DEC monitoring wells and is considering creating additional ones. Based on this analysis they will be presenting a new site map with adjusted borders. Property testing has had a very low participation rate as property owners are not volunteering to opt in. Since residents and tenants are at great risk, the EPA is considering measures to gain access to these properties.

For indoor contamination the EPA has proposed a remedy for which they are seeking public comment until June 25, 2024. They are offering installation of sub-slab depressurization systems in the basements of site properties determined to exceed Remedial Action Levels, whereby air under building slabs is forced up and out through a ventilation system above affected buildings.

Discussion:

Steve Chesler reported that during the EPA's remedy proposal presentation on April 16, 2024, Willis Elkins noted that the EPA's Remedial Action Levels for TCE and PCE were less stringent than DEC's levels. And, that EPA allows for higher levels of these compounds on commercial sites versus residential sites. DEC does *not* have different thresholds set for residential and commercial sites. Christine Holowacz noted at that meeting and during our meeting, that the time many workers spend on the job at a commercial property is probably at least the same amount of time spent at home or more, often more than the 10-hour threshold that the EPA uses for commercial properties.

William Vega reported that at least 5 property owners he encountered were approached by EPA contractor workers who did not have identification to verify who they were. This poses a security risk.

Motion made by Steve Chesler - to recommend the board submit the attached comment to the Environmental Protection Agency regarding their proposed Meeker Avenue Plume Superfund remedy for interior spaces, requesting they adhere to the more stringent NYS Department of Environmental Conservation vapor intrusion chemical contamination thresholds that 1) require using their deeper New York Stater Remedial Actions Levels for TCE and PCE instead of the higher levels allowed and used by the EPA, and 2) require residential and commercial spaces utilize the same Remedial Action Levels instead of using higher levels for commercial spaces.

Second by William Vega.

The vote was as follows:

3 “YES”; 0 “NO”; 0 “ABS”

Consensus recommendation passes.

3) EXXONMOBIL GREENPOINT PETROLEUM REMEDIATION PROJECT (EMGPRP) SPDES PERMIT MODIFICATION - The Proposed Project will consolidate two existing groundwater treatment facilities associated with the EMGPRP into a new groundwater treatment facility to be constructed at 38 Varick Street, Brooklyn, NY 11222. Review the proposal and recommend comments. *Presentation file is attached.*

ExxonMobil and its environmental contractor Roux have been remediating the Greenpoint Oil Spill in eastern Greenpoint since 1978 when the spill was discovered leaking into Newtown Creek covering more than 50 acres of land along the creek. Since the settlement of a lawsuit brought on by a group of residents, Riverkeeper and the New York State Attorney General in 2010, this process has been expedited. Approximately 13.45 million gallons of an estimated 17 million gallons of oil have been removed.

Representatives from ExxonMobil and Roux presented and spoke about their State Pollution Discharge Elimination System (SPDES) modification proposal *(file attached)*. Madelyn Wilson, Environmental Project Manager, ExxonMobil; Kevin Thompson, Public & Government Affairs, ExxonMobil; Courtney Lind, Staff Assistant Engineer, Roux Associates; Justin Kennedy, Senior Engineer, Roux Associates.

Full remediation process involves 20 recovery wells for removing oil products, groundwater treatment and discharge, and soil vapor extraction.

Product recovery has decreased from a high of over 800,000 gallons of product extracted in 2009 to approximately 50,000 gallons in 2023. Out of the 13.45 million gallons of product removed to date, ExxonMobil has removed 9.5 million gallons.

Regarding groundwater treatment, two existing groundwater treatment systems, one at 400 Kingsland Avenue and the other located at 5 Bridgewater Street, extract groundwater with dissolved hydrocarbons and treat the water to NYSDEC standards. The treated groundwater is then discharged into Newtown Creek at two permitted outfalls: Outfall 001 at 400 Kingsland Avenue and Outfall 002 at the foot of Meeker Avenue. The groundwater systems treat and discharge approximately 1,000,000 gallons of groundwater per day, with treatment consisting of: metals removal (aeration, sand filters, filter press); air stripping and process air treatment.

SPDES permit modification proposal:

- Modify the SPDES permit to account for changes to the treatment and discharge process for treated water from the product recovery system.

- Relocate and consolidate the two existing groundwater treatment systems into a new system at 38 Varick Street.

- This single treatment facility will be designed to handle the combined flow from all existing recovery wells and maintain compliance with the SPDES discharge limits.

- Discharge of the treated water will occur through the existing Outfall 002 at the northern end of Meeker Avenue.

Objectives are the optimization of the long-term operational efficiency of the groundwater treatment system and reducing operational footprint of the ExxonMobil remedial systems.

Potential Impacts:

New Facility Construction from November 2024 – April 2026 (approximately 1.5 years) plus Long-term Operations & Maintenance.

During construction: impacts are expected to be typical of new building construction

- Intermittent periods of increased traffic
- Traffic management plan to be utilized
- Potential nuisance, dust, odors and noise produced by intermittent heavy construction equipment
- Community Air Monitoring Program (CAMP) to be utilized

Long-term:

- Operations and Maintenance activities will produce background mechanical noise.
- All equipment will be installed within the walls of the new facility, the potential for nuisance noise to exist outside of the facility is minimal.
- Periodic material deliveries and operational waste removal will result in an intermittent increase in activity at the 38 Varick Street property.

As is required by the state permitting process, ExxonMobil must hold public meetings and compile public comments. After submission of their application that includes public input, DEC will open its own public comment period. No set timeline for either.

Discussion:

Steve Chesler: Is the discharged groundwater replaced? Is there a concern that subsidence will occur above treated areas? Keving Thompson: It is not being replaced. Groundwater is pervasive. Courtney Lind: They are monitoring this.

Laura Hofmann: What kind of odors are being noticed? How are they being monitored? Courtney Lind: Through the CAMP system. If odors are significant during construction, foam treatment will be used.

Laura Hofmann: What does long term groundwater treatment mean? Kevin Thompson: DEC will determine when completion is reached. Liquid product recovery extraction is slowing and has leveled, but still continuing. Justin Kennedy: We will continue until DEC makes a determination.

Kelly McCabe: Will nuisance noise from construction be severe? Courtney Lind: No.

Christine Hołowacz: Regarding future use of 400 Kingsland Avenue site after that groundwater treatment facility is decommissioned? Have you determined a future use of the site? Kevin Thompson: This issue is beyond the scope of this meeting and the permit modification, but we will report this question back to the company and DEC. Kevin LaCherra: Would argue that the future use of 400 Kingsland is very relevant, and dependent is a way, to the SPDES permit modification application. It is approximately 10 acres that could be repurposed for something other than it being sold for industrial or manufacturing uses. Its severe contamination rightly causes intense concern. There is an ongoing environmental justice fight in this neighborhood. We should take pause if resilient design or purpose is not a prime consideration. Madelyn Wilson: We have nothing else to share about this. Kevin Thompson: The consolidation is happening, but we will take these comments back to ExxonMobil. Christine Holawacz: Exxon should consider community needs and what is honorable. Not more trucks. We have been so impacted by the spill. Kevin Thompson: All comments made must be included in their report to Exxon and DEC. Jason Sinopoli: What agencies will help decide (the use of this land)? Heidi Vanderlee: This feels wrong. Simon Weiser: Exxon has already paid for the cleanup. Why do they need to do more? Laura Hofmann: She disagrees. She and her family have experienced years of health issues. She was one of the original plaintiffs (in the suit against Exxon).

Shangton Lee (Newtown Creek Alliance): Has an analysis been performed on the carbon footprint and sustainability of the old facilities and the new one? Floodplain analysis for 400 Kingsland vs 38 Varick new facility location? Kevin Thompson: Lessons have been learned that are informing the design of the new facility.

Bess: Have you evaluated flood considerations? Erosion? Justin Kennedy: Exxon stabilized the Meeker Ave Street end.

Steve Chesler: Are the 2 existing systems dependent on one another, especially during maintenance of one of the systems? Justin Kennedy: the new system will have redundancy built into it.

Willis Elkins: Will construction result in the removal of trees and/or planted areas? Kevin Thompson: Removed species will be replaced.

Steve Chesler: Appeals to Exxon to consider the community considering the Greenpoint-Williamsburg rezoning and commitments not fulfilled, and Exxon's history (required remediation of the undeveloped sections of Bushwick Inlet Park from Standard Oil contamination footprint, its pollution footprint with the Newtown Creek Superfund site and the oil spill. Climate mitigation is a primary concern for this district, especially since the US Army Corps of Engineers' NYNJHATS Storm Risk Management Plan fell significantly short in its design for our district.

Kevin LaCherra: Recovered product is being repurposed by state requirement. 9.5 million gallons since 1979. Multi Millions in return. Kevin Thompson: Enormous burden in recovering product results in no profit for Exxonmobil. Madelyn Wilson: 100-year-old product results in intense degradation. It is not being utilized, only recycled or disposed of. Kevin Thompson: It is valueless to Exxon, to pay to have it taken off their hands.

Shangton Lee: Regarding OU2, have potential negative impacts of the new facility been analyzed? Justin Kennedy: An evaluation must be submitted. Shangton Lee: What is the life expectancy of the new equipment? Justin Kennedy: Approximately 25 years. Shangton Lee: Will another facility be needed at that point? Justin Kennedy: If necessary. Kevin Thompson: DEC will determine what we will need to do here.

Sarah Durand: Current is in a floodplain. Is this being considered? Kevin Thompson: The entire site is. Yes. Sarah Durand: A tidal wetland was filled in here in 1982? Kevin Thompson: 1982.

William Vega: No profit should be made (on the 400 Kingsland Ave site). There should be a public benefit. Residents paid with blood (for the negative effects of this site). Willis Elkins: We have been on divergent paths for a long time, *but we are better now than we were 20 years ago. 400 Kingsland Ave offers an opportunity for collaboration between ExxonMobil and the community.*

Motion by Steve Chesler to recommend the board submit the following comment along with a copy of the June 6th, 2024 the Environmental Protection Committee report, to ExxonMobil and NYSDEC regarding the SPDES Permit Modification Proposal to consolidate ExxonMobil's Greenpoint Oil Spill Product Recovery Operation, copying federal, state and city elected representatives:

1) **ExxonMobil perform due diligence and beyond with mitigating potential construction operation hazards including but limited to air monitoring, noise, dust, odors and construction related traffic**
2) **ExxonMobil replace all trees and planted areas removed and damaged during construction of the new treatment facility at 38 Varick Street**
3) **ExxonMobil strongly consider future public and resilient uses for 400 Kingsland Ave after its water treatment facility there is dismantled, that will help sustain and heal the community from decades of environmental degradation at multiple sites currently and previously owned by ExxonMobil and its historic acquired subsidiaries in Brooklyn Community District #1**
4) **ExxonMobil work to be a better partner and to improve its relations with the community**

Second by William Vega.

The vote was as follows:

5 "YES"; 0 "NO"; 0 "ABS"

Motion carries.

Meeting adjourned.

United States Environmental Protection Agency

EPA SEEKS PUBLIC COMMENT ON A PROPOSED CLEANUP PLAN FOR POTENTIAL INDOOR AIR CONTAMINATION AT THE MEEKER AVENUE PLUME SUPERFUND SITE

BROOKLYN, NEW YORK

APRIL 2024

The U.S. Environmental Protection Agency (EPA) is asking the public for input on its proposed plan to address the potential vapors that may be entering into residential and commercial buildings at the Meeker Avenue Plume Superfund site, which is located on approximately 191 acres across several city blocks in the East Williamsburg and Greenpoint neighborhoods of Brooklyn, New York. The soil, soil gas and groundwater at the site are contaminated with chlorinated volatile organic compounds (CVOCs), including tetrachloroethylene (PCE) and trichloroethylene (TCE).

EPA's Proposed Cleanup Plan

EPA's proposed cleanup plan for addressing indoor air concerns due to site-related vapors that may be entering structures (vapor intrusion) involves installing mitigation systems called sub-slab depressurization systems where needed. Under the proposed plan, where EPA's evaluations determine it is necessary, EPA would install sub-slab depressurization systems and may also take preventative measures such as the sealing of cracks and gaps in the lowest level of a structure, where necessary. Sub-slab depressurization involves connecting an electric fan to a small suction pit dug into the slab that will vent vapors outdoors above the building's roofline.

EPA developed this plan in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health.

Chlorinated volatile organic compounds (CVOCs) including tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (DCE), and vinyl chloride, are man-made chemicals that evaporate at room temperature and are associated with a higher risk of reproductive effects and cancer after prolonged exposure.

Learn more about PCE, TCE, DCE, and vinyl chloride from the New York State Department of Health.

Get Involved!

Public Meeting Date:
Tuesday, April 16, 2024, 6:00 p.m.

Location:
St. Stanislaus Kostka Lower Church
607 Humboldt St., Brooklyn, NY

More information:
https://www.epa.gov/superfund/meeker-avenue-plume

Contact: Anna Drabek, 212-637-3586, drabek.anna@epa.gov

Public Comment Period

The proposed cleanup plan is available for public comment from **April 5 to May 10, 2024**. The public is encouraged to review the plan, attend the public meeting, and comment on the cleanup alternatives.

To provide comments to EPA:

Read the document online at www.epa.gov/superfund/meeker-avenue-plume

Send your comments to **Rupika Ketu**, ketu.rupika@epa.gov, or 290 Broadway, 18th Floor, New York, NY 10007

EPA must receive your comments by **May 10, 2024**.

744534

Past Cleanup Activities

EPA added the Meeker Avenue site to the Superfund National Priorities List (NPL) in March 2022. NYSDEC sampled over 160 properties since 2007, before EPA's involvement. EPA is assessing the level of contamination and its impacts to people's health.

As of December 2023, EPA sampled underneath and inside of 18 residential structures, 11 public housing buildings, and one public school. EPA has results that show no further action is needed at 15 of the residential properties, the 11 public housing buildings, and the public school. Three of the residential properties will require additional monitoring. In addition, in February and March 2024, EPA sampled 18 properties and will be evaluating the results, and will be conducting additional sampling in the future. Because prior sampling from NYSDEC did detect CVOC vapors inside several dozen properties, the state installed mitigation systems to handle the vapors.

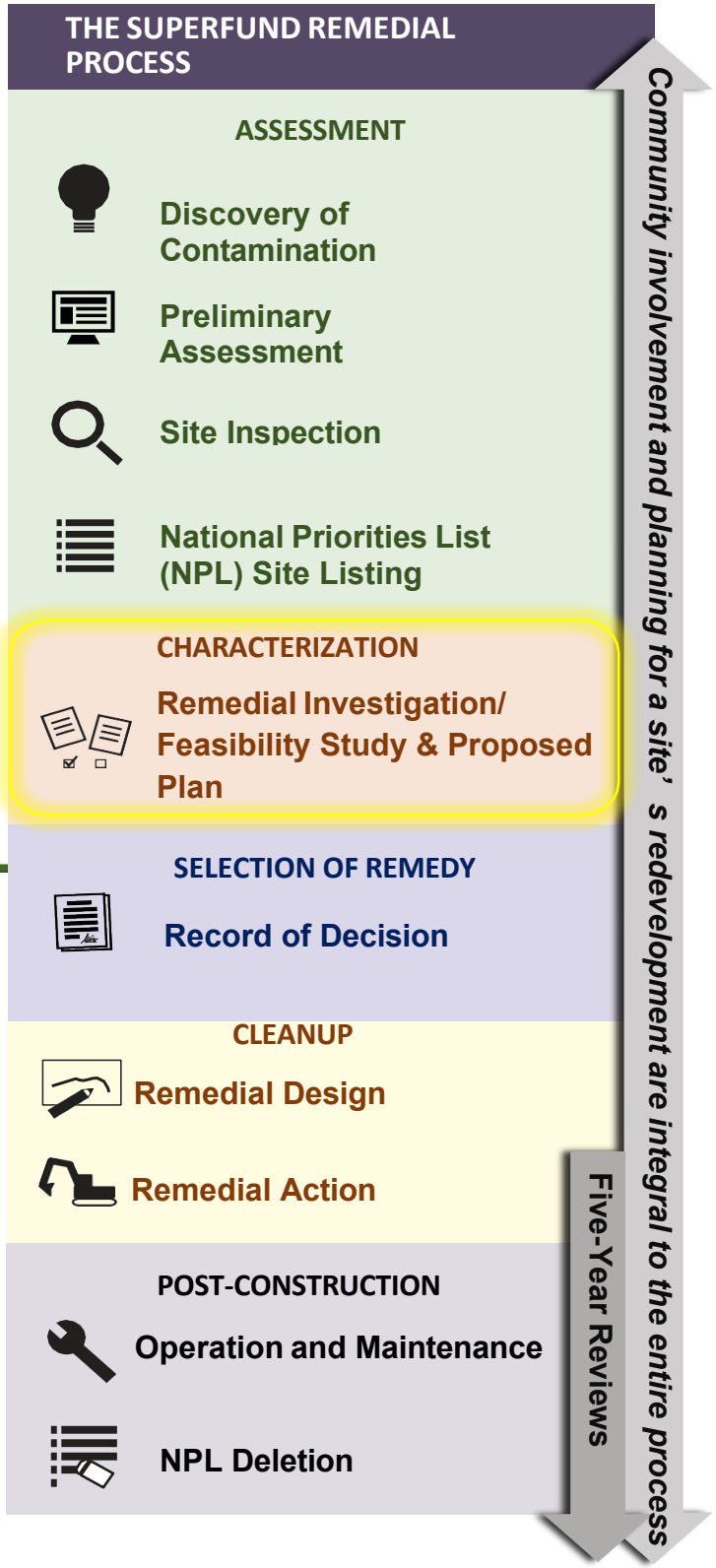
Where to Find More Information

EPA keeps site project information and reference materials for the public to read online and at local information repositories.

Copies of cleanup documents for the Meeker Avenue Plume Superfund site will be available at:

EPA Region 2 Superfund Records Center
290 Broadway, 18th Floor
New York, New York

Greenpoint Library
107 Norman Avenue
Brooklyn, NY



EPA Contact Information

Anna Drabek
Community Involvement Coordinator
212-637-3586 or 919-656-3417
Drabek.Anna@epa.gov

Rupika Ketu
Remedial Project Manager
(212) 637-3258
Ketu.Rupika@epa.gov

John Brennan
Remedial Project Manager
(212) 637-3881
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Rev 04.09.2024

ExxonMobil Greenpoint Petroleum Remediation Project
SPDES Permit Modification
Fact Sheet

- **Project:** ExxonMobil Greenpoint Petroleum Remediation Project (EMGPRP)
- **Applicant:** ExxonMobil Oil Corporation.
- **Facility:** 38 Varick Street, Brooklyn, New York 11222.
- **NYSDEC Application Number:** SPDES NY 0267724
- **A Public Participation Plan (PPP) has been developed in accordance with NYSDEC Commissioner Policy 29, Environmental Justice and Permitting (CP-29)**

What is the Proposed Project?

The Proposed Project will consolidate two existing groundwater treatment facilities associated with the EMGPRP into a new groundwater treatment facility to be constructed at 38 Varick Street, Brooklyn, NY 11222. To implement the proposed project, ExxonMobil Oil Corporation has submitted an application for a modification to its existing State Pollutant Discharge Elimination System (SPDES) permit to the New York State Department of Environmental Conservation (NYSDEC). The applicant is also going to submit an application for modification of its existing Long Island Well permit to allow for the relocation of certain recovery wells. The purpose of this fact sheet is to inform the public about this proposed project and to involve the community during the NYSDEC permit application review process.

ExxonMobil Oil Corporation proposes to modify its existing SPDES permit to allow for the modified discharge resulting from the relocation and consolidation of the two active groundwater treatment systems to a new groundwater treatment facility to be located at 38 Varick Street. Subsequent to the consolidation, treated effluent will only discharge from Outfall 002. ExxonMobil Oil Corporation also proposes to modify its Long Island Well permit to reflect the operational status and locations of recovery wells associated with the EMGPRP.

How might the project affect the surrounding community?

The potential impacts surrounding the construction of a new groundwater treatment facility at 38 Varick Street are expected to be typical of a new building construction. The existing RCS and ORS treatment buildings will be decommissioned following construction and start-up of the new facility. The new system will support long-term operations and remediation activities in accordance with the Site's Consent Decree. For clarity, the potential impacts have been categorized based on construction impacts (construction of new facility) and operational impacts (long-term operation of the new treatment facility):

The construction-based impacts are expected to be typical of new building construction and are expected to conclude within 1.5 years of groundbreaking. Impacts are expected to include:

- Potential intermittent periods of increased traffic due to equipment and material deliveries, as well as disposal of excavated soils and construction debris.
- Potential nuisance, dust, odors and noise produced by intermittent heavy construction equipment use during demolition and construction activities.
    - A Community Air Monitoring Program (CAMP) will be developed for all phases of the new facility's construction. The program will outline monitoring, response, and mitigation procedures to be implemented during construction. This program is intended to reduce the

likelihood of potential nuisance dust, odor or noise events occurring that would potentially affect the public.

The long-term operational impacts potentially include:

- Operations and Maintenance activities (once operational) will produce background mechanical noise. However, as all equipment will be installed within the walls of the new facility, the potential for nuisance noise to exist outside of the facility is minimal.
- Periodic material deliveries and operational waste removal will result in an intermittent increase in activity at the 38 Varick Street property.

How can I participate in the permit review process?

- Attend the upcoming virtual public meeting scheduled for May 9th, 2024 at 6:30 pm to learn about the project, ask questions and/or express concerns about the project.
- Ask questions, express concerns, provide input or submit by comments in writing, by phone or email to the project contact person identified below.

Where can I get more information about the proposed project?

- Visit the online document repository at: https://bit.ly/3vIqIWW to obtain application materials, relevant documents, and information about the project.
- Contact Kevin M. Thompson by phone at: (718) 404-0675, by email at: kevin.m.thompson@exxonmobil.com or in writing at: 38 Varick Street, Brooklyn, New York 11222 for information on the project, instructions on how to attend the upcoming virtual public meeting, or to find out about the status of the permit application and public comment period.

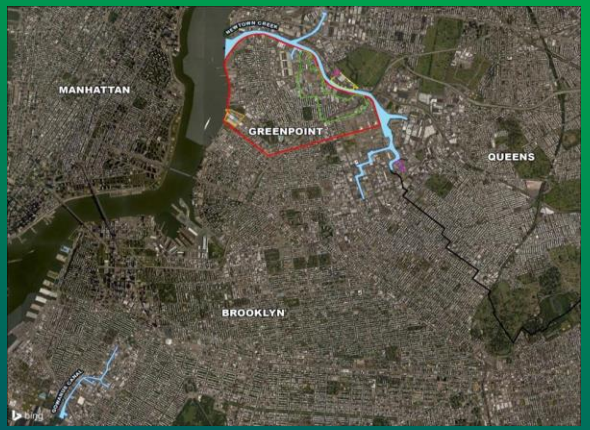
Who is responsible for reviewing the Permit Application?

- NYSDEC Region 2 Headquarters, 47-40 21st St., Long Island City, NY 11101, is responsible for reviewing and issuing the required permit modification. Tel: (718) 482-4997; email: DEP.R2@dec.ny.gov

ExxonMobil

June 6, 2024

Industrial SPDES Permit Modification
NY 0267724
Brooklyn CB1 Environmental Committee



ExxonMobil Greenpoint Petroleum Remediation Project

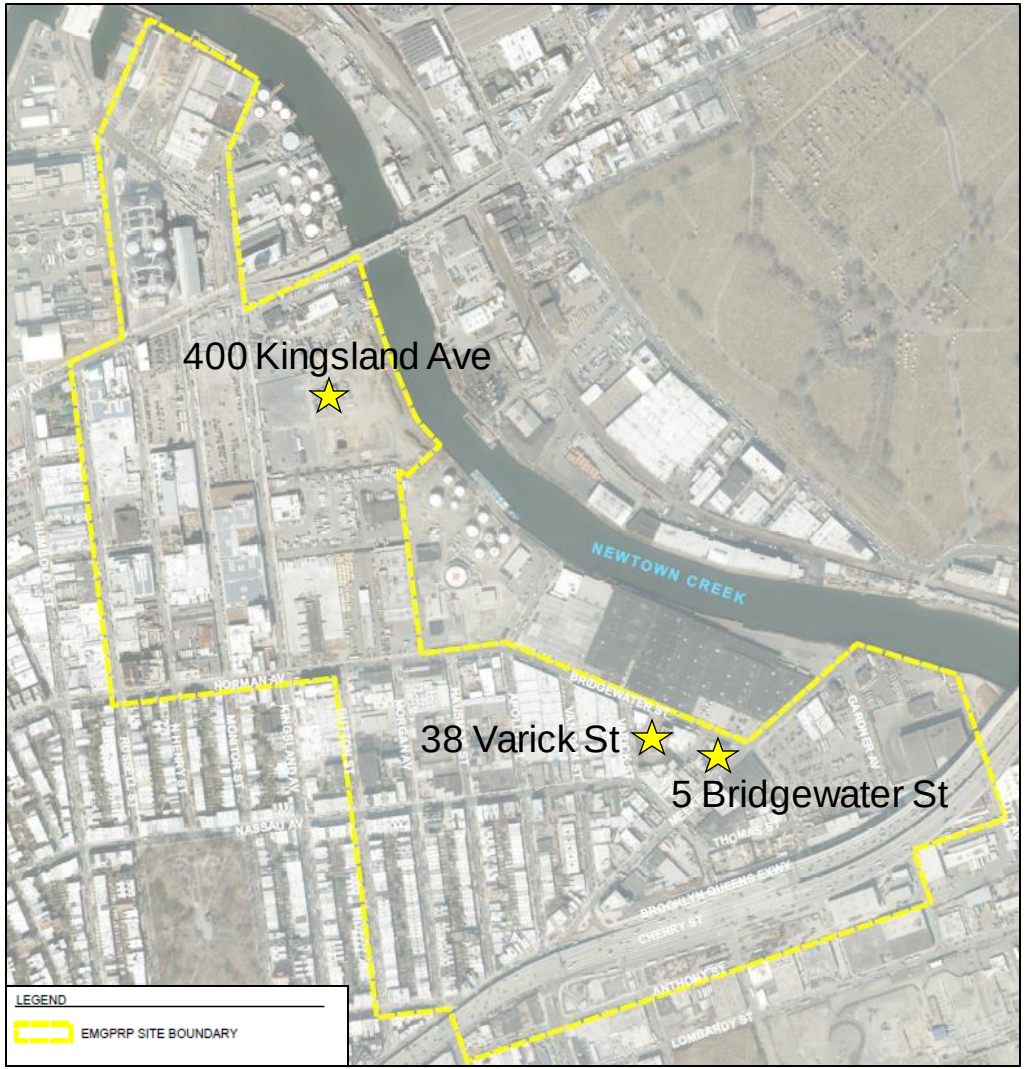
Introductions / Agenda

Introductions

- Madelyn Wilson – ExxonMobil
- Kevin Thompson - ExxonMobil
- Courtney Lind – Roux
- Justin Kennedy – Roux

Agenda:

- EMGPRP Project Overview
- SPDES Permit Modification
  - Project Overview & Background
  - Proposed Scope of Work
  - Potential Impacts, Mitigation Measures and Project Schedule
- Questions & Answers



EMGPRP Remediation Project Overview

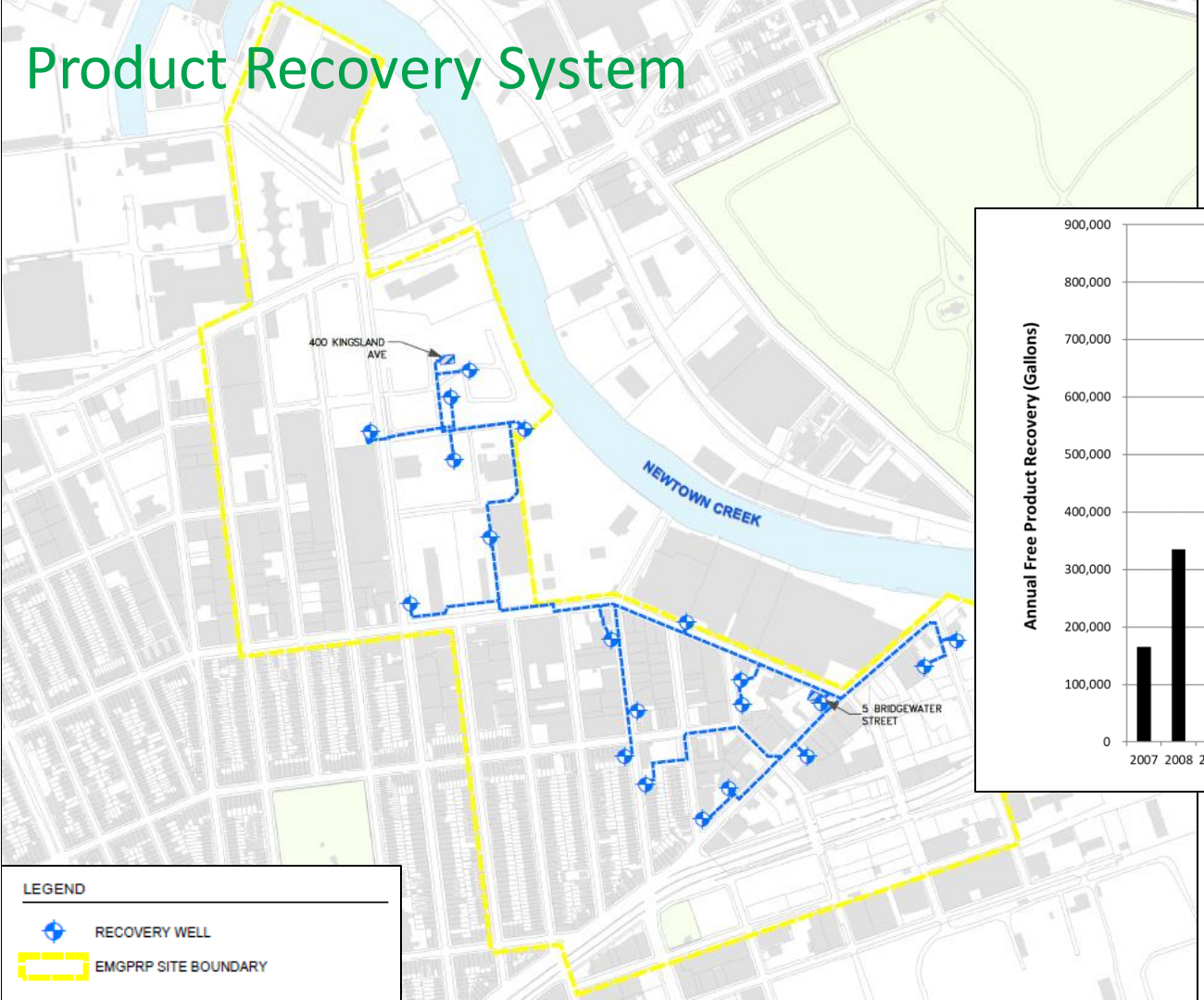
- ExxonMobil is conducting the remediation project to address releases of petroleum products from its historical operations. All work is performed under the regulatory oversight of the New York State Department of Environmental Conservation (NYSDEC)

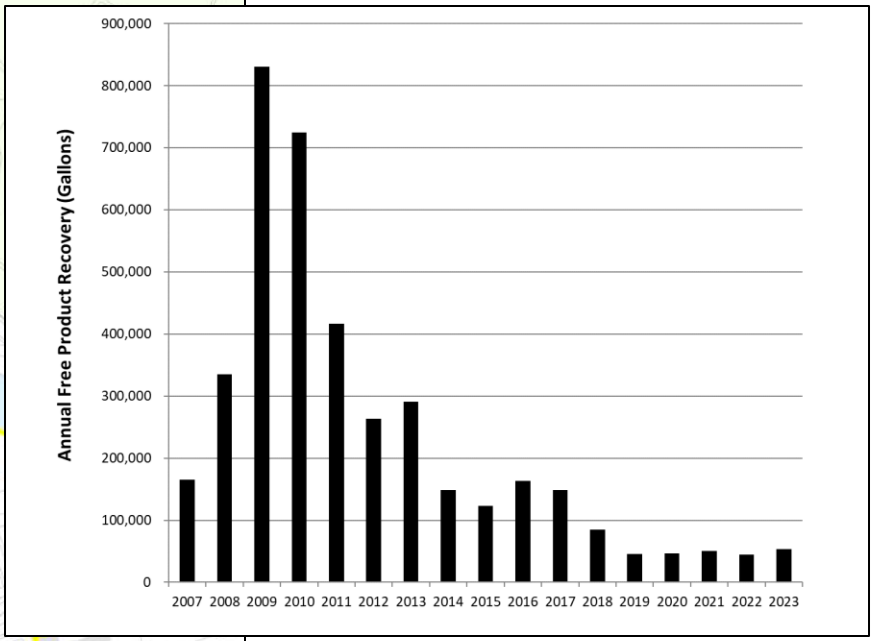
- Liquid product recovery is accomplished via a system of recovery wells which extract hydrocarbons in liquid form and send the liquid product to recycling facilities

- Groundwater containing dissolved product is also recovered and sent to two different groundwater treatment systems for treatment to NYSDEC standards, then discharged into Newtown Creek under an existing SPDES permit issued by NYSDEC

- Soil vapor containing hydrocarbons is extracted and treated in a Soil Vapor Extraction (SVE) unit located at 38 Varick Street

Product Recovery System





Groundwater Treatment Systems

- Two existing groundwater treatment systems, one at 400 Kingsland Avenue and the other located at 5 Bridgewater Street, extract groundwater with dissolved hydrocarbons and treat the water to NYSDEC standards

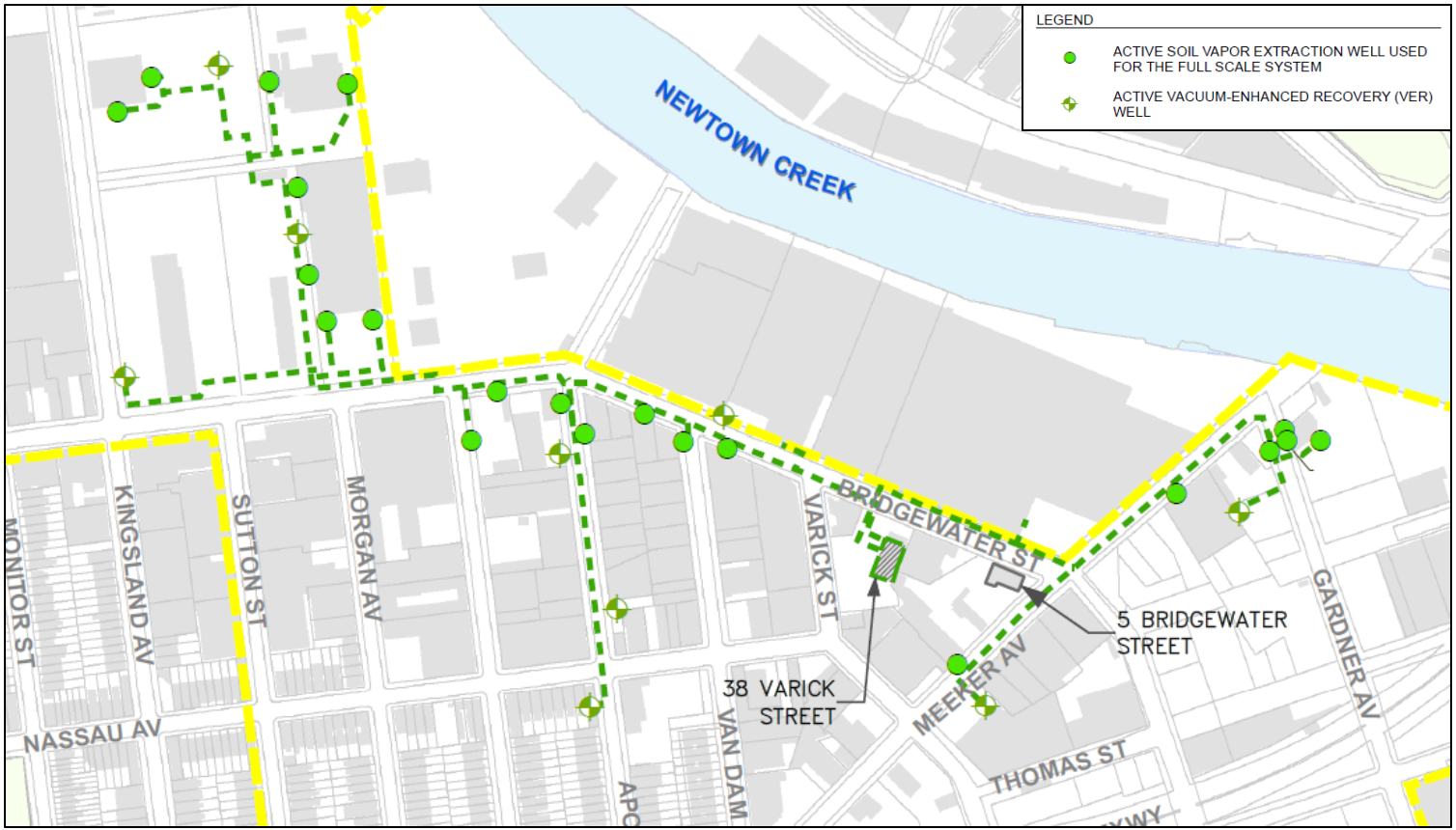
- The treated groundwater is then discharged into Newtown Creek at two permitted outfalls
  - Outfall 001 at 400 Kingsland Avenue
  - Outfall 002 at the foot of Meeker Avenue

- The groundwater systems treat and discharge approximately 1,000,000 gallons of groundwater per day, with treatment consisting of:
  - Metals removal (aeration, sand filters, filter press)
  - Air stripping
  - Process air treatment

Groundwater Treatment Systems

- 400 Kingsland Avenue
- 5 Bridgewater Street

Soil Vapor Extraction



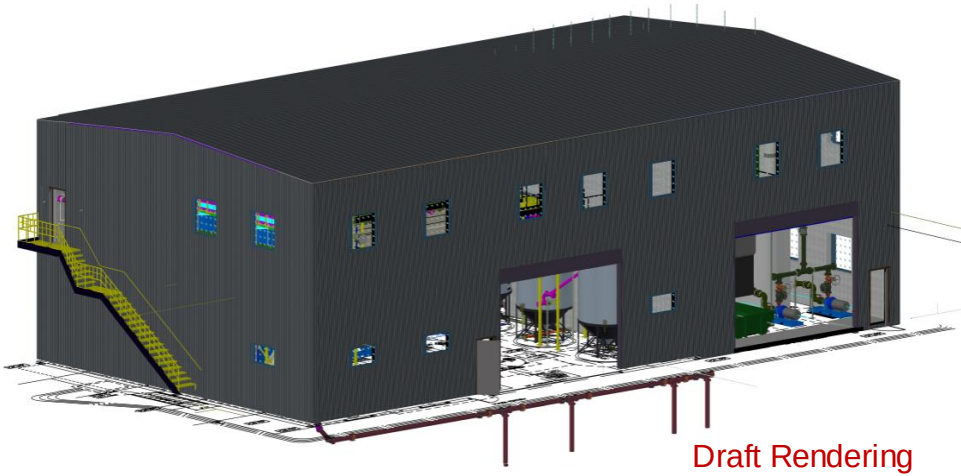
SPDES Permit Modification – Proposed Scope of Work

- Modify the SPDES permit to account for changes to the treatment and discharge process for treated water from the product recovery system

- Relocate and consolidate the two existing groundwater treatment systems into a new system at 38 Varick Street

- This single treatment facility will be designed to handle the combined flow from all existing recovery wells and maintain compliance with the SPDES discharge limits.

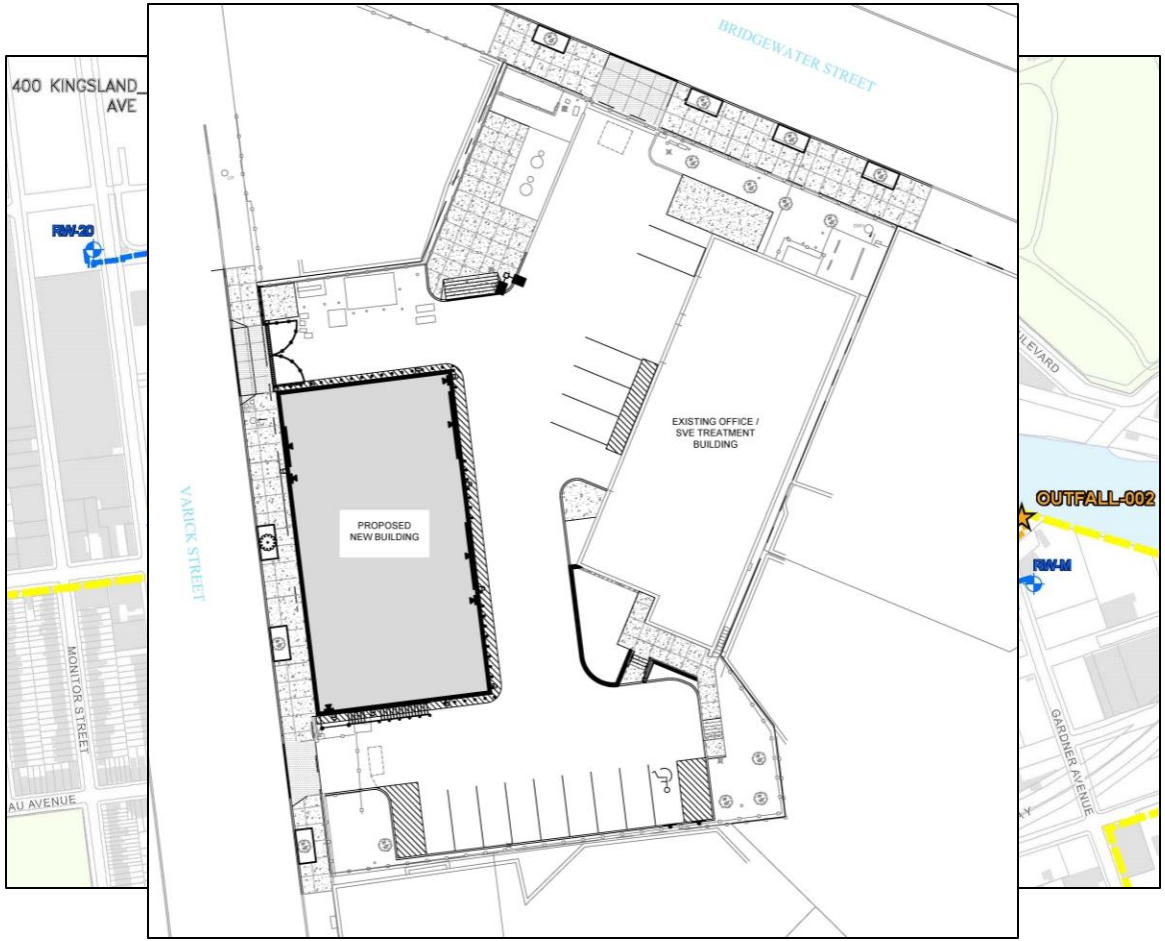
- Discharge of the treated water will occur through the existing Outfall 002 at the northern end of Meeker Avenue



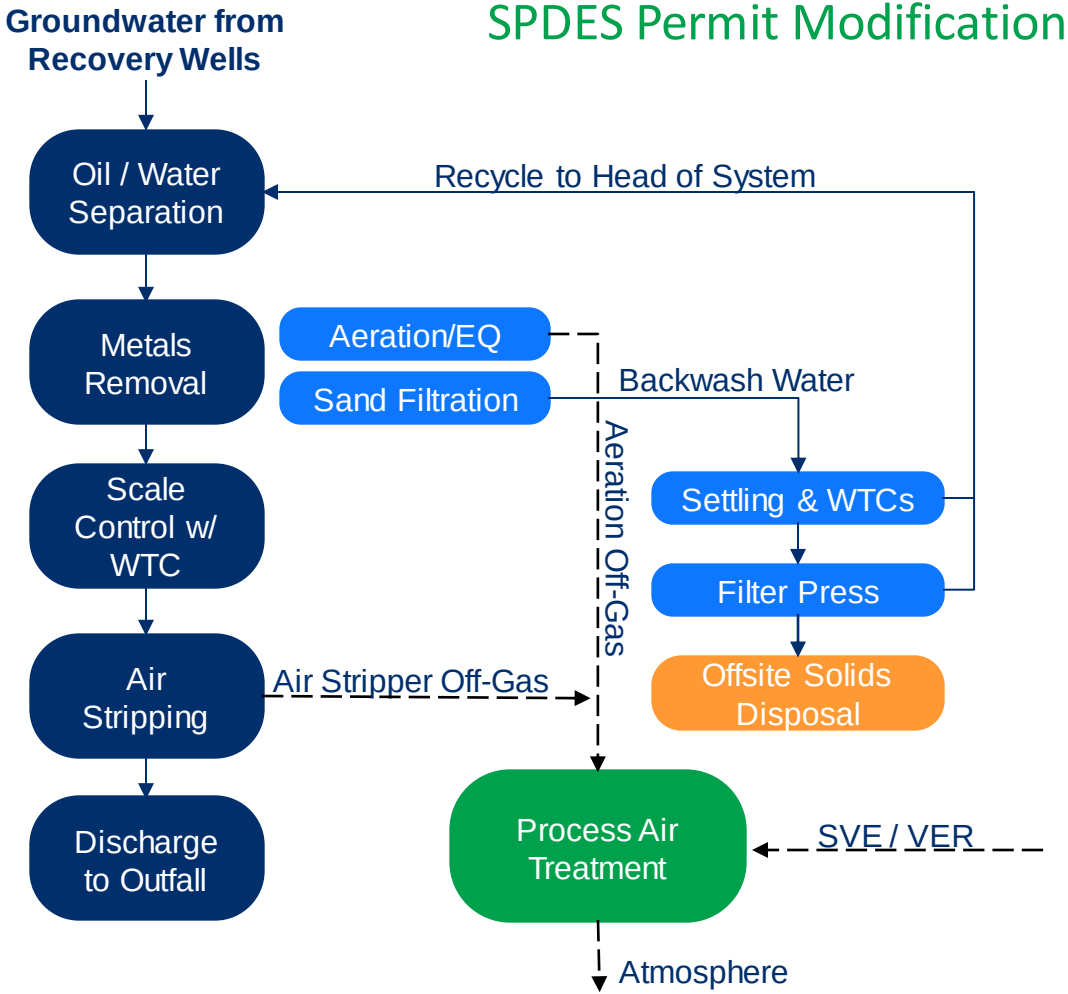
Draft Rendering

Groundwater Treatment Facility Consolidation Objectives

- Optimization of the long-term operational efficiency of the groundwater treatment system
- Reducing operational footprint of the ExxonMobil remedial systems



SPDES Permit Modification – Treatment Technologies



- Preliminary Design Basis and Objectives
  - Maintain treatment train similar to existing GW treatment systems
  - Provide redundancy and additional capacity for all key system components to maximize system runtime and operational flexibility
  - Reuse existing force main piping to handle groundwater feed and discharge operations
  - Incorporate lessons learned from existing systems to optimize future operations and maintenance

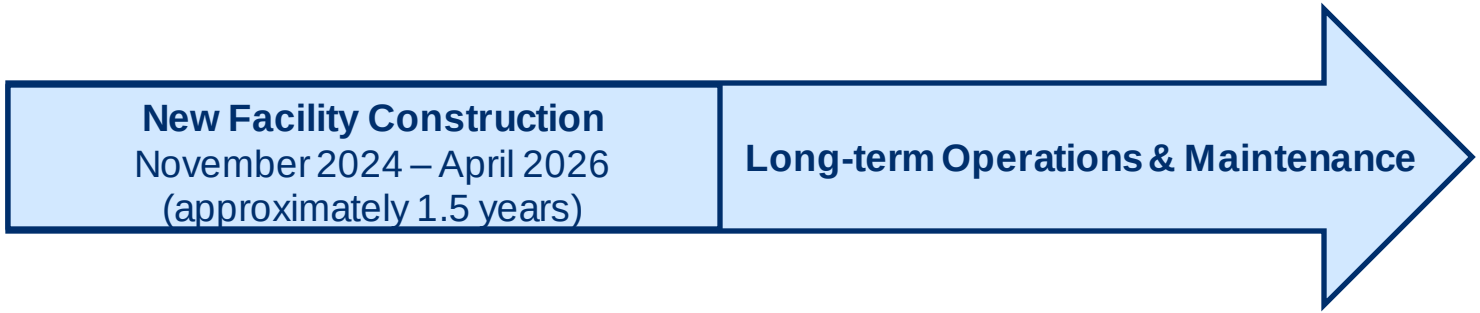
SPDES Permit Modification – Potential Impacts, Mitigation and Project Schedule

During construction: impacts are expected to be typical of new building construction

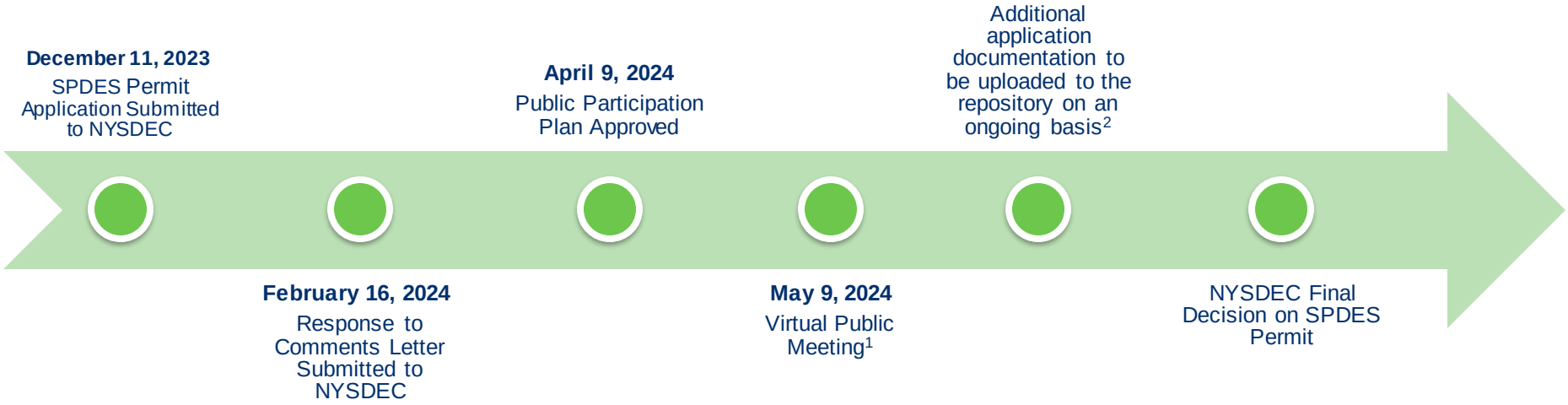
- Intermittent periods of increased traffic
  - Traffic management plan to be utilized
- Potential nuisance, dust, odors and noise produced by intermittent heavy construction equipment
  - Community Air Monitoring Program (CAMP) to be utilized

Long-term:

- Operations and Maintenance activities will produce background mechanical noise. However, as all equipment will be installed within the walls of the new facility, the potential for nuisance noise to exist outside of the facility is minimal.
- Periodic material deliveries and operational waste removal will result in an intermittent increase in activity at the 38 Varick Street property.



SPDES Permit Modification – Application Status/Timeline



Notes:

1. ExxonMobil to receive public comments during the meeting and on an ongoing basis thereafter. Comments received prior to the Final Summary Report will be captured within the report.
2. Example documentation includes, but is not limited to, Long Island Well Permit Application, NYSDEC Notice of Complete Application and Draft SPDES Permit (30-day NYSDEC public comment period), and the Final Summary Report and Written Certification.

For More Information

Online document repository:

https://bit.ly/3vIqIWW

Notice of Complete Application (pending):

- To be published in local newspaper
- To be provided in online document repository
- Contact Project Liaison to receive a copy by email, mail, or telephone

Project Liaison - Kevin M. Thompson
Public & Government Affairs Advisor
(718) 404-0675
kevin.m.thompson@exxonmobil.com
38 Varick Street, Brooklyn, New York 11222

Questions?

To submit questions, comments, and concerns after the meeting:

Project Liaison - Kevin M. Thompson
Public & Government Affairs Advisor
(718) 404-0675
kevin.m.thompson@exxonmobil.com
38 Varick Street, Brooklyn, New York 11222

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nationalgrid

National Grid Newtown Creek Purification System Operations Update

The system performed in line with expectations for a facility of this complexity during the first year of operation. We addressed issues that arose. This is a demonstration project, and we learn from it every day.

The Newtown Creek Renewable Energy Project helps address climate change and creates a model for sustainability – it reduces GHG emissions today – by utilizing an existing waste stream to produce a reliable source of renewable energy while diverting food waste from landfills.

National Grid NTC Operations
By the Numbers

Year	Percent of Operational Hours Online
2023	44%
2024	85%

Adjustments made in the first year:

- Vibration at the feed gas compressor that required repairs -- accounting for 67% of total outage time in year one.
- Re-evaluated spare parts on hand for quicker response rates.
- System tuning, adjustment, and calibration – which is common during the first year of operation.

Increased transparency:

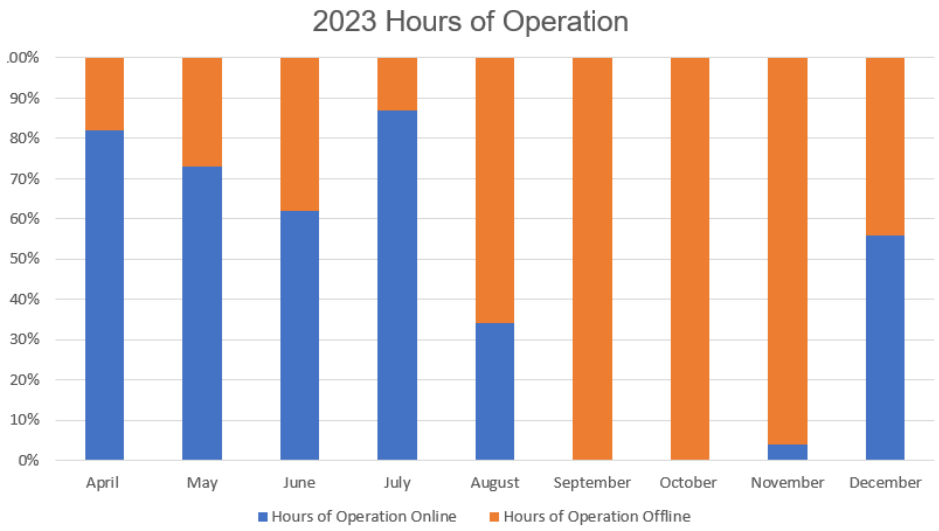
- Closer coordination/collaboration with DEP.
- Implemented real-time system status monitoring.
- Worked with DEP to create a public website showing system status.

Equivalent emission avoidance:

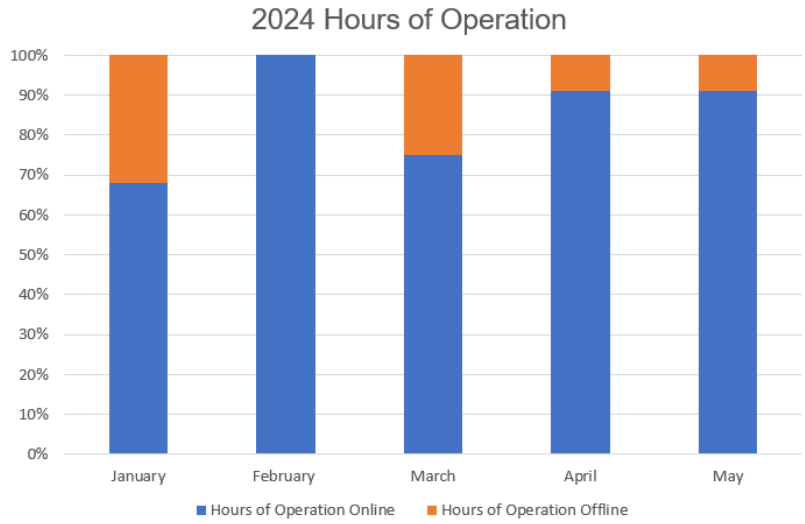
- **116,717 MMBtu** of RNG was injected into the distribution system in year one, which has **reduced emissions by more than 30,400 MT of CO2e.** That is equivalent to removing **7,235** vehicles from the road for a year (Source EPA Greenhouse Gas Equivalencies Calculator)

nationalgrid

National Grid NTC 2023 Operations
April through December



National Grid NTC 2024 Operations
January through May



Rev: June 6, 2024

From: Lael Goodman
To: Ketu, Rupika
Subject: Meeker Avenue Plume Proposed Plan
Date: Wednesday, June 26, 2024 9:13:07 PM
Attachments: Meeker CAG Proposed Plan Comments.pdf

Hi Rupika,

As a contributor to the CAG comments, North Brooklyn Neighbors would like to express our support and reiterate the concerns put forward by the Meeker Avenue Plume CAG, attached here.

Thanks,
Lael
--
Lael K. Goodman (she/her)
Director of Environmental Programs
North Brooklyn Neighbors
240 Kent Avenue
Brooklyn, NY 11249

Currently working Mondays, Tuesdays, and Thursdays. Thanks for your patience.
718.384.2248 ext. 111

Meeker Avenue Plume CAG

Vapor Intrusion Proposed Plan Public Comments

OU2 Standards

1. *The CAG requests that the EPA provide a proposal for how the agency plans to test buildings at risk of vapor intrusion within the Investigation Area.* The CAG is also concerned about the vast number of properties where owners have not yet granted access and the lack of clarity from the EPA in how realistic it would be for them to not only compel testing but address the issue in a systematic way. Thus far, during the two heating seasons, the EPA has managed to test around 50 properties, far short of what should be done to provide adequate information and public health protection in our community. While the CAG is and will continue to aid the EPA in directing community members to get testing, the onus is on the EPA to protect our community and thus far, the number of properties tested is not fulfilling that mission. We request information to be made public about how many properties exist where the property owner has refused testing.
    a. This plan should be a proposal that has new strategies for outreach, including outreach to non-residential properties, that has not yet been implemented by the EPA, as it has become obvious that the current strategies are not getting results quickly enough to protect community health.

2. We believe the Remedial Action Levels should be more stringent.
    a. Residential RAL for TCE
        - In particular, EPA Region 9 recommends that the TCE standard be 2 ug/m3 for residential. The New York State Department of Health also recommends that "TCE concentrations in the air not exceed 2 ug/m^3." Further, Section 121(d) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires that on-site remedial actions attain or waive federal environmental applicable or relevant and appropriate requirements (ARARs), or more stringent state environmental ARARs, upon completion of the remedial action. In this case, the state standard is more stringent, and *we would request that based on these two factors, the Remedial Action Level should be 2 ug/m3 or below.*
    b. Commercial/Industrial RAL for TCE
        - Both the 8-hour and 10-hour workday RAL for TCE are also below what the EPA Region 9 has recommended. Because of the number of people who both live and work in our neighborhood, and because of frequency with which people work greater than an 8-hour workday here, we would request that instead of using an 8-hour workday for calculations, the EPA instead use a 10-hour workday and match if not exceed the stringency of the standards set in EPA region 9. *This would set the Commercial/Industrial RAL for TCE to be 7 ug/m3 rather than the proposed indoor air standards of 8.8 ug/m3.*
    c. Residential RAL for PCE

- The RALs for PCE seem to correspond not to a one in a million cancer risk, but instead are pegged to non-cancer risk. Our community deserves to be granted the utmost protection and we are concerned that the EPA allows a cancer risk range of 1x10-4 and 1x10-6, but the RALs do not correspond to the most stringent standard. Given the New York State Department of Health has guidelines of 30 ug/m3 for PCE, we would request that ARARs be taken into consideration and set a guideline of 30 ug/m3 or less.

d. Commercial/Industrial RAL for PCE

- We would again request that the RAL be calculated based on a 10-hour day rather than an 8-hour workday for the same reasons as mentioned above.

3. At the May 30, 2024, presentation by the EPA, results of some of the well sampling were presented. A select list of contaminants found in the groundwater was presented, many of which are known to be harmful to human health. While the CAG applauds the investigation of PCE and TCE in the area, given the profusion of other harmful contaminants, we are concerned that other contaminants that may negatively affect our public health are not being properly considered. *When the EPA does indoor air sampling, does it test for other contaminants? If so, which ones? If levels of these contaminants are found at harmful concentrations, what is done?* We request that the EPA take full advantage any time they have access to a property and ensure the inhabitants are protected not just from PCE and TCE, but also from other potentially harmful compounds, especially those that have been found to be present in the groundwater sampling.

4. While the proposed plan is an intermediate remedy and may not be subject to ARARs (according to TASC Technical Advisor Brian Younkin) and the CAG believes that it is vital that they apply in this case. The EPA has stated numerous times that the reason that it is addressing vapor intrusion now is because it is an immediate health risk. As of yet, we have no timeline or plan for an underlying cleanup or removal action. It is unknown for how long our community will exist with only this proposed plan to protect our health, and because of all these unknowns and the EPA's own indications that the health risks are immediate, we believe that the standards of ARARs should apply. Additionally, the community has been very supportive of and even pushed for the site to move from a state-level site to the National Priorities List. If this move means less protective health standards than we had under our state cleanup, this goes against all the reasons that the site was elevated to a national status.

5. The CAG believes that soil gas vapor testing should be implemented in addition to soil vapor intrusion, since it can be done in the public right of way and would provide some data on how likely a vapor intrusion risk is at a particular property, even if access to that property is denied. This would provide additional information to help the EPA determine whether it is vital to consider using additional measures to gain access to the property for testing. Depending on the underlying properties of soil in different parts of the neighborhood, the well sampling might not be a good proxy for soil gas vapor and potential vapor intrusion.
    a. Without a larger data set of results from indoor air testing, we can't feel confident that a plan based on such a small sample of properties is the best for our community. For example, soil gas vapor testing could be used at residences where tenants have

requested testing, but the property owner has not granted access, should the EPA be unwilling to use its administrative authority to force access.

6. The CAG also would ask that the EPA be willing to test apartments on upper floors in elevator buildings and buildings with other vertical conduits. It has been found that elevators can increase the movement of vapors throughout a building. The EPA has stated on numerous occasions that testing every building within the investigation area would be an aspirational goal. Since there is evidence that upper-level apartments in elevator buildings may have greater risk of indoor air issues due to vapor intrusion, we see no reason why the EPA should turn away willing participants of this type.

7. The CAG believes the EPA should do vapor intrusion sampling outside of the winter heating season.
    a. **The EPA should identify test sites where indoor air is sampled during the winter heating season and at other times as well**, especially during times of heavy rainfall to assess whether winter heating season testing is indeed the best method for determining risk of vapor intrusion. Seasonal variability of factors such as weather and rainfall can affect vapor intrusion. From a June 2015 document of the EPA's Office of Solid Waste and Emergency Response, "Because fluctuations in water table elevation can lead to elevated vapor concentrations in the vadose zone, EPA also recommends that "near source" soil gas sampling (and possibly a soil gas survey) be considered in different seasons that coincide with groundwater fluctuations."
    b. The CAG also believes that given that TCE exposure during the first few weeks of pregnancy increases the risk of heart damage to a developing fetus, **testing should be done in homes at any season if there is a person of childbearing age living in the home.** The risk is greatest between weeks 2 and 8 of pregnancy, which is often before a person may even know that they are pregnant. Thus, to reduce the risk of birth defects, it would make sense to ensure safe living and working conditions for any person who may become pregnant.

8. The CAG has questions about how long the results of vapor intrusion testing are valid. Given that the condition of the foundation, for example, can change with construction projects, earthquakes, etc, we are concerned that while initial testing may deem a location "safe," the status may change in the future. We would like to see a schedule under which properties can be retested or a list of changes that would make a property eligible to be retested. We have seen it suggested that if soil gas vapor tests above a certain threshold, perhaps mitigation should be suggested in locations even if the indoor air tests "safe" in the event of future changes to the building.

9. The CAG is concerned that not all available information is being collected and analyzed. In particular, the EPA should use all data and wells from the National Grid site to determine the extent of the plume given that groundwater analysis presented at the May 30, 2024, CAG meeting showed that contamination exists right up against the current boundary of the plume and the National Grid property. We also believe that there should be better coordination with

the Newtown Creek site in order to gain further information about how the two sites affect one another.

From:	Maeve BT
To:	Ketu, Rupika
Cc:	Brennan, John F.; Vega, Carlos
Subject:	Re: Meeker Superfund Testing
Date:	Monday, April 29, 2024 10:40:49 AM

Hi Rupika,

Hope you are well. I saw this article recently: https://mail.google.com/mail/u/1/#search/rupika/KtbxLwgswrHnkxCxmBhCHGppFMvBJcqpLV and in this Gothamist article: https://gothamist.com/news/poisonous-vapors-may-be-affecting-over-1k-buildings-in-greenpoint-and-east-williamsburg

Am I able to submit a public comment here? If so here it is below:

As mentioned previously one year ago, the fact that we have to get landlord permission to get our apartment tested basically makes this testing program useless. As someone with health problems living on the Meeker Superfund site who wanted to get our building tested, I was unable to do so because I couldn't get landlord permission. This is an old building with many visible cracks in the facade and ground floor where vapors could easily get through, plus a basement unit. For this program to work a court order needs to be put in place immediately requiring testing, because when left with a choice, the overwhelming majority of landlords will not choose to get the space tested. It is completely unrealistic to think that they will comply voluntarily. Delays continue to jeopardize the health of the community who actually lives in the superfund site- the renters.

Thanks,
Maeve

APPENDIX V

RESPONSIVENESS SUMMARY
Attachment B- Proposed Plan

Superfund Proposed Plan

Meeker Avenue Plume Superfund Site

Brooklyn, Kings County, New York

Superfund Proposed Plan *April 2024*

EPA ANNOUNCES PROPOSED PLAN

This Proposed Plan describes the remedial alternatives that the United States Environmental Protection Agency (EPA) considered to address vapor intrusion impacts at residential and non-residential properties at the Meeker Avenue Plume Superfund site (Site) located in Brooklyn, New York. This Proposed Plan also identifies EPA's preferred remedial alternative and provides the rationale for this preference.

The Site is being addressed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as the Superfund Law), as amended. A broad, comprehensive remedial investigation and feasibility study (RI/FS) for the Site is currently ongoing, which is referred to as Operable Unit 1 (OU1) of the Site. The OU1 RI/FS includes sampling at properties potentially impacted by subsurface vapors caused by Site-related contamination that can migrate under structures and up into an overlying structure (called "vapor intrusion"). This Proposed Plan has a narrower focus that is referred to as Operable Unit 2 (OU2) of the Site, which is to address mitigating the effects of unacceptable levels of vapor intrusion at residential and non-residential properties that are identified at the Site.

EPA's preferred alternative for OU2 calls for the installation of sub-slab depressurization systems at residential and non-residential properties where multiple lines of evidence indicate that subsurface vapor intrusion resulting from Site-related contamination is occurring at concentrations that represent a threat or potential threat to human health, as well as additional preventative measures, where necessary, such as the sealing of cracks and gaps in the lowest level of a structure. To use multiple lines of evidence means that EPA will evaluate multiple pieces of information and data to support a conclusion.

This Proposed Plan was developed by EPA, the lead agency, in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), the support agencies. EPA is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of

MARK YOUR CALENDARS

Public Comment Period:
April 5, 2024 to May 10, 2024
EPA will accept written comments on the Proposed Plan during the public comment period. Written comments should be addressed to:

Rupika Ketu
Remedial Project Manager
U.S. Environmental Protection Agency
290 Broadway, 18th Floor
New York, NY 10007
Email: ketu.rupika@epa.gov

Written comments must be postmarked no later than May 10, 2024. To request an extension, send a request in writing to Rupika Ketu by 5:00 pm on May 10, 2024.

Public Meeting
April 16, 2024
6:00 to 8:00 pm
St. Stanislaus Kostka Church
607 Humboldt Street
Brooklyn, New York 11222

EPA will hold a public meeting to explain the Proposed Plan. Oral and written comments will also be accepted at the meeting.

In addition, documents from the administrative record are available online at:
https://www.epa.gov/superfund/meeker-avenue-plume

CERCLA, as amended, and Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Release of this Proposed Plan initiates a 30-day public comment period. EPA, in consultation with NYSDEC and NYSDOH, will select a final remedy for OU2 after reviewing and considering all information submitted during the public comment period. EPA, in consultation with NYSDEC, may modify the preferred alternative or select another alternative presented in this Proposed Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives presented in this Proposed Plan.

This Proposed Plan summarizes information that can be found in greater detail in the focused feasibility study (FFS) report prepared for OU2, which can be found in the administrative record for this remedial decision. The dates for the public comment period, the public meeting described below, and the location of the administrative record can be found in the "Mark Your Calendars" text box on Page 1 and in the "For Further Information" text box on Page 12. EPA and NYSDEC encourage the public to review these documents to gain a more comprehensive understanding of activities for the Site.

COMMUNITY ROLE IN SELECTION PROCESS

This Proposed Plan is being issued to inform the public of EPA's preferred alternative to address vapor intrusion impacts at the Site and to solicit public comments pertaining to all of the remedial alternatives evaluated, including the preferred alternative. Changes to the preferred alternative, or a change to another alternative, may be made if public comments or additional data indicate that such a change would result in a more appropriate remedial action. The final decision regarding a selected remedy will be made after EPA has taken into consideration all public comments. EPA is soliciting public comments on all of the alternatives considered in the Proposed Plan because EPA may select a remedy other than the preferred alternative.

This Proposed Plan has been made available to the public for a public comment period that concludes on May 10, 2024.

A public meeting will be held during the public comment period to present the conclusions of the FFS, to elaborate further on the reasons for proposing the preferred alternative, and to receive public comments. The public meeting will include a presentation by EPA of the preferred alternative and other cleanup options.

Comments received at the public meeting, as well as written comments received during the public comment period, will be documented in a Responsiveness Summary section of a Record of Decision (ROD), along with EPA's responses. A ROD is a document that memorializes the selection of a remedy and the basis for the selection.

SCOPE AND ROLE OF THE ACTION

As with many Superfund sites, the contamination at this Site is complex, and the cleanup is being managed through more than one operable unit.

As described above, OU1 currently is broader and more comprehensive than the more focused OU2. A comprehensive RI/FS for OU1 was initiated in 2023 and is ongoing. That RI/FS includes the investigation of all media at the Site, including soil, soil gas, groundwater, surface water, sediment, and air.

This Proposed Plan identifies an interim remedy for OU2, which is to address unacceptable risks in indoor air resulting from Site-related contamination. The RI/FS for OU1 is still in its early stages. As such, the OU2 alternatives are being considered interim while EPA's overall conceptual site model of the Site is being developed. Any selected remedy for OU2 will be reviewed on an ongoing basis to determine if any changes to the selected alternative are needed.

The ongoing performance of vapor intrusion sampling to identify additional properties where the potential for vapor intrusion of Site-related contamination poses unacceptable risks will continue as part of OU1 of the Site. EPA's goal is to conduct vapor intrusion sampling at as many properties as possible at the Site.

SITE DESCRIPTION

The Site is located in Brooklyn, Kings County, New York and spans approximately 191 acres across several city blocks in the Greenpoint and East Williamsburg area of Brooklyn. The Brooklyn-Queens Expressway (BQE) roughly bisects the Site in a west-southwest to

east-northeast direction. The Site includes a mixture of residential, commercial, and industrial uses. These land use designations are not anticipated to change in the future. The total population within the Greenpoint and Williamsburg neighborhoods of Brooklyn where the Site is located is approximately 160,000 people.

Figure 1 at the end of this document shows the Site and the interim Study Area boundary, where Study Area is defined as the area where the OU1 RI/FS activities are currently focused. The interim Study Area boundary will be refined as the OU1 RI/FS continues and more data are obtained.

SITE BACKGROUND

The Site is located in a region of historic petroleum refining and storage operations that have occupied a significant portion of the Greenpoint area since approximately 1866. Currently, bulk oil storage terminals exist north of the Site and include the former British Petroleum Terminal (now Kinder Morgan) and the ExxonMobil Brooklyn Terminal. The former Paragon Oil facility was located along the northeastern portion of the Site along Newtown Creek, north of Bridgewater Street, between Meeker Avenue and Apollo Street. The contamination associated with the Site was discovered by NYSDEC during investigation and remediation of an adjacent and overlapping petroleum groundwater contamination area, which had resulted from historical petroleum refining and storage operations along the banks of Newtown Creek. During several rounds of investigation, chlorinated volatile organic compounds (CVOCs), including but not limited to trichlorethylene (TCE) and tetrachlorethylene (PCE), were found in subsurface soil and groundwater outside the petroleum spill area. Upon discovery of the CVOC contamination, NYSDEC initiated investigations in the area to determine the extent and sources of CVOC contamination, as well as the potential impacts of this contamination on the community.

Since 2007, NYSDEC in conjunction with NYSDOH, has conducted multiple investigations related to the Site. These investigations have consisted of soil, groundwater, soil gas, and soil vapor intrusion sampling. NYSDEC completed nine separate Site characterization investigations between 2007 and 2016 and ten soil vapor intrusion investigations between 2007 and 2023. In total, NYSDEC sampled more than 166 properties and installed 29 sub-slab depressurization mitigation systems to address vapor intrusion throughout the course of their investigations.

On March 17, 2022, the Site was added to EPA's National Priorities List pursuant to CERCLA and officially became a Superfund site. As mentioned above, EPA is currently conducting the OU1 RI/FS for the Site.

Site Geology and Hydrogeology

Based on soil borings performed at and near the Site by NYSDEC and other investigators, the Site is underlain from the ground surface down by the Upper Glacial aquifer, the Raritan Formation, and crystalline bedrock. The primary hydrogeologic unit is the Upper Glacial aquifer, which consists of a terminal moraine, a ground moraine, and glacial outwash deposits, and it is characterized by the United States Geological Survey (USGS) as an unsorted and unstratified mixture of clay, sand, gravel, and boulders. Textural units identified by NYSDEC in the Upper Glacial aquifer at the Site include fill material, silty sand, sandy silt, sand, and localized clayey silt / silt. Based on slug test results from several Meeker Avenue Plume Site monitoring wells, the hydraulic conductivity of the Upper Glacial aquifer ranges from 8.32×10^{-5} centimeters per second (cm/s) to 2.91×10^{-2} cm/s.

At and near the Site, the Upper Glacial aquifer is underlain by the Raritan Formation unit at an approximate depth of 100 to 140 feet below ground surface. The Raritan Formation, which consists of clay, silty clay, and clayey to silty fine sand, exhibits hydraulic conductivity less than 10^{-6} cm/s and is recognized as a confining unit. The water table surface occurs in the Upper Glacial aquifer from approximately 10 to 60 feet below ground surface.

In general, natural groundwater flow in the aquifer is to the east and northeast. However, the large, off-site groundwater pump and treat system that has been operated since the mid-1990s as part of an effort to cleanup an overlapping petroleum groundwater contamination area has produced localized cones of depression.

The overall Site hydrogeology is being further explored through the OU1 RI/FS process.

SUMMARY OF ONGOING INVESTIGATIONS

Vapor Intrusion Description

The soil, soil gas, and groundwater at the Site are contaminated with CVOCs. CVOCs are a subset of volatile organic compounds (VOCs), which are substances that typically evaporate at room temperature. They can affect the indoor air of properties located in close proximity to contaminated areas by entering the indoor air of structures through small cracks, pipes or other points of entry. Soil vapor intrusion inside residential and commercial buildings is a major concern at the Site. VOCs are also commonly found in household products such as cleaning supplies, building products like paints and air fresheners. Therefore, sampling indoor air for the presence of Site-related contamination is a complicated process that involves sampling both the indoor air and the air beneath the structure over time. Common household sources of VOCs also need to be removed during testing so that the results can reliably reflect what may be entering the structure from the contaminated material beneath it, as opposed to from materials in the building.

The soil vapor intrusion sampling being conducted by EPA as part of the OU1 RI/FS is typically a three-day process, which can generally be described as follows, though slight modifications to this approach can be made on an as-needed basis:

- Day 1: EPA inspects the property for any potential sources of VOCs and temporarily stores any that are found. EPA then installs a sub-slab soil gas port, which involves drilling an approximately quarter-sized hole through the lowest level floor of a structure. Day 1 activities typically takes EPA between 1 and 1.5 hours to complete.
- Day 2: EPA returns to make sure the port is functioning properly and, assuming it is, places sampling devices throughout the lowest one or two levels of the property (typically, basement and first floor). These sampling devices need to be left in place to collect air passively for 24 hours for residential properties and at least 8 hours for non-residential properties. Day 2 activities typically take EPA about 1 hour to complete.
- Day 3: EPA returns to collect the air samplers, which typically takes less than 1 hour to complete.

WHAT IS NEEDED TO HAVE A COMPLETE VAPOR INTRUSION PATHWAY?

In order for the vapor intrusion pathway to be complete, there must be volatilization of Site-related contaminants from contaminated groundwater or other subsurface sources through the vadose (or unsaturated) zone to the soil vapor underneath a structure (i.e., sub-slab soil vapor). These contaminants can then migrate through the slab into indoor air. Contaminant vapors move from an area of higher concentration to an area of lower concentration. The vapor intrusion pathway is complete when Site-related contaminants migrate into indoor air where vapors may be inhaled.

Ideally, this sampling is conducted during the winter heating season, which runs from mid-November through March in the New York City area, because this is when the greatest potential for subsurface vapor intrusion is expected to occur.

The results of the sampling are evaluated through multiple lines of evidence to make recommendations on next steps. The potential recommendations may include (1) that the results clearly indicate that no action is required; (2) that the results are not clear and additional sampling is required; or (3) the results indicate that contamination from the soil, groundwater, and/or soil gas is entering or has the potential to enter the structure above Remedial Action Levels (further defined below) and, therefore, soil vapor mitigation in the structure is required.

The purpose of OU2 is to evaluate alternatives for addressing unacceptable risks associated with Site-related soil vapor intrusion when mitigation is required.

Current Status of Investigation

There are currently well over 1,000 properties within the preliminary Study Area for the Site that are at potentially impacted by vapor intrusion of Site-related contamination; the potential for vapor intrusion depends on multiple factors, including the condition of

the building itself and the level of contamination beneath and near a structure. As such, EPA's goal is to conduct vapor intrusion sampling at as many properties as possible within the Study Area. As part of this effort, EPA has been seeking consent for access to conduct the sampling while working closely with the community on outreach efforts to help increase awareness about the Site and encourage the public's overall willingness to provide access.

EPA began soil vapor intrusion sampling activities at the Site as part of OU1 in November 2022. As of December 2023, EPA has conducted vapor intrusion sampling and fully evaluated the results at 18 residential structures, 11 public housing buildings, and one public school. Out of these, EPA has determined that vapor mitigation is not needed at this time at any of the properties it has sampled, and that further monitoring should be conducted at three of the residential properties. In addition, in February and March 2024, EPA sampled 18 properties and will be evaluating the results, and will be conducting additional sampling in the future. NYSDEC did, however, identify 26 properties that they determined required the installation of sub-slab depressurization systems to mitigate risks from vapor intrusion when they were conducting work prior to the Site being designated as a Superfund site, and two that required the sealing of cracks/gaps. As such, EPA fully anticipates identifying additional properties that would require vapor intrusion mitigation during the ongoing OU1 RI/FS process.

EPA has recently completed an initial round of groundwater sampling at the Site. This sampling effort included surveying more than 370 existing groundwater monitoring wells and sampling 344 of these for CERCLA-related hazardous substances including VOCs, semi-volatile organic compounds, 1,4-dioxane, pesticides, polychlorinated biphenyls, metals, and per- and polyfluoroalkyl substances. Once the analytical results from the groundwater sampling are fully available, the data will be used to refine the extent of the preliminary Study Area, to determine the location of additional wells that need to be installed to fill in data gaps, and to help better determine areas where future vapor intrusion sampling should be conducted.

PRINCIPAL THREATS

Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. They include liquids and other highly mobile materials (*e.g.*, solvents) or materials having high concentrations of toxic compounds. A detailed explanation of principle threat wastes can be found in the information box, "What is a Principal Threat?" on this page.

WHAT IS A "PRINCIPAL THREAT?"

The NCP establishes an expectation that EPA will use treatment to address the principal threats posed by a site wherever practicable (NCP Section 300.430(a)(1)(iii)(A)). The "principal threat" concept is applied to the characterization of "source materials" at a Superfund site. A source material is material that includes or contains hazardous substances, pollutants, or contaminants that act as a reservoir for migration of contamination to groundwater, surface water, or air, or acts as a source for direct exposure. Contaminated groundwater generally is not considered a source material; however, non-aqueous phase liquids in groundwater may be viewed as source material. Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. A decision whether and how to treat these wastes is made on a site-specific basis through a detailed analysis of the alternatives using the nine remedy selection criteria. This analysis provides a basis for making a statutory finding that the remedy employs treatment as a principal element.

This response action does not address source materials constituting principal threat wastes because no such materials are part of this operable unit. The interim action that is being evaluated in this Proposed Plan solely addresses vapor intrusion of contaminants into structures from subsurface sources of contamination. Soil vapor is neither a source material nor a principal threat waste.

SUMMARY OF SITE RISKS

Human Health Risk Assessment

EPA conducted an expedited human health risk evaluation of the soil vapor intrusion exposure pathway

as part of the FFS for OU2 to estimate the risks associated with exposure to Site-related contaminants of potential concern (COPCs) in indoor air. The evaluation utilized data obtained by both NYSDEC and EPA.

The approach for the expedited risk evaluation consisted of comparing sub-slab soil vapor and indoor air concentrations against current, risk-based vapor intrusion screening levels (VISLs). Two residential properties previously assessed by NYSDEC, as well as one residential property assessed by EPA, were chosen for this evaluation. These properties were chosen because, based on a review of the data, they are representative of high-end exposure conditions.

Based on the results of the soil vapor intrusion sampling thus far, the primary Site-related COPCs associated with OU2 are currently PCE and TCE. As the OU1 RI/FS is still ongoing, it is possible that additional Site-related COPCs may be identified in the future, but the expedited risk evaluation focused on these two COPCs.

EPA recommends comparing the maximum detected sub-slab and indoor air results to the appropriate EPA VISLs for residential use based on a cancer risk of $1x10^{-6}$ or hazard quotient (HQ) of 1 when evaluating the VI pathway and determining potential risks. The results of these comparisons are provided below.

TCE: The concentration of TCE in the sub-slab at the residential properties that were evaluated ranged from 18 micrograms per meter cubed ($\mu g/m^3$) to 300 ug/m^3, and the concentration of TCE in the basement and/or first floor indoor air ranged from 0.549 $\mu g/m^3$ to 12 $\mu g/m^3$. The noncancer hazards associated with these concentrations ranged from an HQ <1 up to an HQ = 6, which exceeds the goal of protection of an HQ = 1. Cancer risks associated with exposure to TCE at the residential properties evaluated were all below $1x10^{-4}$. The HQ value and the significance of $1x10^{-4}$ are described in the information box on the next page entitled, "What is Human Health Risk and How is it Calculated?"

PCE: The concentration of PCE in the sub-slab at the residential properties that were evaluated ranged from 1,400 $\mu g/m^3$ to 4,200 $\mu g/m^3$, and the concentration of PCE in the basement and/or first floor indoor air ranged from 37 $\mu g/m^3$ to 170 $\mu g/m^3$. The noncancer hazards associated with these concentrations ranged from an

WHAT IS RISK AND HOW IS IT CALCULATED?

A Superfund baseline human health risk assessment is an analysis of the potential adverse health effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these releases under current- and anticipated future-land uses. A four-step process is utilized for assessing site-related human health risks for reasonable maximum exposure scenarios.

Hazard Identification: In this step, the chemicals of potential concern (COPCs) at the site in various media (*i.e.*, soil, groundwater, surface water, and air) are identified based on such factors as toxicity, frequency of occurrence, and fate and transport of the contaminants in the environment, concentrations of the contaminants in specific media, mobility, persistence, and bioaccumulation.

Exposure Assessment: In this step, the different exposure pathways through which people might be exposed to the contaminants identified in the previous step are evaluated. Examples of exposure pathways include incidental ingestion of and dermal contact with contaminated soil and ingestion of and dermal contact with contaminated groundwater. Factors relating to the exposure assessment include, but are not limited to, the concentrations in specific media that people might be exposed to and the frequency and duration of that exposure. Using these factors, a "reasonable maximum exposure" scenario that portrays the highest level of human exposure that could reasonably be expected to occur is calculated.

Toxicity Assessment: In this step, the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure and severity of adverse effects are determined. Potential health effects are chemical-specific and may include the risk of developing cancer over a lifetime or other non-cancer health hazards, such as changes in the normal functions of organs within the body (*e.g.*, changes in the effectiveness of the immune system). Some chemicals are capable of causing both cancer and non-cancer health hazards.

Risk Characterization: This step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site risks for all COPCs. Exposures are evaluated based on the potential risk of developing cancer and the potential for non-cancer health hazards. The likelihood of an individual developing cancer is expressed as a probability. For example, a 10^{-4} cancer risk means a "one-in-ten-thousand excess cancer risk"; or one additional cancer may be seen in a population of 10,000 people as a result of exposure to site contaminants under the conditions identified in the Exposure Assessment. Current Superfund regulations for exposures identify the range for determining whether remedial action is necessary as an individual excess lifetime cancer risk of 10^{-4} to 10^{-6}, corresponding to a one-in-ten-thousand to a one-in-a-million excess cancer risk. For non-cancer health effects, a "hazard index" (HI) is calculated. The key concept for a non-cancer HI is that a "threshold" (measured as an HI of less than or equal to 1) exists below which non-cancer health hazards are not expected to occur. The goal of protection is 10^{-6} for cancer risk and an HI of 1 for a noncancer health hazard. Chemicals that exceed a 10^{-4} cancer risk or an HI of 1 are typically those that will require remedial action at a site and are referred to as chemicals of concern, or COCs, in the final remedial decision document or Record of Decision.

HQ <1 up to an HQ = 4, which exceeds the goal of protection of an HQ = 1. Cancer risks associated with exposure to PCE at the residential properties evaluated were all below $1x10^{-4}$.

TCE and PCE are considered the contaminants of concern (COCs) for OU2.

Ecological Risk Assessment

The first step in an ecological risk assessment is to evaluate completed exposure pathways for ecological receptors. For OU2, there are no completed ecological exposure pathways, as the focus of this operable unit is centered on vapor intrusion into buildings. As such, an ecological risk assessment was not performed as part of the OU2 evaluation process.

Conclusion

Based on the results of the expedited human health risk evaluation, a remedial action is necessary to protect public health, welfare, and the environment from actual or threatened releases of hazardous substances.

It is EPA's judgment that the preferred alternative summarized in this Proposed Plan is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards such as Applicable or Relevant and Appropriate Requirements (ARARs), to-be-considered (TBC) advisories, criteria, and guidance, and site-specific risk-based levels, if applicable. The primary objective of any remedial strategy is overall protectiveness.

The following RAOs have been established for OU2 to address soil vapor intrusion risks at the Site:

- Prevent exposure by current and future occupants to Site-related PCE and TCE-contaminated vapors within structures that would result in a noncancer hazard index greater than 1.
- Prevent the migration of contaminated subsurface vapors into the indoor air of structures from Site-related PCE and TCE in soil and/or groundwater above remedial action levels based on current and reasonably anticipated future land use.

REMEDIAL ACTION LEVELS

To achieve the RAOs, EPA has identified the following Remedial Action Levels (RALs)[1] for TCE and PCE:

COC	Residential Remedial Action Levels ($\mu g/m^3$)		Commercial / Industrial Remedial Action Levels[2] ($\mu g/m^3$)	
	Indoor Air	Sub- slab	Indoor Air	Sub-slab
TCE	2.1	70	8.8	290
PCE	42	1,400	180	5,800

The RALs represent current EPA VISLs set at a target HQ = 1, which falls midway between EPA's cancer risk range of $1x10^{-6}$ to $1x10^{-4}$.

These RALs will be considered with other Site-specific lines of evidence such as subsurface geology and hydrogeology, the structural characteristics of each building, and proximity to other impacted structures in determining whether there is a need for remedial action. The need for remedial action will also be determined in consultation with NYSDEC and the New York State Department of Health (NYSDOH), including consideration of NYSDOH's Guidance for Evaluating Soil Vapor Intrusion in New York State.

SUMMARY OF REMEDIAL ALTERNATIVES

Section 121(b)(1) of CERCLA, 42 U.S.C. § 9621(b)(1), mandates that remedial actions must be protective of human health and the environment, be cost-effective,

[1] Consistent with EPA's Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway (OSWER 9200.2-154, 2015), the RALs are developed assuming an attenuation factor from sub-slab to indoor air of 33.

[2] The commercial/industrial RALs assume an eight-hour workday, which is protective of most non-residential settings and can be adjusted as needed to account for property-specific conditions.

comply with ARARs, and utilize permanent solutions, alternative treatment technologies, and resource recovery alternatives to the maximum extent practicable. Section 121(b)(1) of CERCLA also establishes a preference for remedial actions that employ, as a principal element, treatment to reduce permanently and significantly the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants at a site. Section 121(d) of CERCLA, 42 U.S.C. § 9621(d), further specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants, and contaminants that at least attains ARARs under federal and state laws, unless a waiver can be justified pursuant to Section 121(d)(4) of CERCLA, 42 U.S.C. § 9621(d)(4).

Descriptions of the remedial alternatives considered to address vapor intrusion impacts resulting from Site-related contamination are provided below. More detail can be found in the FFS report prepared for OU2.

The construction time for each alternative does not include the time required to design the remedy, negotiate the performance of the remedy with any potentially responsible parties, or procure necessary contracts.

Alternative 1 - No Action

The NCP requires that a "No Action" alternative be evaluated to establish a baseline for comparison with other remedial alternatives. Under this alternative, no action would be taken with regard to addressing vapor intrusion at the Site.

Total Capital Cost:	*$0*
Total O&M:	*$0*
Total Cost:	*$0*
Construction Time:	*0 years*

Alternative 2 - Vapor Intrusion Mitigation

Under this alternative, vapor intrusion mitigation would be implemented at structures where EPA determines that, based on multiple lines of evidence, vapor intrusion of the COCs is occurring at concentrations that exceed the RALs. The goal of vapor intrusion mitigation would be to prevent contaminated soil vapors from entering and/or accumulating in structures at concentrations that represent a threat, or a potential threat, to human health. The potential for vapor intrusion to occur at a particular structure is dependent upon several factors, including subsurface geology and hydrogeology, the structural characteristics of the building, and proximity to other impacted structures or sources. Different impacted structures may therefore require different vapor mitigation strategies based on factors such as age of the building and construction type, the depth to groundwater beneath a structure, etc. For the purposes of the cost estimate, the mitigation actions include sealing cracks and gaps in the slab, installing a concrete slab or comparable membrane system in instances where only a dirt floor is present, and installing active sub-slab depressurization mitigation systems for a projected number of 100 properties, which is approximately 10 percent of the properties within the interim Study Area.

The cost estimate reflects the estimated costs for mitigation in the event that an estimated 100 structures within the Study Area are found to require vapor mitigation as a result of sampling and the other lines of evidence described above. The cost estimate also takes into consideration other factors including costs for addressing basements and crawl spaces without any existing concrete floor, as well as larger multi-unit structures that would require more depressurization points than smaller structures. The cost estimate also reflects one year of estimated costs for operation and maintenance (O&M) of sub-slab depressurization mitigation systems to ensure the systems are operating properly for the estimated 100 properties. The sampling and mitigation is expected to occur on a rolling basis over a period of five years. If it is determined that a property requires a sub-slab depressurization system, EPA will work with the owner to arrange for the installation of the system. Construction can be completed in as little as one day, and it can take up to one week or longer for the installation of larger commercial systems. The time required for the construction is dependent on property owners providing access.

The specific details and cost of the mitigation system for any particular building would be determined during remedial design.

Total Capital Cost:	*$1,124,000*
Total O&M:	*$21,200*
Total Cost:	*$1,145,200*
Construction Time:	*5 years*

EVALUATION OF ALTERNATIVES

In evaluating the remedial alternatives, EPA considers the following nine evaluation criteria set forth in the NCP: overall protection of human health and the environment; compliance with ARARs; long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; cost; and state and community acceptance. Refer to the table below for a more detailed description of the evaluation criteria.

This section of the Proposed Plan summarizes the evaluation of the relative performance of each alternative against the nine criteria, noting how each compare to the others under consideration. A detailed analysis of alternatives can be found in the FFS.

Overall Protection of Human Health and the Environment

A threshold requirement of CERCLA is that the selected remedial action be protective of human health and the environment. An alternative is protective if it reduces current and potential future risk associated with each exposure pathway at a site to acceptable levels.

Alternative 1 (No Action) would not meet the RAOs and would not be protective of human health and the environment since no action would be taken.

Alternative 2 (Vapor Intrusion Mitigation) would control exposure to Site-related contaminants from vapor intrusion into residential and non-residential structures. Contaminated sub-slab vapor would be prevented from entering and/or accumulating in buildings at concentrations that represent a potential threat to human health. Therefore, when implemented at impacted buildings, Alternative 2 would be protective of human health and the environment.

Compliance with Applicable or Relevant and Appropriate Requirements

In accordance with the NCP (40 CFR § 300.430(f)(l)(ii)(c)(l)), interim actions such as this are not required to comply with ARARs as long as the final remedial action at the Site will attain them. Consequently, no ARARs have been identified for this interim action.

EVALUATION CRITERIA FOR SUPERFUND REMEDIAL ALTERNATIVES

Overall Protectiveness of Human Health and the Environment evaluates whether and how an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) evaluates whether the alternative meets federal and state environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.

Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, the community, and the environment during implementation.

Implementability considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

Cost includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

State/Support Agency Acceptance considers whether the State agrees with the EPA's analyses and recommendations, as described in the RI/FS and Proposed Plan.

Community Acceptance considers whether the local community agrees with EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

Long-Term Effectiveness and Permanence

Alternative 1 would involve no active remedial measures and, therefore, would not be effective in eliminating the potential exposure to contaminants. Alternative 2 would be effective in the long term. Previously installed vapor mitigation systems at other structures in the area have demonstrated effectiveness in addressing vapor intrusion concerns. Long-term effectiveness of the vapor intrusion mitigation systems would be provided by establishing and implementing O&M procedures to ensure that the systems continue to

mitigate the potential threat to human health posed by vapor intrusion at impacted structures at the Site.

Reduction of Toxicity, Mobility, Volume of Contamination through Treatment

Alternatives 1 and 2 would provide no reduction in toxicity, mobility, or volume. However, under Alternative 2, Site-related contaminants in vapor form would be prevented from entering into buildings at concentrations that represent a potential threat to human health.

Short-Term Effectiveness

Alternative 1 does not involve any active construction activities that could present a risk to workers or the public.

Implementation of Alternative 2 would not be expected to result in short-term risks to the community, the workers installing the vapor intrusion mitigation systems, or the environment in general. Any potential threats to the workers from inhaling hazardous substances in vapor form during system installation would be minimized with the implementation of appropriate health and safety measures.

As for short term impacts, no time is required for construction of Alternative 1. Under Alternative 2, the installation of sub-slab depressurization systems can be completed in as little as one day and it can take up to one week for the installation of larger commercial systems. While, for planning purposes, it is estimated that Alternative 2 may take up to five years to install the estimated 100 systems to address vapor intrusion concerns within the Study Area, this would not, however, be a continuous five years of effort. Rather, the installations would happen as the need is determined through the ongoing OU1 RI/FS process.

Implementability

Alternative 1 does not involve the application of any technology, therefore, there are no issues relating to feasibility of implementation.

Alternative 2 is considered to be readily implementable. The installation of vapor mitigation systems under Alternative 2 would use readily available services and equipment. Such systems have already been installed at other buildings in the area and have shown to be reliable and effective in addressing vapor intrusion and mitigating exposures.

Cost

There is no cost associated with Alternative 1 because no activities are implemented.

The estimated cost of Alternative 2 was developed as a range of costs because the total number of residential versus non-residential buildings that require vapor mitigation is not currently known. In addition, the actual costs could vary depending on the particular building and would be determined during design. The estimated total cost includes capital costs and O&M costs for one year to ensure the system is operating properly. After one year, O&M of the vapor mitigation system is turned over to the State.

Note that Alternative 2 provides for the potentiality of designing, installing, and maintaining vapor mitigation systems, but it does not address the electricity costs to operate the vapor mitigation system. The operating costs for these systems are minimal, similar to costs to operate radon mitigation systems, and they would be the responsibility of the property owner.

The estimated total cost for Alternative 2 is $1,145,200.

State Acceptance

NYSDEC concurs with EPA's preferred alternative.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated after the public comment period ends and will be described in the Responsiveness Summary section of the ROD. Based on public comment, the preferred alternative could be modified from the version presented in this Proposed Plan.

PREFERRED REMEDY AND BASIS FOR PREFERENCE

Based upon an evaluation of the remedial alternatives, EPA, with the concurrence of NYSDEC, proposes Alternative 2, Vapor Intrusion Mitigation. Vapor intrusion mitigation would be implemented at residential and non-residential structures at the Site where multiple lines of evidence indicate that vapor

intrusion is occurring at concentrations that represent a threat or a potential threat to human health.

The potential for vapor intrusion to occur at a particular structure is dependent upon several factors, including subsurface geology and hydrogeology, the structural characteristics of each building, and proximity to other impacted structures or sources. Different impacted structures may therefore require different vapor mitigation strategies based on factors such as the age of the building and construction type, the depth to groundwater beneath a structure, etc. As such, the preferred alternative has the following key components, some or all of which may be used at any particular property: the installation of sub-slab mitigation systems; engineering measures such as the sealing of cracks and gaps in the lowest level slab of a structure; the installation of a concrete slab or comparable membrane system in instances where only a dirt floor is present; and one year of O&M. This alternative has the estimated total cost of $1,145,200.

Basis for the Remedy Preference

Alternative 2 (Vapor Intrusion Mitigation) is the preferred alternative because it meets the threshold criteria to protect human health and the environment by preventing contaminants of concern from entering indoor air at levels that pose an unacceptable risk. The exact number of residential properties to be remediated will be determined upon completion of additional vapor intrusion sampling during the ongoing OU1 RI/FS. Based upon the information currently available, EPA believes the preferred alternative meets the threshold criteria and provides the best balance of tradeoffs compared to the other alternative with respect to the balancing and modifying criteria set forth in the NCP. The preferred alternative is considered protective of human health and the environment in the short-term until a final remedy is implemented for the Site. Although this interim action is not intended to address fully the statutory mandates, the preferred alternative, if implemented, would satisfy the statutory requirements of Section 121(b) of CERCLA, namely being (1) protective of human health and the environment and (2) cost effective. EPA expects the final remedy for the site will fully satisfy the statutory requirements. The preferred alternative would be readily implementable using technologies proven to be effective at this Site, as well as similar sites. The short-term effects of the preferred alternative include potential impacts to workers, but these could be mitigated using appropriate health and safety measures.

The preferred alternative does not satisfy the preference for treatment because vapor intrusion mitigation systems do not treat the subsurface vapor source, and treatment of groundwater and/or soil gas is outside the scope of this interim action. The environmental benefits of the preferred alternative may be enhanced by consideration, during the design, of technologies and practices that are sustainable in accordance with both the EPA Region 2's Clean and Green Energy Policy and NYSDEC's Green Remediation Policy[3]. This would include consideration of green remediation technologies and practices.

With respect to the two modifying criteria of the comparative analysis, which are state acceptance and community acceptance, NYSDEC concurs with the preferred alternative and community acceptance will be evaluated upon the close of the public comment period.

COMMUNITY PARTICIPATION

EPA provides information regarding the cleanup of the Site to the public through meetings and announcements published in the local newspaper. EPA and NYSDEC encourage the public to gain a more comprehensive understanding of the Site and the Superfund activities that are being conducted there. The interim remedy for the Site will be selected after reviewing and considering all information submitted during a 30-day public comment period.

The dates for the public comment period, the date, location, and time of the public meeting, and the locations of the Administrative Record files are provided on the front page of this Proposed Plan.

[3] See http://www.epa.gov/greenercleanups/epa-region-2-cleanand-green-policy and http://www.dec.ny.gov/docs/remediation_hudson_pdf/der31.pdf

FOR FURTHER INFORMATION
The administrative record file, which contains copies of the Proposed Plan and supporting documentation, is available at the following locations:

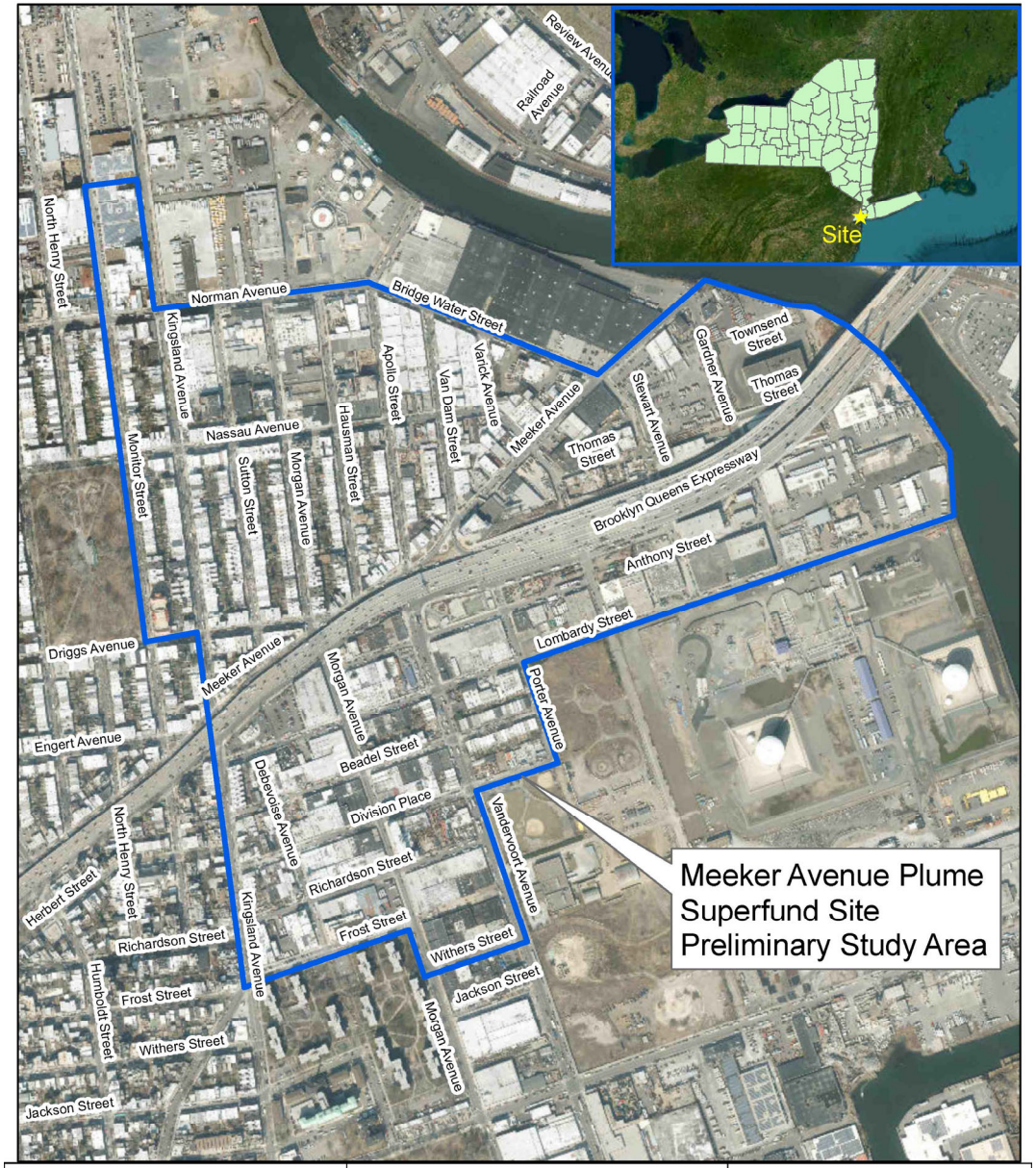
EPA Region 2 Superfund Records Center
290 Broadway, 18th Floor
New York, New York 10007-1866
(212) 637-4308
Hours: Monday-Friday – 9 A.M. to 5 P.M.

Brooklyn
Greenpoint Public Library
107 Norman Avenue
Brooklyn, New York 11222
Hours:
Monday, Wednesday, Friday – 10 A.M. To 6 P.M.
Tuesday – 1 P.M. to 8 P.M.
Thursday – 10 A.M. to 8 P.M.
Saturday – 10 A.M. to 5 P.M.
Sunday -- Closed

In addition, the administrative record file is available on-line at:

https://www.epa.gov/superfund/meeker-avenue-plume

Figure 1 - Site Location Map



APPENDIX V

RESPONSIVENESS SUMMARY
Attachment C- Public Notice

enter the field should move soon, as entry barriers aren't overly prohibitive.

"If you look at the descriptions for A.I. job postings, many of the roles are still very exploratory, alluding to building or testing new products," ZipRecruiter chief economist Julia Pollak told CNBC in December. "A lot of companies still don't seem to know how best to harness these tools in their businesses and are still hiring people who can help them figure it out and decide if they should make a long-term investment in A.I. talent."

Keep Hustling

In this era of personal life and wellness prioritization, employees need more than a paycheck. Last year, a majority of Americans earning six-figure salaries lived paycheck-to-paycheck. Plenty of potentially lucrative side hustles are available for the currently employed seeking supplemental income. Such activities include leveraging existing assets, like hosting on Airbnb, renting out tools or equipment, and loaning vehicles.

Alternatively, such gigs could require labor application, whether delivering food, cleaning houses, or mowing lawns. Have a strategy when kick-starting side hustles and ensure their sustainability as profitable, long-term undertakings.

Ample opportunities pepper the present U.S. labor market. Employers in fast-growing industries, namely tech, finance, and healthcare organizations, are desperate for solid staff.

Whether pursuing side hustles, online entrepreneurship, or entering a new field, this year could be a decisive opportunity for millions of Americans to pursue new career aspirations

METROPOLIS LENDERS LLC. ARTICLES OF ORGANIZATION FILED WITH SECRETARY OF STATE OF NEW YORK (SSNY) ON 3/11/2024. NY OFFICE LOCATION: KINGS COUNTY. SSNY HAS BEEN DESIGNATED AS AGENT OF THE LLC UPON WHOM PROCESS AGAINST IT MAY BE SERVED. THE POST OFFICE ADDRESS TO WHICH THE SSNY SHALL MAIL A COPY OF ANY PROCESS AGAINST THE LLC SERVED UPON HIM/HER IS ZENBUSINESS INC. 41 STATE STREET, SUITE 112 ALBANY, NY, 12207. PURPOSE/CHARACTER OF LLC: ANY LAWFUL PURPOSE.

#215791

(SSNY) ON 3/12/2024. NY OFFICE LOCATION: KINGS COUNTY. SSNY HAS BEEN DESIGNATED AS AGENT OF THE LLC UPON WHOM PROCESS AGAINST IT MAY BE SERVED. THE POST OFFICE ADDRESS TO WHICH THE SSNY SHALL MAIL A COPY OF ANY PROCESS AGAINST THE LLC SERVED UPON HIM/HER IS ZENBUSINESS INC. 41 STATE STREET, SUITE 112 ALBANY, NY, 12207. PURPOSE/CHARACTER OF LLC: ANY LAWFUL PURPOSE.

#215795

(SSNY) ON 3/20/2024. NY OFFICE LOCATION: KINGS COUNTY. SSNY HAS BEEN DESIGNATED AS AGENT OF THE LLC UPON WHOM PROCESS AGAINST IT MAY BE SERVED. THE POST OFFICE ADDRESS TO WHICH THE SSNY SHALL MAIL A COPY OF ANY PROCESS AGAINST THE LLC SERVED UPON HIM/HER IS ZENBUSINESS INC. 41 STATE STREET, SUITE 112 ALBANY, NY, 12207. PURPOSE/CHARACTER OF LLC: ANY LAWFUL PURPOSE.

#216022

OF NEW YORK (SSNY) ON 1/30/2024. NY OFFICE LOCATION: SUFFOLK COUNTY. SSNY HAS BEEN DESIGNATED AS AGENT OF THE LLC UPON WHOM PROCESS AGAINST IT MAY BE SERVED. THE POST OFFICE ADDRESS TO WHICH THE SSNY SHALL MAIL A COPY OF ANY PROCESS AGAINST THE LLC SERVED UPON HIM/HER IS ROCKET CORPORATE SERVICES INC. 2804 GATEWAY OAKS DR. #100, SACRAMENTO, CA, 95833. PURPOSE/CHARACTER OF LLC: ANY LAWFUL PURPOSE.

#216019

EPA United States Environmental Protection Agency

EPA INVITES PUBLIC COMMENT ON THE PROPOSED CLEANUP PLAN FOR THE MEEKER AVENUE PLUME SUPERFUND SITE IN BROOKLYN, NEW YORK

The U.S. Environmental Protection Agency (EPA) is asking the public for input on its proposed cleanup plan to address the potential vapors that may be entering into residential and commercial buildings at the Meeker Avenue Plume Superfund site in Brooklyn, New York.

The EPA is accepting comments from the public on the proposed cleanup plan for this site from **Friday April 05, 2024** to **Friday May 10, 2024**. The EPA will consider comments submitted during the comment period before making a final decision. The public is encouraged to review the plan, attend the public meeting, and comment on the proposed cleanup alternative. Comments may be emailed to *ketu.rupika@epa.gov* or mailed to Rupika Ketu, US EPA, 290 Broadway, 18th Floor, New York, NY 10007-1866 no later than **May 10th, 2024.**

The EPA will hold an in-person public meeting to discuss the proposed cleanup plan on **April 16th, 2024** at 6:00 p.m. at St. Stanislaus Kostka Lower Church, 607 Humboldt St, Brooklyn, NY. For more information, please contact EPA's Community Involvement Coordinator, Anna Drabek at *drabek.anna@epa.gov* or visit *https://www.epa.gov/superfund/meeker-avenue-plume.*

The "Public Place" site off the Gowanus Canal as it looked like in 2019.

Eagle file photo by Lore Croghan

The Gowanus Canal borders Gowanus Green on one end and defines the neighborhood for many people. Eagle file photo by Rob Abruzzese

Community Board 6 wanted all of Gowanus Green to be affordable. Based on the latest literature from the developers that describes the planned development as being "100 % affordable," it looks like the board won that point.

Gowanus Green has been in the works since 2008, as evidenced by a city document, issued that November, called "Gowanus Green Draft Scope of work for an Environmental Impact Statement."

The Gowanus neighborhood itself is surrounded by Carroll Gardens, Boerum Hill and Park Slope, and is within walking distance of Downtown Brooklyn. At one time much of Gowanus was an industrial area, but residential development has increased in the recent past since plans to clean up the Gowanus Canal were announced.

Średnia cena benzyny

(ceny benzyny REGULAR i zmiana w dolarach od ub. tygodnia)

USA	**3,630**	⇧ + 0,063
Nowy Jork	**3,442**	⇧ + 0,041
Baryłka ropy	**85,64**	⇩ - 0,95

Stacje benzynowe

(przykładowe ceny w różnych miastach New Jersey)

Bronx - **B&G Services** **3,19⁹**
1243 E. Tremont Ave.

Staten Island - **Mobil** **3,23⁹**
1774 Victory Blvd.

Brooklyn - **BP** **3,29⁹**
765 Pennsylvania Ave.

Manhattan - **Shell** **3,69⁹**
1599 Lexington Ave.

Ceny z dnia: 11 IV 2024 r., godz. 4 pm

PRZEGLĄD TYGODNIA

Trudno powiedzieć czy do rozejmu w ogóle dojdzie, gdyż Izrael przeprowadził atak, w którym zginęli trzej synowie lidera Hamasu, Ismaila Hanijji, na stałe rezydującego w Katarze. Bracia Hazem, Ameer i Mohammed Hanijja zginęli po tym, jak samochód, którym jechali, został zbombardowany w pobliżu obozu dla uchodźców w Strefie Gazy.

◆Według prezydenta Ukrainy Wołodymyra Zełenskiego, były prezydent USA Donald Trump wyraził chęć odwiedzenia Ukrainy, ale nie wie, kiedy będzie mógł przybyć. Ukraina znajduje się w najgorszym kryzysie od czasu rosyjskiej inwazji w lutym 2022 roku: siłom zbrojnym kończy się amunicja, a obrona powietrzna nie jest już w stanie odpierać rosyjskich ataków. Są też problemy z rekrutacją nowych żołnierzy do ukraińskiej armii. Tymczasem Moskwa intensyfikuje naloty bombowe na ukraińskie miasta, mówi się o nowej dużej ofensywie na Charków. Prawdopodobnie jest to jeden z powodów, dla których Zełenski skontaktował się z Donaldem Trumpem, republikańskim kandydatem na prezydenta. To on blokuje pakiet pomocowy. "Sam do niego nie dzwoniłem. Zaprosiliśmy go na Ukrainę zarówno publicznie, jak i niepublicznie" - powiedział Zełenski. Zaproszenie Trumpa do Kijowa może mieć też związek z "tajnym planem" Donalda Trumpa na zakończenie wojny na Ukrainie. Według "Washington Post", plan Donalda Trumpa polega na wywarciu presji na Kijów, by oddać Rosji Donbas i Krym. Według byłego prezydenta Stanów Zjednoczonych, mieszkańcy tej części Ukrainy nie mieliby nic przeciwko życiu pod rządami Federacji Rosyjskiej.

◆Prezydent USA Joe Biden powiedział, że rozważa wniosek Australii o zaprzestanie ścigania założyciela Wikileaks, Juliana Assange'a, co trwa już od dekady. Australia od lat wzywa USA o wycofanie oskarżenia przeciwko Assange'owi, obywatelowi Australii, który przebywa obecnie w brytyjskim areszcie i walczy przed miejscowym wymiarem sprawiedliwości o uniknięcie ekstradycji do USA. Assange'owi postawiono formalnie w USA 17 zarzutów o szpiegostwo i jeden zarzut niewłaściwego użycia komputera w związku z publikacją na jego stronie internetowej zbioru tajnych dokumentów prawie 15 lat temu. Amerykańscy prokuratorzy utrzymują, że 52-letni Assange zachęcał i pomagał oficerowi wywiadu wojskowego USA, w celu wykradzenia treści depesz dyplomatycznych i dokumentów amerykańskich sił zbrojnych, które następnie były publikowane na portalu WikiLeaks.

◆Minister spraw zagranicznych Rosji Siergiej Ławrow odbył dwudniową wizytę w Pekinie, gdzie spotkał się ze swoim chińskim odpowiednikiem Wang Yi. Jak zapewnia Ławrow: "Więzi między Rosją a Chinami osiągnęły bezprecedensowy poziom dzięki przywódcom tych krajów". Szef MSZ Rosji podkreślił, że "Rosja i Chiny będą nadal współpracować w walce z terroryzmem w ramach stale zacieśniających się relacji".

◆Do biblioteki w Fort Collins, w stanie Kolorado, zwrócono powieść, którą czytelnik powinien był oddać najpóźniej 13 lutego 1919 roku. Książka - powieść historyczna "Ivenhoe" Waltera Scotta - zawędrowała z wypożyczalni w Kolorado aż do Kansas, gdzie została ostatnio odnaleziona w rzeczach po zmarłej starszej pani. Gdyby biblioteka nadal pobierała opłaty za przetrzymane książki (wynosiły one 2 centy za każdy dzień) czytelnik winny spóźnieniu o ponad 38 tysięcy dni musiałby zapłacić około 760 dolarów. Gdyby jednak stawki uwzględniały wpływ inflacji, kara powinna przekroczyć 14 tysięcy dolarów. W 1919 roku bilet do kina kosztował 15 centów, nowy samochód marki Chevrolet - 525 dolarów, a przeciętny dochód amerykańskiego gospodarstwa domowego wynosił niespełna 3,3 tysiąca dolarów rocznie. Na szczęście biblioteka zrezygnowała przed czterema laty z wyciągania poważnych konsekwencji finansowych wobec spóźnialskich czytelników (w tym wypadku przetrzymanie wyniosło 105 lat).

◆Sąd stanowy w Michigan skazał Jamesa i Jennifer Crumbley'ów na karę 10-15 lat więzienia za nieumyślne spowodowanie śmierci w związku z zabiciem przez ich 15-letniego syna Ethana czterech szkolnych kolegów w 2021 roku. Ogłaszając wyrok, prowadząca proces sędzia Cheryl Matthews oznajmiła, że wysoki wymiar kary w pierwszym procesie tego typu w Stanach Zjednoczonych ma służyć jako czynnik odstraszający dla innych rodziców, ignorujących problemy psychiczne swoich dzieci. Sędzia Matthews zaznaczyła, że rodzice otrzymali wiele sygnałów alarmowych dotyczących ich syna, lecz żadne z rodziców odpowiednio nie zareagowało.

◆W niedzielę, 7 kwietnia 2024 roku, pokrywa silnika samolotu Boeing 737-800 linii lotniczych Southwest Airlines odpadła podczas startu z lotniska w Denver. Maszyna zawróciła i bezpiecznie wylądowała na lotnisku, nikt nie ucierpiał. Federalna Administracja Lotnictwa (FAA) wszczęła śledztwo. Samolot ze 135 pasażerami i sześcioma członkami załogi na pokładzie miał lecieć do Houston. Maszyna została wyprodukowana w 2015 roku. To kolejny incydent samolotów Boeinga w ostatnich miesiącach. Wcześniej informowano o licznych awariach modeli rodziny 737-MAX. W dniu 5 stycznia 2024 roku, w nowym samolocie Boeing 737-MAX 9 linii Alaska Airlines, podczas lotu odpadły drzwi ewakuacyjne.

◆Na miesiąc więzienia oraz trzy miesiące aresztu domowego skazano mieszkankę Florydy, Aimee Harris, za to, że w 2020 roku ukradła pamiętnik córki prezydenta Bidena, Ashley. Harris sprzedała pamiętnik córki prezydenta za kilkadziesiąt tysięcy dolarów, organizacji Project Veritas, specjalizującej się w zbieraniu kompromitujących materiałów na amerykańskich polityków, urzędników i działaczy, związanych z demokratami. W sądzie stwierdzono, że Harris najpierw próbowała sprzedać pamiętnik komitetowi wyborczemu Donalda Trumpa w 2020 roku, ale bezskutecznie.

◆Nie żyje polska lekarka z Long Island w Nowym Jorku. Doktor Monika Woroniecka zginęła w wypadku na drodze stanowej 12E w Watertown. 58-latka wypadła z ciągniętej przez samochód przyczepy kempingowej na oczach swojej córki i jej chłopaka. Rodzina była w drodze na kemping, z którego razem mieli obserwować poniedziałkowe zaćmienie Słońca. Monika Woroniecka znajdowała się w przyczepie Airstream, ciągniętej przez Dodge'a Rama, prowadzonego przez jej męża, kiedy nagły podmuch wiatru spowodował otwarcie drzwi przyczepy. Motocykliści, którzy jechali za nimi, stwierdzili, że widzieli otwarte drzwi na boku przyczepy oraz rękę Moniki Woronieckiej, sięgającą klamki.

ciąg dalszy na str. 4

EPA United States Environmental Protection Agency

EPA ZAPRASZA MIESZKAŃCÓW DO ZGŁASZANIA UWAG NA TEMAT PROPONOWANEGO PLANU OCZYSZCZANIA DOTYCZĄCEGO OBSZARU ZANIECZYSZCZEŃ MEEKER AVENUE PLUME, OBJĘTEGO PROGRAMEM SUPERFUND, W DZIELNICY BROOKLYN, W NOWYM JORKU

Amerykańska Agencja Ochrony Środowiska (Environmental Protection Agency, EPA) zwraca się do mieszkańców o wyrażenie opinii na temat proponowanego przez nią planu oczyszczania dotyczącego potencjalnych oparów, które mogą przedostawać się do budynków mieszkalnych i komercyjnych, znajdujących się na obszarze zanieczyszczeń Meeker Avenue Plume, objętym programem Superfund, w dzielnicy Brooklyn w Nowym Jorku.

EPA przyjmuje uwagi mieszkańców na temat proponowanego planu oczyszczania tego obszaru od piątku, 5 kwietnia 2024 r. do wtorku, 11 czerwca 2024 r. Przed podjęciem ostatecznej decyzji EPA uwzględni uwagi zgłoszone w wyznaczonym okresie. Zachęcamy mieszkańców do zapoznania się z planem, wzięcia udziału w spotkaniu publicznym i zgłaszania uwag na temat proponowanej opcji oczyszczania. Uwagi można wysłać emailem na adres ***ketu.rupika@epa.gov*** lub pocztą do Rupika Ketu, US EPA, 290 Broadway, 18th Floor, New York, NY 10007-1866, najpóźniej do 10 maja 2024 r.

W dniu **16 kwietnia 2024 r. o godzinie 6pm** EPA zorganizuje stacjonarne spotkanie publiczne w celu omówienia proponowanego planu oczyszczania. Spotkanie odbędzie się w **dolnym Kościele św. Stanisława Kostki przy 607 Humboldt Street, Brooklyn, NY**. W celu uzyskania bardziej szczegółowych informacji należy skontaktować się z Anną Drabek, koordynatorem EPA ds. zaangażowania społeczności, pod adresem ***drabek.anna@epa.gov*** lub wejść na stronę ***https://www.epa.gov/superfund/meeker-avenue-plume***.

EPA United States Environmental Protection Agency

EPA ZAPRASZA MIESZKAŃCÓW DO ZGŁASZANIA UWAG NA TEMAT PROPONOWANEGO PLANU OCZYSZCZANIA DOTYCZĄCEGO OBSZARU ZANIECZYSZCZEŃ MEEKER AVENUE PLUME, OBJĘTEGO PROGRAMEM SUPERFUND, W DZIELNICY BROOKLYN, W NOWYM JORKU

Amerykańska Agencja Ochrony Środowiska (Environmental Protection Agency, EPA) zwraca się do mieszkańców o wyrażenie opinii na temat proponowanego przez nią planu oczyszczania dotyczącego potencjalnych oparów, które mogą przedostawać się do budynków mieszkalnych i komercyjnych, znajdujących się na obszarze zanieczyszczeń Meeker Avenue Plume, objętym programem Superfund, w dzielnicy Brooklyn, w Nowym Jorku.

EPA przedłużyła okres zgłaszania uwag i przyjmuje uwagi mieszkańców na temat proponowanego planu oczyszczania tego obszaru do wtorku, 25 czerwca 2024 r. Przed podjęciem ostatecznej decyzji EPA uwzględni uwagi zgłoszone w wyznaczonym okresie. Zachęcamy mieszkańców do zapoznania się z planem i do zgłaszania uwag na temat proponowanej opcji oczyszczania. Uwagi można wysłać emailem na adres ***ketu.rupika@epa.gov*** lub pocztą do Rupika Ketu, US EPA, 290 Broadway, 18th Floor, New York, NY 10007-1866, najpóźniej do **25 czerwca 2024 r.**

- zatrudnimy osobę do dyspozytorni, konieczna znajomość księgowości, prowadzenia biura, logistyki i obsługi zleceń w branży transportowej, praca na cały etat (z domu), wymagany biegły język angielski i dobra organizacja pracy, stałe wynagrodzenie plus bonusy. Tel.: (347) 225-7078
- looking for a seamstress with experience to work on wedding dress alterations in Manhattan. Call: (212) 764-1701
- zatrudnię stolarza, z bardzo dobrym doświadczeniem, do produkcji i instalacji mebli na zamówienie, dobre wynagrodzenie, praca na czek rozliczeniowy. Tel.: (718) 344-0535
- pracownia artystyczna zatrudni uzdolnioną manualnie osobę do renowacji antyków, doświadczenie nie wymagane, możliwość przyuczenia, stała praca na pełny etat w West Palm Beach, FL. Tel.: (786) 498-4406
- restauracja Texas Chicken w NYC zatrudni pracownika na pełny etat, oferujemy ubezpieczenie zdrowotne, okulistyczne i dentystyczne, $15-$21/godz. Tel.: (347) 780-3009 Sam lub Elijah, po angielsku
- szukam osób z samochodem, które mogą, za niewielką opłatą, przewieźć 9 lipca artystów gdańskiego chóru Non Serio z lotniska LaGuardia do Our Lady of Mount Carmel Shrine i odwieźć na lotnisko JFK 14 lipca. Tel.: (718) 314-4028
- firma zajmująca się instalacją szafek kuchennych potrzebuje fachowców i pomocników, praca w NY, dobre zarobki. Tel.: (201) 953-2175 Michał
- potrzebny doświadczony mechanik samochodowy do pracy w Hollis, praca na cały etat lub pół etatu. Tel.: (718) 207-2816 po angielsku
- potrzebna opiekunka i asystentka do 59-letniego pana na wózku inwalidzkim, pomoc przy codziennych czynnościach i pracach domowych, przenoszenie z wózka, wymagany język angielski i szczepionka przeciwko covid, praca w Battery Park City, 3 całodobowe dyżury tygodniowo, $900-$1200. Prześlij CV na email: JosephGWayne@gmail.com lub SMS: (929) 280-2938 po angielsku
- assistant/caregiver wanted for a 59-year-old disabled, professional man who uses a wheelchair, help with daily living activities, housekeeping, exercise and wheelchair transferring, must speak English and be vaccinated for Covid-19, work in a high-rise condominium in Battery Park City, 3 shifts lasting 24 hours, $900-1200 per week. Email resume: JosephGWayne@gmail.com or text: (929) 280-2938
- firma transportowa Alcatraz w Saint Louis, Missouri, poszukuje osoby do pracy w dyspozytorni (*dispatcher*), z doświadczeniem lub bez, odpowiednią osobę przyuczymy i pomożemy z przeprowadzką i znalezieniem mieszkania. Tel.: (314) 892-7200 lub (314) 435-3611
- potrzebny ślusarz do firmy Lockman, Inc. w Richmond Hill, wymagane doświadczenie i prawo jazdy, $20-$30/godz. Email: ken@lockmansystems.com lub tel.: (718) 849-7556, po angielsku
- polski sklep na Staten Island zatrudni osobę do pracy na cały lub pół etatu, doświadczenie mile widziane, wystarczy minimalny język angielski, wynagrodzenie w zależności od doświadczenia. SMS: (917) 991-4441 lub email: jn72@aol.com
- potrzebna dziewczyna do pracy jako ekspedientka w popularnej cukierni na Greenpoincie, praca na weekendy. SMS: (718) 877-1357
- Lockman, Inc. in Richmond Hill is looking for a full-time locksmith, commercial experience and driver's license required, $20-$30/h. Email: ken@lockmansystems.com or call: (718) 849-7556
- potrzebna opiekunka do pracy w La'Dorch Home Care do opieki, towarzystwa i prac domowych, wymagane pozwolenie na pracę i certyfikat HHA lub PCA. Tel.: (929) 679-0201
- La'Dorch Home Care seeks a certified home health aide to assist in daily living and personal care services in patients' homes, must be authorized to work and have an HHA or PCA certificate. Call: (929) 679-0201
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- Techvalens is looking to hire a data entry clerk, must be able to accurately review and input data and use Microsoft Office suite and internet. Email: mohit.techvalensoftware@tuta.io

Jeżeli szukasz pracy w NJ, przejrzyj poniższą ofertę. Więcej podobnych ofert znajdziesz w wydaniu "abecadła" z New Jersey.

Oferty pracy z New Jersey

- zatrudnię stylistkę fryzur oraz asystentkę do salonu w Butler, NJ, praca na cały lub pół etatu, przyuczymy odpowiednią osobę. Tel.: (973) 271-7002
- potrzebna opiekunka do starszej osoby w Haworth, NJ, praca z zamieszkaniem, od 9am w poniedziałki do 9am w soboty, język angielski nie wymagany. Tel.: (201) 387-7154
- szukam pracownika do instalacji basenów, okolice Linden, NJ. Tel.: (908) 296-8242
- potrzebna kobieta do sprzątania w duecie, praca na zastępstwo, od 1 maja do 25 maja, bardzo dobre zarobki. Tel.: (201) 704-3167 Małgorzata
- potrzebny pomocnik oraz murarz do pracy na budowie, dobre zarobki. Tel.: (201) 655-2127
- poszukuję niani do pomocy przy 11-miesięcznym dziecku, praca w moim domu na 2 dni w tygodniu od 8:30am do 5:30pm, $16/godz. Email: eternity88i@yahoo.com
- firma zajmująca się instalacją mebli poszukuje pomocnika do pracy na terenie NJ, miła atmosfera, dobre wynagrodzenie dla odpowiedniej osoby. Tel.: (201) 598-2468

Poszukiwanie pracy

- poszukuję pracy jako towarzyszka lub opiekunka do starszej osoby. Tel.: (347) 546-7855
- odpowiedzialna, opiekuńcza i pracowita Polka szuka pracy jako opiekunka do starszej osoby lub jako gospodyni, ma bardzo dobre referencje. Tel.: (347) 664-0186 Anna

GREENPOINTERS

Offerings from Bagel Joint, making their Smorgasburg debut this Saturday. Image courtesy of Brooklyn Flea.

Greenpoint This Week:

Good afternoon, Greenpointers.

How about that earthquake, huh? With Monday's big solar eclipse it feels like a harbinger of *something;* should we be looking for Godzilla?

Or it could mean we're in for an exciting weekend. In any case, check out our roundup of things to do here.

This week's news was mostly food-related. Smorgasburg is back! A few Williamsburg spots made the *New York Times'* top 100 best restaurants (Greenpoint got snubbed).

Two new bars to look out for—Animal and Bar Madonna.

We profiled an upcoming pop-up at Hana Makgeolli and spoke to the team at Republic Latin Fusion. We also got some preliminary details on the new bakery and restaurant opening in the revamped Domino Sugar Factory. As always, we have a Community Cookbook recipe.

The line at Radio Bakery snakes down the block on the weekends, so neighbors decided to make some money from it. Appliance rental service Green Gooding just launched a delivery service.

Is there any point in sharing an April Fools' Day article? Well, here it is. The venue Dead Letter No. 9 has reopened with new programming.

A legitimately affordable resident building, 35 Commercial Street, opened in Greenpoint.

EPA United States Environmental Protection Agency

EPA INVITES PUBLIC COMMENT ON THE PROPOSED CLEANUP PLAN FOR THE MEEKER AVENUE PLUME SUPERFUND SITE IN BROOKLYN, NEW YORK

The U.S. Environmental Protection Agency (EPA) is asking the public for input on its proposed cleanup plan to address the potential vapors that may be entering into residential and commercial buildings at the Meeker Avenue Plume Superfund site in Brooklyn, New York.

The EPA is accepting comments from the public on the proposed cleanup plan for this site from Friday April 05, 2024 to Friday May 10, 2024. The EPA will consider comments submitted during the comment period before making a final decision. The public is encouraged to review the plan, attend the public meeting, and comment on the proposed cleanup alternative. Comments may be emailed to ketu.rupika@epa.gov or mailed to Rupika Ketu, US EPA, 290 Broadway, 18 th Floor, New York, NY 10007-1866 no later than May 10th, 2024.

The EPA will hold an in-person public meeting to discuss the proposed cleanup plan on April 16th, 2024 at 6:00 p.m. at St. Stanislaus Kostka Lower Church,

For more information, please contact EPA's Community Involvement Coordinator, Anna Drabek at drabek.anna@epa.gov or visit https://www.epa.gov/superfund/meeker-avenue-plume.

In and around North Brooklyn

Greenpoint's trendiest new brand? The fashion club at St. Stanislaus Kostka Catholic Academy.

If you can't find a parking spot, take a cue from the 94th precinct, and create your own.

JJ's Southern Vegan gets a feature in Hell Gate.

More on Greenpointers.com

GREENPOINTERS

A spread from Sereneco, who just got a new executive chef.

Greenpoint This Week:

Good afternoon, Greenpointers.

Welcome to the weekend!

And what a weekend it should be. 4/20, Record Store Day, and Earth Day celebrations all abound. Check out our weekend roundup for some specific ideas (like this Peter Pop art show).

Good Williamsburg news: A Williamsburg duo has a new film set to make its debut (and it was filmed in Greenpoint!). Bad Williamsburg news: North Brooklyn Neighbors found high levels of lead in certain parts of McCarren Park.

We have a Behind the Toque with Sereneco's new chef and a Community Cookbook recipe from Hana Makgeolli. Park Deli will transform into a sit-down restaurant, likely by next week.

Bathhouse has submitted plans to remove the Hecla Iron Works water tower.

A sad story this week— a driver in South Williamsburg hit and killed a ten-year-old girl. Our hearts go out to the families affected.

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The EPA has extended the public comment period and is accepting comments from the public on the proposed cleanup plan for this site until **Tuesday, June 25, 2024.** The EPA will consider comments submitted during the comment period before making a final decision. The public is encouraged to review the plan and comment on the proposed cleanup alternative. Comments may be emailed to ketu.rupika@epa.gov or mailed to Rupika Ketu, US EPA, 290 Broadway, 18 th Floor, New York, NY 10007-1866 no later than **June 25th, 2024.**

CALLING ALL LOCAL ARTISTS!

Artist sign-ups for Greenpoint Open Studios 2024 are now live!

The deadline to sign up is May 20th! This year's event is happening on Saturday June 1st & Sunday June 2nd.

Since 2016, GOS has offered local artists with the unique opportunity to showcase their work and connect directly to the public. This weekend long celebration builds and celebrates the creative community in Greenpoint.

If you have any kind of creative work to show, whether it is in painting, performance art, digital art, book designs, or even handcrafted items like jewelry and shoes, you should participate as long as you have a space in the neighborhood of Greenpoint.

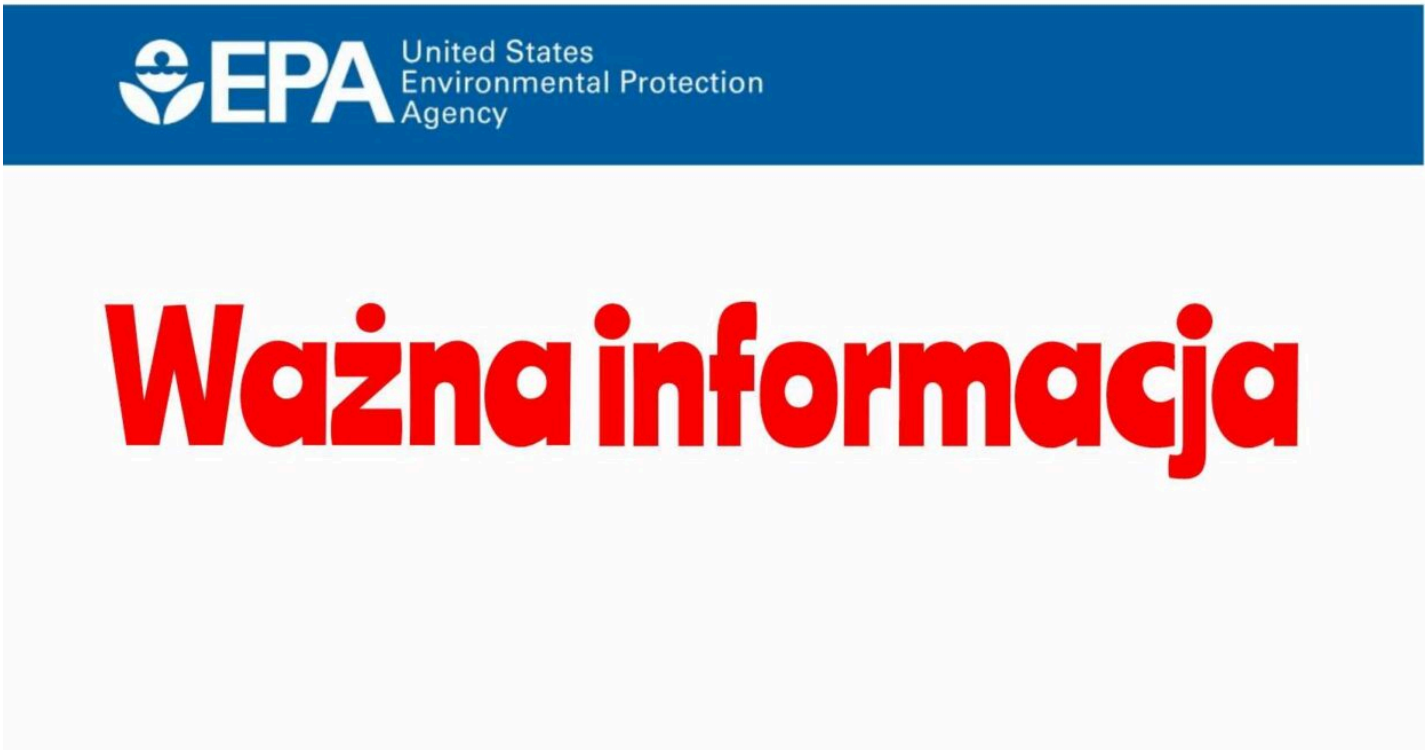
City Council Member Lincoln Restler went on NY1's *Inside City Hall* to talk about bills regulating lobbying efforts.

The Williamsburg location of Veselka is getting closer to opening.

More on Greenpointers.com

EPA przyjmuje uwagi mieszkańców

05.04.2024



EPA ZAPRASZA MIESZKAŃCÓW DO ZGŁASZANIA UWAG NA TEMAT PROPONOWANEGO PLANU OCZYSZCZANIA DOTYCZĄCEGO OBSZARU ZANIECZYSZCZEŃ MEEKER AVENUE PLUME OBJĘTEGO PROGRAMEM SUPERFUND W DZIELNICY BROOKLYN W NOWYM JORKU

Amerykańska Agencja Ochrony Środowiska (Environmental Protection Agency, EPA) zwraca się do mieszkańców o wyrażenie opinii na temat proponowanego przez nią planu oczyszczania dotyczącego potencjalnych oparów, które mogą przedostawać się do budynków mieszkalnych i komercyjnych, znajdujących się na obszarze zanieczyszczeń Meeker Avenue Plume objętym programem Superfund, w dzielnicy Brooklyn w Nowym Jorku.

EPA przyjmuje uwagi mieszkańców na temat proponowanego planu oczyszczania tego obszaru od piątku 5 kwietnia 2024 r. do piątku 10 maja 2024 r. Przed podjęciem ostatecznej decyzji EPA uwzględni uwagi zgłoszone w wyznaczonym okresie. Zachęcamy mieszkańców do zapoznania się z planem, wzięcia udziału w spotkaniu publicznym i zgłaszania uwag na temat proponowanej opcji oczyszczania. Uwagi można wysłać e-mailem na adres ketu.rupika@epa.gov lub pocztą do Rupika Ketu, US EPA, 290 Broadway, 18th Floor, New York, NY 10007-1866, najpóźniej do 10 maja 2024 r.

W dniu 16 kwietnia 2024 r. o godzinie 18:00 EPA zorganizuje stacjonarne spotkanie publiczne w celu omówienia proponowanego planu oczyszczania. Spotkanie odbędzie się w Dolnym Kościele św. Stanisława Kostki, przy 607 Humboldt St, Brooklyn, NY. W celu uzyskania bardziej szczegółowych informacji należy skontaktować się z Anną Drabek, koordynatorem EPA ds. zaangażowania społeczności, pod adresem drabek.anna@epa.gov lub wejść na stronę https://www.epa.gov/superfund/meeker-avenue-plume

Dodaj komentarz

Musisz się zalogować, aby móc dodać komentarz.

Tagi | Nowy Jork | Polonia | Brooklyn | meeker ave

PODOBNE ARTYKUŁY

"NYT" O ODPARCIU ATAKU IRANU NA IZRAEL:

Sukces Bidena może okazać się nietrwały

SOBOTNI SUKCES SIŁ IZRAELSKICH I AMERYKAŃSKICH, KTÓRE Z POMOCĄ ARABSKICH SOJUSZNIKÓW "NIEMAL PERFEKCYJNIE" ODPARŁY ATAK IRANU, BYŁ RÓWNIEŻ SUKCESEM PREZYDENTA JOEGO BIDENA, USIŁUJĄCEGO ZAPOBIEC ESKALACJI WOJNY; EFEKT TYCH DZIAŁAŃ MOŻE JEDNAK OKAZAĆ SIĘ NIETRWAŁY – OSTRZEGŁ WE WTOREK, 16 KWIETNIA, DZIENNIK "NEW YORK TIMES".

PIOTR BIAŁ

Joe Biden zasługuje na wielkie uznanie, lecz – jak mówią eksperci – "wciąż stoimy na krawędzi, a kryzys może w każdej chwili się nasilić"

Władze USA liczyły, że przebieg wydarzeń w weekend pozwoli każdemu z trzech głównych aktorów ogłosić sukces, jednak rozwój sytuacji może być inny. Izrael, zamiast odczuwać satysfakcję ze zwycięstwa, uprzedził w poniedziałek, 15 kwietnia, że odpowie na atak Teheranu - zauważył "NYT".

"Dyskretny cyberatak lub zdecydowana, lecz przeprowadzona na ograniczoną skalę akcja militarna może pozwolić Izraelowi na przywrócenie zdolności odstraszania bez prowokowania Iranu do ponownego ataku. Z drugiej strony, większa bezpośrednia operacja na terenie Iranu mogłby skłonić Teheran do kontrataku i (wówczas) konflikt mógłby nagle przerodzić się w wojnę ciągłą i coraz bardziej niebezpieczną" - prognozuje dziennik.

"W ten weekend widzieliśmy Bidena w najlepszej formie" - powiedziała w rozmowie z "NYT" Laura Blumenfeld, analityczka ds. Bliskiego Wschodu, a wcześniej doradczyni w Departamencie Stanu. "Pokaz (sił) lotnictwa pod przewodnictwem USA, z udziałem europejskich i arabskich partnerów regionalnych, wyglądał jak zwiastun filmu akcji (ukazującego) nowy sojusz obrony powietrznej w regionie" - oceniła.

Dodała jednak, że siły obronne Izraela nieuchronnie odpowiedzą Iranowi. "Nadstawianie drugiego policzka nie jest specjalnością izraelskiej armii - zauważyła Blumenfeld. - Odpowiedź Izraela nastąpi, pozostaje kwestia, kiedy i jak. Nie da się obejść matematyki Bliskiego Wschodu - grób za grób" - podkreśliła.

Niektórzy analitycy, uznawani za tzw. jastrzębi, uważają, że prezydent Biden popełnia błąd. W ich ocenie działania głowy państwa raczej doprowadzą do eskalacji, niż jej zapobiegną, ponieważ zarówno Iran, jak też inni wrogowie (Izraela) poczują się ośmieleni narastającą i jawną różnicą poglądów USA i Izraela na wojnę z palestyńską organizacją terrorystyczną Hamas w Strefie Gazy - czytamy na łamach "NYT".

"Postrzeganie tego jako oddalania się od siebie (Izraela i USA) mogło przyczynić się do bezprecedensowego irańskiego ataku - uważa Ray Takeyh z Rady Stosunków Zagranicznych. - Jeżeli zespół Bidena ponownie będzie starał się zdystansować USA od Izraela, sprowokuje dalszy konflikt" - ocenił analityk.

Skuteczna obrona Izraela była wynikiem 10 dni intensywnej koordynacji dyplomatycznej i wojskowej ze strony administracji Bidena oraz lat budowania przez kolejne amerykańskie rządy współpracy w zakresie bezpieczeństwa w całym regionie. Kiedy stało się jasne, że Iran po raz pierwszy planuje uderzyć na Izrael po dziesięcioleciach skrytych działań, urzędnicy z USA zaczęli uruchamiać regionalne plany obrony powietrznej, nad którymi pracowano od lat. Amerykańscy wojskowi ściśle współpracowali z izraelskimi odpowiednikami nad planami zestrzelenia nadlatujących rakiet i dronów, koordynowali działania z siłami brytyjskimi i francuskimi oraz ustalali z arabskimi sojusznikami dostarczanie danych oraz zezwolenia na korzystanie z ich przestrzeni powietrznej - podkreślił "NYT".

> **Skuteczna obrona Izraela była wynikiem 10 dni intensywnej koordynacji dyplomatycznej i wojskowej ze strony administracji Bidena.**

Jak podkreślono, szersza współpraca przeciwko Iranowi jest następstwem zmieniającej się polityki w regionie, czego przykładem są Porozumienia Abrahamowe zawarte za prezydentury Donalda Trumpa, na mocy których państwa arabskie, takie jak Zjednoczone Emiraty Arabskie i Bahrajn, nawiązały pełne stosunki dyplomatyczne z Izraelem.

Administracja Bidena próbowała wciągnąć Arabię Saudyjską do porozumień i choć nie podpisano oficjalnych umów, szejkowie w Rijadzie byli gotowi budować relacje z Izraelem, częściowo ze względu na wspólną niechęć do Iranu - przypomniała gazeta.

Przechwycenie prawie każdego z ponad 300 dronów i pocisków rakietowych wydaje się potwierdzać słuszność działań osób, które pracowały nad stworzeniem architektury bezpieczeństwa w regionie – zauważył "NYT".

John Kirby, rzecznik Białego Domu ds. bezpieczeństwa narodowego, stwierdził w poniedziałek, że rezultatem irańskiego ataku jest "silniejszy Izrael, słabszy Iran, bardziej zjednoczony sojusz i partnerzy (na Bliskim Wschodzie)".

"Nie taki był zamiar Iranu, kiedy przeprowadzał ten atak w sobotni wieczór. Znów mu się nie udało. Poniósł całkowitą klęskę" – ocenił Kirby.

Natan Sachs, dyrektor Centrum Polityki Bliskowschodniej w think tanku Brookings Institution w Waszyngtonie, również uznał, że powstrzymanie regionalnej eskalacji było ważnym osiągnięciem. W jego opinii Biden zasługuje na wielkie uznanie, lecz sukces prezydenta może okazać się nietrwały. "Wciąż stoimy na krawędzi, a kryzys może w każdej chwili się nasilić" - przestrzegł.

OS (PAP)

NBC O ODWECIE IZRAELA

Odwet Izraela wobec Iranu prawdopodobnie nie będzie polegał na bezpośrednim ataku na cele w tym kraju; należy spodziewać się raczej uderzenia w irańskie obiekty w Syrii, jednak wymierzonego nie w konkretne osoby, lecz np. w magazyny z bronią – ocenia we wtorek, 16 kwietnia, amerykańska stacja NBC.

Izrael wybierze opcję "bezpieczną", ponieważ nie zamierza doprowadzić do eskalacji konfliktu na Bliskim Wschodzie. Celem ostrzału mogą stać się np. obiekty w Syrii, w których gromadzone jest irańskie uzbrojenie, przeznaczone dla libańskiej organizacji terrorystycznej Hezbollah. Można oczekiwać też np. zniszczenia magazynów z zaawansowanymi technologicznie podzespołami do pocisków rakietowych - ujawnio w rozmowie z NBC kilka źródeł w Waszyngtonie, pragnących zachować anonimowość.

W nocy z soboty na niedzielę Iran dokonał odwetowego uderzenia na Izrael w odpowiedzi za atak na irańską placówkę konsularną w Damaszku, w wyniku którego zginęło kilku wyższych rangą irańskich oficerów.

Iran wystrzelił ponad 300 dronów i rakiet, głównie ze swojego terytorium, jednak wyrządziły one niewielkie szkody, bowiem ogromną większość z nich udało się strącić siłom Izraela, USA, Francji, Wielkiej Brytanii oraz Jordanii.

Według mediów z Izraela ministerstwo obrony i armia tego kraju uważają, że strona izraelska musi zareagować na atak Iranu, ale bez szkody dla koalicji pod przywództwem USA, która pomogła Izraelowi obronić się przed uderzeniem Teheranu. Izraelski gabinet wojenny podkreśla, że planowana reakcja nie może doprowadzić do wojny regionalnej.

Izrael zamierza koordynować swoje działania ze Stanami Zjednoczonymi, choć w niedzielę prezydent USA Joe Biden oświadczył izraelskiemu premierowi Benjaminowi Netanjahu, że Waszyngton nie weźmie udziału w ewentualnym kontrataku na Iran.

SM (PAP)

APPENDIX V

RESPONSIVENESS SUMMARY
Attachment D- Public Meeting Transcript

Transcript of Video File:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MEEKER AVENUE PLUME SUPERFUND SITE PUBLIC MEETING

April 16, 2024

Video Runtime: 1 Hour 14 Minutes 22 Seconds

(Beginning of Video Recording.)

MS. KETU: Be careful.

MS. DRABEK: Thank you.

All right. Hello. Welcome, everyone. Thank you so much for coming out. This is the Meeker Avenue Plume Superfund Site proposed plan public meeting. As you know, we released a proposed plan for addressing contamination at the site earlier this month. And now is the chance for us to kind of explain it in depth and then to answer any questions, take any comments you may have. So I will just go over a few points, and then we'll go ahead and begin.

So hopefully, when you walked in, you saw a sign-in sheet. If you didn't sign it, I'm going to pass it around. Please just put your name and e-mail. And then if you're not yet on our e-mail list, I'll make sure you're added so you can receive regular updates. We do also have a glossary of terms that we'll be using throughout the meeting at the table in the back. I'll kind of walk around and wave them around in case anyone would like one and doesn't have.

We have headsets for (foreign language spoken) we have headsets for translation. Just wanted to make sure folks are aware of that. This meeting is being recorded. We have a videographer who will then

transcribe everything that we say, and then that transcription will be part of the formal -- the final plan, the record of decision in a few months. So just wanted to make sure folks are aware of that. We'll have a presentation and then questions and answers and comments. All of those will be in the official record as well. And then bathrooms are in the back. On the left-hand side, there's a little sign for anyone who may need.

I think that is it. I'd like to introduce the EPA team that's here. So I'm Anna Drabek. I'm the community involvement coordinator for the site. Should have said that maybe in the beginning. The two project managers are here, Rupika Ketu, who will be giving the presentation, and John Brennan. Then Stephanie Vaughn, the site supervisor, is with us. We have Andrea Leshak, the site attorney, and then Carlos Vega, who's our press officer. So any members of the press, please approach Carlos if you have any questions. I think that's it. All right.

MS. KETU: Thanks, Anna.

Hi, everyone. I'm Rupika. I'm one of the project managers for the site. And today, I'm going to be going over the proposed plan. I'll start off with, you know, just some -- purpose of the meeting, why

we're here today. I'll give a brief history of the site and a site description. I'll go through what vapor intrusion is. I'll go through the Superfund process. And then I'll give an overview of the vapor intrusion proposed plan itself. And then we'll have plenty of time for questions and comments at the end. Can you-all hear me all right? This is good? Okay. Great.

So we're really here today to talk about our proposed plan for addressing site-related vapor intrusion in commercial and residential properties. As some of you are aware, I've -- I see a lot of familiar faces. You know, we're conducting a site-wide remedial investigation at the site, and we're expedited vapor -- we're expediting vapor intrusion sampling in residential and commercial properties. So this proposed plan is really so that we can mitigate any site-related vapor intrusion risks at these properties while we continue our site-wide investigation. So they're going to both move in parallel. And it's just an interim measure to mitigate any immediate risk to those living and working in this area.

And then down the line, once we complete our remedial investigation, we will be developing and evaluating cleanup methods for the entire site as well.

So just a brief description about the site. The Meeker Avenue Plume Superfund site is located in the Greenpoint and East Williamsburg area of Brooklyn, New York. And then on the right over there, we have our preliminary study area. And you can see that it's next to Newtown Creek and -- and bisected by the BQE. So in this area, the soil, soil gas, and groundwater are contaminated with chlorinated volatile organic compounds. I know that's a mouthful.

So CVOCs for short. And at the site, in the groundwater in particular and -- and vapor intrusion -- for vapor intrusion, trichloroethylene and tetrachloroethylene are the main contaminants of concern for vapor intrusion. Sorry. And so these CVOCs are volatile organic compounds. They are a subset of them that are substances that typically evaporate at room temperature, and they can affect the indoor air of properties that are located over an area that's contaminated with these compounds. And you can find chlorinated volatile organic compounds in common household items such as cleaners, air fresheners and in building supplies, like paints.

And so you know, we're investigating the full nature and extent of this contamination throughout the site. But, you know, today we're focusing on vapor

intrusion because it is a health concern. Tetrachloroethylene and trichloroethylene have both cancer and non-cancer effects, so we're -- we're looking to mitigate any risk from those at the site. So just a brief history about the site. Around 2005, 2006, the New York State Department of Environmental Conservation was investigating -- or sorry, cleaning up the Greenpoint oil spill. And they discovered these chlorinated volatile organic compounds in the groundwater as well, and that led to a series of investigations in the area between 2007 and 2022 where they tested the indoor air of over 160 properties and installed over 25 mitigation systems.

And then in March of 2022, EPA added the site to the Superfund National Priorities List, and that initiated our remedial investigation and feasibility study process for the site. And I'll talk a little bit more about that in a few slides. And so since November of 2022, we've been conducting groundwater sampling throughout the site and vapor intrusion investigations. And then on April 5th, we released our proposed plan for addressing vapor intrusion at the site. And I just wanted to quickly show this map of other federal Superfund sites and state-led sites in the area. So down here you have Gowanus in pink. Oh, can you guys

still hear me? Okay. And then the pink dash line --

Sorry.

Up here, that's the Meeker Avenue Plume Superfund site. In yellow is the Greenpoint oil spill. And then in pink up top, you have the Newtown Creek Superfund Site. And then around here, you also have the Wolff-Alport Superfund site that some of you might be familiar with. So I just want to take a moment to briefly explain what vapor intrusion is in case, you know, you're new, and you haven't heard us talk about this before. So I've mentioned that at, you know, the groundwater in this area is also contaminated with these chlorinated volatile organic compounds. So in the past, at some point, these chlorinated volatile organic compounds entered the groundwater through unintentional or intentional releases.

But because these compounds are volatile, they don't like to stay in a liquid state. So what they do is they move up through the soil, and they contaminate the air between soil particles, which is called soil vapor. So then you have this contaminated soil vapor resulting from the groundwater that can then build up beneath the foundation of buildings. And so you have this contaminated soil vapor built up beneath the buildings, and it can enter into the buildings

through either breaks in the utility lines or cracks in the foundation of the building. And that process itself is called vapor intrusion. And luckily, that can be mitigated by using a sub-slab depressurization system.

And so the sub-slab depressurization system is similar to a radon system. And it's basically a fan that draws out vapor from beneath the structure and redirects it out of the building, above the roof line so that those living or working in the building are not breathing those vapors in. VI sampling, or Vapor Intrusion sampling, is typically conducted in the winter heating seasons because that's when vapor intrusion is most likely to occur. That's because windows and doors are typically shut and HVAC systems are running, so it can perpetuate the ventilation of contaminated soil vapors indoors. And it's typically -- soil vapor intrusion sampling is typically conducted on the basement and first floor because that's where you're most likely to find impacts.

And the way we do it is a three-day process. So on the first day, EPA arrives at the property at a pre-scheduled time, and we inspect the -- the property to make sure there aren't any background sources, such as cleaning products and paints, that might affect the

sampling results. And we take those. We box them up and put them somewhere else so that they're, you know, not in the way. And then what we do is we install a small sub-slab soil gas port, which is the size of a quarter, very small, through like the lowest level, so typically, a basement floor. And this is used to sample the vapors from beneath the building. So on the first day we install the port. You typically only need one per home.

And then it's -- it's cemented through the slab or the floor of the building or property, but the port can be removed once the soil vapor sampling is complete. And then we restore the floor to its preexisting conditions. And this takes like usually between an hour and an hour and a half. On the second day, we come back. We make sure that the port is functioning properly. We do a helium leak test to make sure that -- that it works. And then we connect a sampling canister that looks like this to the port so that it can collect a sample from beneath the building, the soil vapor. And then we place these sampling canisters throughout the basement and first floor as well. They're just freestanding. And these all stay in place for a period of about 24 hours.

And this takes, you know, an hour to hour and

a half. Sometimes it's faster. And then on the third day, we just come back, and we pick up all the sampling canisters. And we deliver them to the lab for analysis, and it typically takes at least 90 days to get results back. And once we do, then we notify the property owner and the tenant of the results. So just an update on our vapor intrusion sampling efforts. We've been working very hard to try and get access to as many properties as we can in the area. Anna has been very good about going door to door. She has gone down every single street. We've also done mass mailings and social media outreach, so we're trying various methods.

We're working with the CAG also, Community Advisory Group in case you guys aren't familiar with the CAG, to -- to do additional outreach. So they've been helping us out as well. And so with those efforts, in the winter heating season of 2022 and 2023, we were able to test 13 residential properties, one public school, and the Cooper Park Houses complex, which is made up of 11 public housing buildings. And then this past winter heating season between November and March of 2024, we were able to test 23 properties.

Out of these, we've determined that 15 residential properties, Cooper Park Houses, and the

public school require no further action. Three properties require some additional sampling. And then we're still evaluating data from the 18 remaining properties that were sampled in 2024. And we're going to continue to conduct our vapor intrusion sampling throughout the next few heating seasons as time goes on. So I just want to go through the Superfund process real quick. I think some of you are familiar with this, but in case you're not, I wanted to explain, kind of, where the proposed plan falls in our process.

So in 1980, Congress established the Comprehensive Environmental Response and Liability Act -- sorry, Environmental Response, Compensation, and Liability Act, CERCLA for short and informally known as Superfund. And so then this allows EPA to clean up contaminated sites, hold parties responsible for the contamination, or reimburse EPA or the government for costs for, like, EPA-led cleanups. And so the Superfund process has several major phases, and it starts with the discovery of the contamination. And that's when EPA goes out and does some investigations, some preliminary work to see if the site meets Superfund criteria to actually become a Superfund site.

Once we decide that, yes, it should be a Superfund site, we list it on the National Priorities

List. And then that allows us to conduct our remedial investigation and feasibility study. So during the remedial investigation, we do a lot of sampling to determine, like, what the contaminants are, their concentrations, how they move around, where they're present. And then we also conduct human health risk assessments and ecological risk assessments. And that allows us to then come up with different ways or -- or evaluate different cleanup methods for the site. And so once we do that -- and that's called a feasibility study, when we evaluate the different cleanup methods.

Once we do that, we then put our preferred -- EPA's preferred cleanup method in a proposed plan. And so that's what we're here to talk about today. And so the proposed plan is then open for public comment and review. And once we receive all the comments, we take a look at them. We respond to each one. And then based on that feedback, we then formalize the cleanup plan for the site in something called a record of decision. And so once that's issued, then that allows us to actually implement the cleanup. And then it goes through a -- a couple steps of actually designing the cleanup. It's called remedial design. And then remedial action is the actual implementation of the cleanup.

And then after the cleanup method has been implemented, then we just periodically check to make sure that it's working. So for this site specifically, for vapor intrusion -- sorry. I just need to flip my page. In general, our cleanup objectives are to prevent exposure to people in -- in commercial or residential buildings from -- from these site-related contaminated vapors. And like I said, tetrachloroethylene and trichloroethylene are the main contaminants of concern for vapor intrusion at the site. So they're abbreviated as PCE and TCE. And then we also want to prevent the migration of these contaminated vapors indoors.

And so then this is the language that's from the proposed plan. So you can take a look at that, but I just wanted to explain it in -- in simpler terms. And then these are the cleanup levels that we've identified for residential and commercial properties. The residential levels have been calculated to be protective of the most sensitive populations, including elderly folks, pregnant women, and young children. And it's calculated over a period of 24 hours per day, 350 days a year for 20 plus years. And then the commercial levels assume an eight-hour workday, which is protective of most non-residential settings.

So as part of the vapor intrusion proposed plan, we evaluated two cleanup alternatives. One would -- the first one was no action. Under no action, we would not take any action at the site. We're legally required to evaluate no action, to establish a baseline to compare with other alternatives. So that's why that's there. And then the second alternative that we evaluated was vapor intrusion mitigation, which is: If we find an issue in the -- in the property or in your home, we would mitigate it by either installing a sub-slab depressurization system or sealing any cracks or gaps in the foundation if that can do it too.

And the way that we evaluate the alternatives is through nine criteria. And so the first two criteria there, the threshold criteria, are -- are -- are really important because any cleanup action that we select must comply with these two. So it must comply with the appropriate laws and regulations and then be protective of human health and the environment. And then we also look at five balancing criteria, and that includes how effective the -- the cleanup method will be in the short term and long term, the cost, is it implementable? And so I just want to emphasize though that cost is just one of the balancing criteria, and -- and these are all weighted equally.

And then the last two are two modifying criteria, which are community acceptance and state acceptance. And that's part of the reason why we're here today. These we take into consideration after the proposed plan is issued, after we receive all the public comments, and then the State has already let us know that they concur with us on this action. So in the proposed plan that we released on April 5th, we identified Alternative 2 as our proposed alternative. So in the event that we find any site-related vapor intrusion issues in a property, we would install a sub-slab depressurization system where necessary or use a preventative measure, such as sealing cracks and gaps in the foundation or the -- or the basement of a building.

And like I mentioned, the sub-slab depressurization system, sorry, involves connecting a blower, like small electric fan, to at least one suction pit that's dug into the foundation of the building. And it vents the vapors outdoors above the roof line so that the vapors are not going inside. And so our proposed plan reflects the cost for mitigating an estimated 100 properties within the Meeker Avenue study area with ongoing maintenance. And then the plan also estimates that indoor air sampling and mitigation

will just be conducted on an ongoing basis as needed for at least five years.

I just want to touch on how we determine the need for vapor intrusion. So obviously, like, we conduct sampling, and we look at those results. But then we also look at other pieces of information to help us make a conclusion or draw a conclusion. And that could include, like, looking at the subsurface geological and hydro-geological conditions around a building or structure; the -- the characteristics of each property, like what -- what are the conditions of the foundation of the building itself, is it intact, is it not; and proximity to other impacted structures. So -- so looking at these lines of evidence and -- and the sampling results, we then may determine that no further action is needed, or we might need to do some additional sampling to get confirmation.

Or we would determine that a sub-slab depressurization system is needed to mitigate the indoor air impacts that we find. So we are accepting public comments on this plan until June 25th, 2024, and you can either mail me comments or e-mail them to me. I'm going to leave this up here for a minute so you guys can, you know, take note of my e-mail address and my mailing address. And then any questions that are

asked today, any comments today, those will also be recorded and answered formally as well. At the end of the public comment period, we -- we make sure that we respond to each question and -- which you'll be able to view too. And then our proposed plan is available on our website.

And let me know once you guys are good. I see a couple more cameras. Okay. I'm going to go to the next slide. If anyone wants me to stay on this slide, just let me know. So yeah. So like I said, once the comment period ends, we'll review and respond to the public comments. What happened? Oh, okay. And then we will prepare a record of decision, which is the final decision document that will formalize our preferred cleanup method based on all the input that we receive. And the -- the record of decision will include responses to comments received through June 25th. Okay. And now we're ready for questions.

MS. DRABEK: I came up here too early. Okay. All right. So now, we're at the question-and-answer portion of the evening. So please, if anyone has questions or would just like to give a formal comment, please let me know. I'll come over with the microphone. Like I said at the beginning of the meeting, the meeting is recorded, so any questions or

comments will be transcribed and will be part of the formal record. And then we do ask to -- if -- when you speak, to please give your name or at least your affiliation with the site, whether a resident, a business owner, community member, et cetera. So all right. Any questions or thoughts?

Yes.

UNIDENTIFIED SPEAKER: Yeah. Could you just identify what the source is of the pollution?

MS. DRABEK: Sorry. Can I ask you to repeat that into the microphone?

UNIDENTIFIED SPEAKER: Can you just answer it?

MS. DRABEK: No?

UNIDENTIFIED SPEAKER: Do you know the source of the pollution?

MS. DRABEK: Do we know the source of the pollution?

MR. BRENNAN: Yes. The State has located at least six different source areas that have been identified. There's also at least 10 to 20 additional probable sources that EPA will have to investigate.

UNIDENTIFIED SPEAKER: Can you say anything about them?

MR. BRENNAN: Do we have that as a -- a spare

slide, the -- the location of those?

UNIDENTIFIED SPEAKER: Dry cleaning, the commercial --

MR. BRENNAN: One was dry cleaning. One was a drum reconditioner. There's, you know, two active facilities that are just under the BQE.

MS. KETU: Yeah. I can --

MR. BRENNAN: You have that one?

MS. KETU: I forgot [inaudible 00:23:03]. No, I don't have it [inaudible 00:23:04]. Sorry.

MR. BRENNAN: That's all right.

MS. VAUGHN: Yeah. I -- and -- and I just want to stress that we're -- we're still the -- like Rupika mentioned, we're -- we're addressing the site sort of in two parallel tracks. So the investigation of source areas is ongoing, and so we may find additional source areas. Some of the source areas we're looking at now may end up not being source areas, so it's -- it's -- it's a question we're still working on. And sorry.

While I have the mic, can I make -- add one thing to Rupika's presentation? When we're making determinations on whether mitigation is needed at a property or what next steps are needed, there's one more thing that we take into account. And that is

consultation with the State Department of Environmental Conservation and Department of Health. So I just wanted to add that.

MS. DRABEK: Any other questions? Yes.

MS. VICHNEVSKY: Hello. My name is Natalie Vichnevsky. I'm a resident in the area and also work for a local nonprofit called Evergreen. That's an industrial economic development organization that works with the industrial manufacturing community in the area.

I was curious if you-all could explain a little bit more about the remedial action levels and if -- the reason that they're different between residential and commercial, if that's just the math because of the different hours that people tend to spend in one place or the other, and if it effectually is the same level of protection.

MR. BRENNAN: That's right. It has to do with the exposure time. So exposure time at home would be different than exposure time in a -- a commercial building when you would expect to probably work eight hours a day as opposed to home when you could be home for 24 hours a day. Some of the other things that, you know, fall into that, we wouldn't expect there to be a baby at a commercial facility. Although, you know,

residential numbers typically include elderly that -- you -- you know, the most -- what's the word I'm looking for, most sensitive populations.

MS. VICHNEVSKY: So then actually, there's more TCE or PCE or what -- the intrusion kind of allowed in a space that's commercial because people might spend less time there?

MR. BRENNAN: That's correct.

MS. VICHNEVSKY: Okay. Okay. And I have one -- well, I'll just ask one more question. I have more questions. But the 100 -- the -- the 100 buildings, like the -- why -- why is 100 the number that is being targeted?

MS. KETU: Yeah. That -- that's fine. I can start.

That's just based on how many properties we've gotten access to so far. So it's just an estimate. We're not tied to it, right, by any means.

MS. VAUGHN: Yeah. I was just going to -- so -- so we need to -- when we put out a proposed plan, we need to have some cost estimate associated with it. So we estimated the 100 based on sort of best professional judgment. If it's significantly more, it doesn't mean that we won't address those properties. There is -- within -- within a Superfund decision, the -- the costs

can end up being greater than 50 percent or less than 30 percent than is estimated in the record of decision. But even if it's outside that range, we can then modify the decision. So it's -- it's not -- it doesn't limit us.

MS. VICHNEVSKY: Okay. Good. Yeah. Because I know the -- with the DEC, right, they did like 160 tests and did 25. I didn't know if it was, like, a similar proportion or something, but --

MR. BRENNAN: No.

MS. VICHNEVSKY: It doesn't have anything to do with --

MS. VAUGHN: We -- we -- we sort of looked at proportion, but it -- yeah.

MS. VICHNEVSKY: Okay. Thank you.

MS. DRABEK: Thanks. All right.

MR. CHESLER: Hi. My name is Steve Chesler. I'm chair of the Environmental Protection Committee at Brooklyn Community Board 1. My question about the qualification for -- you know, the threshold qualification to have remedy implemented, so, you know, property tests -- you know, it's a, you know, negative result. But in terms of what -- what proximity means in terms of -- there's, you know, property nearby that tests positive or offsite, say, in the street or in the

sidewalk.

And if there are details, you know, in the documentation that can be reviewed to take a deeper dive -- but I'm wondering if you could just add some more to that now.

MR. BRENNAN: There's nothing, as far as I recall, in the document about a proximity from -- from one home to another. Every home was looked at on an individual basis from one to the other, so there's not a -- a proximity distance in there. Well, if we had an issue here three homes over, you know, we have to do something. There's nothing in there about that. Everything is looked at on an individual basis.

MR. CHESLER: And -- but what about, say, testing done offsite in the street or in the sidewalk and -- example, go -- backing up, there's a negative result in the property, but in the street or in the sidewalk, you know, the -- in the -- testing the wells, there is a, you know, positive result.

So what is, you know, the threshold determined for that?

MR. BRENNAN: I can do it -- yeah.

If we were to find something in the groundwater or -- you know, the State has at least a few hundred soil gas wells that are in sidewalks like

you're mentioning or whatnot. And that might be a good reason for us to try to get access to some of those properties around in that vicinity. But you know, is there a number in there for that? No. Not necessarily. Like, a distance or something like that? No.

MR. CHESLER: And just quickly, just in terms of just the sampling area, in terms of, you know, approximately how many residential properties are within the -- the border right now?

MR. BRENNAN: Nine hundred.

MR. CHESLER: Okay.

MR. BRENNAN: Yeah. It doesn't mean residential. It's about 900 properties. Yeah.

BENNETT: Thanks.

Hello. I'm Bennett (phonetic). I'm a resident a couple blocks away. My question is about if similar sites exist in the city or elsewhere and if there's similar data that you've seen and if the depressurization system has been deployed elsewhere and how it's -- what the results have been.

MR. BRENNAN: Sure. The -- the sub-slab depressurization system, it's a proven technology, number one. Number two, it's the same technology that the State used when they did sampling before the EPA's

arrival. The State was involved from 2007. It's still to today, and they've installed, I think the number is, 26 mitigation systems. It's the same technology that the State used.

BENNETT: Are there other neighborhoods that have similar -- are there other -- other neighborhoods that have similar contaminants that have showed up with similar numbers? I mean, I -- you know, I imagine there are similar businesses around here than there are in other parts of the city, so I'm -- I guess I'm curious why this neighborhood and if -- if similar data has been seen elsewhere.

MR. BRENNAN: I -- I can't speak specifically to this neighborhood, but I mean, EPA has used this technology on other sites if that's what you're asking.

BENNETT: I guess I'm asking on the sample data specifically.

MS. KETU: Yeah. So we're investigating this area based on what the State found during their investigations between like 2007 and 2022. So we're building off that. We're not investigating outside of this area right now because we have no, you know, reason to believe that we should. So, like, I think you mean like other parts of Brooklyn or in Manhattan, right? Yeah. No. We haven't done any sampling there.

LAUREN: Hi. I'm Lauren. I live and work in the area. I don't know if this is the point in your timeline where you can share this information.

But based on the testing that you've done so far, does your testing area remain the same, or has it expanded or contracted based on what you've been finding so far?

MR. BRENNAN: At this time, it remains the same.

LAUREN: Okay.

MS. SPIROFF: Hi. I'm a resident, Deborah Spiroff. My question is more about a -- there's several sites in this area, and there's some -- there appears to be some overlap. Is there currently or will there be more of an oversight body that coordinates the various sites? Because as more data comes in and you evaluate the boundaries, they -- they can often shift. And is there a coordinating body entity, one, and if so, who is that?

And there appears to be responsible parties that have been determined. And they -- one of which is, I believe, to my knowledge, is New York State, and is that -- as well as other entities. And that -- if that goes -- you have potentially a conflict of cost and the remediation costs and the people determining

that. Is that -- how is that being looked at, and is that being looked at?

MS. VAUGHN: So --

MS. SPIROFF: I know that's a long, convoluted, multiple layered --

MS. VAUGHN: I -- I can try to address at least some of your questions.

MS. SPIROFF: Okay.

MS. VAUGHN: So -- so first off, I'm a supervisor of this site as well as Newtown Creek, so the two sites do share a border. So we definitely look at the sites together and share information. And -- and in fact, some of the groundwater sampling we did recently, you know, we -- we sort of coordinated across the two sites. And Rupika works on both sites as well, so there is that -- you know, that -- that shared knowledge. And we also work in the same office as the project managers for the other sites that Rupika mentioned, like the Wolff-Alport and Gowanus. So we coordinate with them as well.

In terms of responsible parties, we have not yet named any responsible parties for the Meeker Avenue Plume site. That is a process that we're working on, and it's -- it takes a little while. The State is not a responsible party for this site, and so -- so the

State is considered our partner agency. They -- they gave us the -- the site. You know, they referred it to us after they had been investigating it for a number of years. If a common PRP is found between, let's say, Meeker and Newtown Creek, then, you know, that's something we'll have to figure out. But we're not there yet.

I don't know if -- Andrea, if there's anything you want to add.

She's the site attorney.

MS. LESHAK: No. Stephanie covered it. Under EPA guidance, our policy is enforcement first. So we do try to identify potentially responsible parties. As Stephanie mentioned, that process is ongoing, so we don't have any real update to share at this time.

MS. SPIROFF: Thank you.

MR. ELKINS: Hi. My name is Willis Elkins. I work for the Newtown Creek Alliance. So I have a question -- a couple questions. First is about -- back to get to the -- the threshold levels and to the gentleman's question. I understand if EPA hasn't done sampling at the site, but I believe DEC has done sampling at other similar sites around the city. So the -- the question is about -- you just sort of gave

us the numbers, and maybe it'd be helpful to go back to that slide, of what EPA has determined as an acceptable amount of TCE and PCE. So I just feel like it would be helpful to understand how EPA arrived at these numbers, give some context of other sites. Maybe DEC can chime in.

And then I would also add a comment that I do think, to Natalie's point, that the commercial actions -- I appreciate being very conservative with the residential areas and assuming people would spend 24 hours. I don't know anybody who spends 24 hours, seven days a week, inside their house, but it's good to be protective. However, I know a lot more people that spend more than 40 hours in their workplace. So that's a comment that I think that, you know, four to one ratio of the protectiveness is -- is unacceptable, especially given the vast amount of commercial industrial properties that are in the zone. So that's a comment.

But the first question is about how we arrived at these numbers, and then I have a couple more questions.

MR. BRENNAN: Thank you, Willis. Our -- our risk assessor unfortunately is not here tonight, but as we said, we're documenting all of that -- you know, all

those questions. So we can certainly have her reply to that in one of the comments when -- when they come out in the written. That -- that's a -- there's a lot of -- you know, a lot of questions within questions you asked there about that. So I think maybe best to let her answer that, which we could do in writing.

MR. ELKINS: Okay. And I don't -- I don't know if --

MS. VAUGHN: Can I add one other thing?

MR. BRENNAN: Yeah. Sure.

MS. VAUGHN: And -- and I -- I just want to stress that -- that these numbers are one line of evidence, for lack of a better term. We do look at each property sort of holistically -- not sort of. We look at each property holistically and make a determination on a property by property basis. So if -- you know, I -- I guess what I'm trying to say is these numbers aren't bright lines necessarily.

MR. ELKINS: Would -- right. Would -- I mean, so I don't know -- to the gentleman's question about comparable data and numbers, would -- I don't know if DEC is willing to share anything about other sites and sort of thresholds for other DEC-led cleanups, et cetera.

MS. DUDEK: I -- I can speak in general --

generalities. I'm Heide Dudek. I'm the section chief for the Meeker Avenue Plume. I'm also the section chief for the Newtown Creek, when you asked about coordination. So the State and EPA are in constant communication with both of the sites in the surrounding area. DEC actually relies on our sister agency, who's represented here today by our -- our project manager for the Meeker Avenue Plume.

But DOH has their own soil vapor matrix, and they are the ones that will make the determination on a DEC site. Yes. There are many places within New York City and New York State that do have soil vapor plumes, and they have been mitigated with this radon-type system. It's well documented, and it's a standard remedial action. So I can't answer anything else like that if --

Shaun?

MR. SURANI: Yeah. There are some -- some difference -- slight differences in numbers criteria that -- that the State has used in the past and -- and I have used to, you know, recommend actions to mitigate properties. As far as the indoor air, they're pretty close for the TCE and the PCE to what New York State was. You know, our -- we don't necessarily draw that distinction between commercial and residential, but you

know, like I said, we each have our own -- two different agencies, we all have our, you know, criteria. And as Stephanie had mentioned before, they -- you know, EPA will -- will work with us, you know, to make those determinations.

MR. ELKINS: Yeah. So I mean, just if I'm hearing that correctly, the State has numbers that are different than these and that there's not a major distinction between commercial and residential? So maybe it'd be very helpful to share, like, more details about that.

MR. SURANI: Yeah. I -- our numbers -- in -- in the past -- the decisions that we've done in the past, we have our own, like, decision matrices, and we have used those in the past to make recommendations based on the numbers, you know. And having made that distinction between commercial or residential, for instance, you know, we've recommended to mitigate a property, you know, a commercial space where TCE in the indoor air was above two, you know, in that range, not above eight. So, you know, but each -- each individual property is different, and we -- we look into -- to all of that to make our recommendations and including how that space is used, how often folks are there. So there is a lot that goes into it other than -- than

just these numbers.

MS. DUDEK: And that --

MR. SURANI: And we -- we are committed to working, you know, as closely as we can with -- with the EPA to -- to -- to -- to make sure that our -- their decisions, you know, would line up with ours.

MS. DUDEK: And -- and I would fully concur with that, that the -- and that's what I mean by each property will be evaluated individually. So if there were a commercial space, let's say, where people are spending significant amounts of time and there were, you know, the -- and -- and the numbers fell below these, but the -- you know, we felt it was warranted, we -- we -- we could install a mitigation system. And the decision document will be written up in such a way to give us that flexibility.

Yeah. Okay.

UNIDENTIFIED SPEAKER: Yeah. If -- if it's okay, I wanted to do a different topic, which is the -- the number of buildings and how many people you have brought into this process. You may have debriefed on that at the beginning of your speech, so I don't -- please don't repeat it if you did. But you said there's 900 properties of concern, commercial and residential. And I think you also said that you've

determined that Cooper Park Houses is not in need of remediation.

So could you tell us more about how many properties you got into, how many owners or resident occupants on the first floor, to your knowledge, are aware of this problem? I just went one day out on the street with the organizing outreach team, and it was extremely difficult to get into properties with absentee landlords. And it's -- a lot of the buildings are occupied by hardworking people who aren't home at normal hours.

So I -- I just wondered, do you -- how -- how well do you feel you've penetrated the population that could be impacted? Tell us about that if you -- it seems like maybe you feel good about it. Tell us.

MR. BRENNAN: Sure. Do you have the -- not that number necessarily. The -- the map of the -- the outline?

MS. KETU: Oh, I --

MR. BRENNAN: That's not the first slide or --

MS. KETU: Oh, yeah.

MR. BRENNAN: That one. Right. So it -- my estimate inside that blue area was that there's about 900 properties. And -- and I did that for another

reason. We're trying to take a look at different sections of that outlined area just to see -- or you know, we've seen higher concentrations in certain areas than others. The State, before EPA's involvement, sampled north of about 160. EPA, since our involvement, which the site was listed in March of 2022, we sampled 23 properties through last December. And -- and that data has been shared with those property owners. We sampled another 18 just this February and March.

UNIDENTIFIED SPEAKER: Are those different? That's 38 different properties from the original 160?

MR. BRENNAN: That's right. That's right. One of those 18 properties we had sampled a prior time, so it was only 17 new properties. We -- we asked them to come back a second time and -- and sample it at a different winter heating season. So that -- that's the numbers that we have. As far as outreach, that has been a struggle, and that has been something that we have worked extremely hard on, both through mailings, through door to door, just trying to get information out through word of mouth, through our social media.

That -- that has been a -- a tremendous challenge. And I know you said that, you know, it's tough to get people during the day when they're at

work. We had, you know, similar circumstances when we went around at night after work. People not wanting us to bother them at -- at dinner time. Or you know, Rupika and I went around one night. And they're like, it's dark; what are you knocking on my door for? So it has definitely been one of our main priorities, but I mean, it has been a challenge. Did you have another question in there? I know you --

UNIDENTIFIED SPEAKER: Well, I just -- how do you feel -- I'm sorry. How do you -- how do you feel? So it's less than 200 properties out of 900, and -- and I kind of connect to that Cooper Park Houses. How many ground floor units did you get into?

MR. BRENNAN: Oh, okay.

UNIDENTIFIED SPEAKER: How many residents did you converse with? You know, just -- I -- I guess, kind of the history of our community, I'd like to be sold a little more --

MR. BRENNAN: Sure.

UNIDENTIFIED SPEAKER: -- that the people have had a chance to ask for remediation if they need it.

MS. VAUGHN: There's one other point, I think.

MR. BRENNAN: Okay. Sure.

MS. VAUGHN: Okay. I just -- I -- I'll let John answer that, but one other point that maybe we should make is that our outreach and access efforts are ongoing. So by making -- by making this decision, we have the ability -- it will give us the ability to mitigate any problems we find, but we plan to keep going for years to come, to -- to try to access as many of those properties as we can. I don't know if that gets to your concern.

UNIDENTIFIED SPEAKER: That's good to hear.

MR. BRENNAN: As far as Cooper Park Houses, we got inside of all 11 buildings when we did the sampling last year. There are no residences on the ground floor in any of those buildings. However, we were able to sample in, you know, the -- the manager's office, the lunch area. You name it, we were inside of every single building. Every building, it -- it's kind of unique. Every building is a little bit different. It's a different size, and it has got a different purpose.

It's kind of like their own city, if you will. So we got inside of all 11, and we were able to get not only sub-slab soil gas, but indoor air, outdoor air. And in many cases, the center -- you can't really see it here, but the center of the buildings actually

have vented areas. It's just the way the building was constructed. We got in there as well. So that was very successful. And none of those needed mitigation.

MR. SURANI: I just wanted to -- to also clarify that, just to echo what they -- the EPA has noted, you know, in the State's investigations to date, the -- that has also been our biggest hurdle, is -- is obtaining access to buildings. I think prior to the State or the site going to -- to -- to the EPA, I think it was what, maybe the 2021 to 2022 heating season, you know, DEC, the State sent out letters to, I think, every property within the area of interest. You know, there were -- there -- there's difficulties in -- in -- in outreach, but letters were mailed to, you know, close to 1,000 properties. And, you know, the response rate was low. So that -- that's something --

UNIDENTIFIED SPEAKER: Sixty.

MR. SURANI: What?

UNIDENTIFIED SPEAKER: Sixty.

MR. SURANI: About 60. So, you know, roughly a six percent response rate. So that is something the State has -- has struggled with to date and does seem to be kind of the biggest hurdle for -- for the site.

UNIDENTIFIED SPEAKER: May I ask a follow-up question? This may be legalese, but if a landlord --

if the landlord received a letter like that and it comes to light some time later that they did not avail themselves of this investigation and the potential remediation, can the tenants sue in the future? Like, if their kids grow up and they're sick, something like that?

MS. LESHAK: Thank you for your question. So that question is outside the purview of what the EPA can answer because we cannot provide legal advice, so you could feel free to contact an attorney. I will clarify that EPA has authority under the Superfund Law to access properties for sampling and response actions. So while we are seeking consent from owners and tenants to sample, our policy advises us that if access is not forthcoming, we are able to require access through administrative or judicial means. But of course, we want to cooperate with the community, and that's why we've made our outreach efforts thus far to try to cooperate and obtain access consensually.

MS. BACH: Hi, there, I'm Paloma Bach (phonetic). I'm a community member, and I also work in the community. One thing that was of note when we went back a couple slides ago that we tested -- you-all tested about 20 buildings in 2022 to 2023 and 20 buildings the year after that.

But my concern mainly, especially with the active sites that were -- are still being investigated is what's the likelihood of going back to some of these buildings and retesting based off the fact that we're not really sure how widespread the contamination is and -- and how -- how many sites are currently active?

MR. BRENNAN: That's a good question. EPA hasn't seen the need to go back to any of the homes that were previously sampled by the State as yet. You know, if we have data that indicates that that's the case, then of course we'll go and -- and try to get access to those properties and -- and to retest them. But we haven't seen the need to do that yet. There are some properties, based on our data, that we -- you know, we have asked to go back to and sample a second time. The State had to do similar things. So in those cases, then yes. Then we -- we go back another time to make sure. You know, if -- if we saw some data -- I'll give you a perfectly good example.

Last year, we had tested a -- a building, and there was nothing in the first floor space. There was two units. There was, you know, nothing in the basement, but we did find it in the sub-slab soil gas. So we said, we want to go back out and test again to see if there's any changes. Make sure, even though no

one is living in the basement, it's just a storage area, make sure that there's nothing coming in there. There's people living in the first floor spaces; make sure there's -- you know, they're not getting any type of exposure. And that was -- that was the one house we did again, I -- I -- I mentioned it a few minutes earlier, just this past February and March, but we don't have the data back yet.

MS. BACH: Okay. So just to confirm, even if there -- the first time around testing there was nothing found, even if buildings may be at risk, you are not required to go in and test again?

MR. BRENNAN: I -- I wouldn't use the word required. I mean, if -- if I had a homeowner call me and said, hey, you know -- I'll give you a perfect, good example. We had the house tested 10 years ago, and since that time, A, B, and C happened. Well, there might be a reason for us to go back. You know, maybe they, you know, had a big crack form in the floor. Maybe they did a big remodel that might have changed some of the structure of the building. There's plenty of reasons to go back. So, you know, we take phone calls from -- from everyone and try to go through that with them. It's not just no. We did -- you know, no. Sorry. You've already been sampled.

MS. BACH: Okay. Thank you.

MR. BRENNAN: Sure.

MS. GOODMAN: Hi. I'm Lael Goodman. I'm with North Brooklyn Neighbors and also part of the Meeker CAG. I guess you were talking about the differences in the thresholds for residential and commercial. And just to go back to that, I mean, I know we talked about the number of hours, but there was also something said about, like, the vulnerability of the populations. You were saying that for residential, you considered, you know, the most -- most vulnerable people.

And I was just wondering if in the commercial properties, you are also using the most vulnerable populations of just, you know -- there are, like, pregnant women and people who are elderly who do work in those spaces, so I guess that's a comment and a question.

MR. BRENNAN: No. That -- that's a real -- that's a really good question, and I -- I have a good example. We -- we tested a home last December, and I, you know -- I won't go into details about where it was. But the gentleman uses it as his business on -- on the first floor, but he lives on the second floor. So when we sampled that property, you know, we didn't use

commercial. We didn't use the commercial numbers because he could be down there all the time, on the weekends, at night. Plus, he lives upstairs. It's not, you know, like your traditional, you know, environment. So in that particular instance, we compared, you know, his numbers to residential numbers. So, you know, when we evaluate properties, of course those things are taken into consideration.

MS. GOODMAN: I guess -- I guess I would just argue that sometimes the current workers aren't necessarily the future workers or people may become pregnant or things like that. So that's one comment. My other question was about the venting. I know you said it goes to the roof line of the property.

I know there's very varied roof lines here and would want to make sure that -- I don't know, is there a radius of you do it as high as the neighboring house within three houses? Or how do you make sure that that venting doesn't affect nearby properties?

MR. BRENNAN: Yes. I mean, we would want to get it above the highest roof line. If -- if your neighboring property was higher, we wouldn't want there to be any reintroduction into him because he happened to have a window there. Of course.

MS. GOODMAN: So it would go as high as the

neighboring property or if there was one, like, you know, two properties away -- or I guess how do you kind of -- what the criteria is there?

MR. BRENNAN: I'll -- I'll double check that. I'll double check that, and we can get that information to you if there's a distance.

MS. GOODMAN: Okay. Thanks.

KYLE: Hi. My name is Kyle. I'm a resident in the area. I had a question on access to information and the process around that in terms of whether sampling is being completed in your building from a renter's perspective and whether there's a process to ask for access to that information or confirmation, whether sampling has been completed or not, or if you could talk about the process.

MR. BRENNAN: Sure. Typically, what we'll do, you know, aside from our typical outreach, we get phone calls from property owners or tenants fairly regularly. And, you know, what we need to do is we need to get permission from the property owner. The way EPA has handled their sampling is that we get permission from the -- from the property owner. Of course, the property owner would get that data. If we get into the tenant space, let's say the tenant has the first floor space or the basement space and they allow

us access to come in and -- and to sample their -- their indoor air, then that data would get shared with that tenant as well because they gave us access to their space.

KYLE: Understood. I guess in terms of whether sampling has been completed or not, outside of whether they actually require access to your specific unit, is there a process for requesting that information, or is it limited to, you know, your relationship or the contract with your actual property owner?

MR. BRENNAN: Yes. We haven't shared that information, you know, with anyone or -- the State has been the same way. We've been trying to come up with a way to get people a -- a better sense on, you know, generally speaking, where homes have been tested, you know, what we call a -- a cluster map. It's something we'll probably be sharing with everyone at our next CAG meeting in May, which is May 30th. But we've been trying to get an -- you know, give people an idea about, you know, if I live in this part of the community, has there been a lot of testing in the -- in my part of the community? Has there been a lot of systems installed in my part of the community?

It won't -- it's not specific enough. It's

not street level, but, you know, give you an idea that if you live on -- and I'm just going to make up a name, on Sutton, right, that, you know, within a certain block of area, has there been a lot of testing? And if -- you know, if there has been, you know, how many people have -- have needed systems? But it's not going to get specific to if you wanted to know what your neighbor was or something like that because that's -- that falls under the, you know -- the -- the privacy of that person. We're trying to balance not only the privacy of the people that have been sampled, but the communities, you know, want to know, and EPA's need to -- to share -- their responsibility, I should say, to share that data.

KYLE: Thank you.

MR. SURANI: To clarify a little bit on what's done in New York State, in New York State -- and we've worked -- we've dealt with this in the past. New York State, what's -- has what it's called a tenant notification law. So for vapor intrusion results, if a -- if a result -- if an indoor air result is above New York State's air guideline values, which are 2 micrograms per cubic meter for TCE and 30 micrograms per cubic meter for PCE -- if the results -- indoor air results are above those numbers, in the past, when --

when we would send results letters out, we would include that information as well.

And if -- if -- if the -- the indoor air numbers are above those, they would be required by law to -- to share that with tenants. If they're below that, they are not required to -- by law to -- to -- to -- to share that. But that would be, you know, something that would have to be worked out between the tenant and the landlord, you know. You could always request it, but they're not necessarily required to. But in letters that we have sent out in the past, we always do encourage owners to share their results with all occupants and all tenants.

UNIDENTIFIED SPEAKER: Do you publish --

MS. DRABEK: Do we publish --

UNIDENTIFIED SPEAKER: The -- the letters with --

MS. DRABEK: -- the letters --

UNIDENTIFIED SPEAKER: -- (crosstalk) property where the numbers can come in at [inaudible 00:58:41]?

MS. DUDEK: No. We have the same privacy policy. We provide the -- the data to the owner of the property. And under New York State law, that the landlord is required to -- if there is a mitigation

needed, to notify the tenants. They're not -- he's not or they're not required to do it if there's no mitigation needed, but those are private. We don't share people's private data.

UNIDENTIFIED SPEAKER: So if the landlord doesn't tell the tenant, the tenant has no way of knowing?

MS. DUDEK: If it -- if the building needs mitigation, they're required by law to tell the tenants. If it does not, they aren't. They would --

UNIDENTIFIED SPEAKER: If they don't?

MS. DUDEK: If they don't, then you -- the best thing to do is to -- if you have a question, is to reach out to EPA. If they -- if it's your building, they can let you, you know -- they can discuss with you, and they can work with your landlord to try to get them -- if they're not sharing the data that they should. And it's the same thing if DEC has done it. But again, we all are -- are, you know, bound by privacy laws in what we can and can't do.

UNIDENTIFIED SPEAKER: I know that, John, you said before to Willis's question with kind of figuring out the sort of calculus behind getting the actual numbers that you would share that in writing.

But could you-all talk just briefly a little

bit more about the risk characterization in terms of, like, just explaining to folks, like, what, you know -- what we're even talking about in terms of what the danger is, like, the, you know, one in 10,000, you know -- just understanding broadly what the health risks are.

MS. KETU: Yeah. So I can speak to some of the cancer and non-cancer health effects of both TCE and PCE. So cancer effects from the exposure to TCE and PCE can include liver and kidney tumors. And then non-cancer effects for TCE include developmental and immune system effects. And non-cancer effects for PCE exposure include nervous system and ocular effects. As far as explaining, I think, like -- I think you're talking about, like, the hazard index and the way risk is actually calculated. It would be best if we let our risk assessor do that. Yeah.

UNIDENTIFIED SPEAKER: -- (crosstalk) in the same bucket.

MS. KETU: Yeah. Yeah.

MS. GOODMAN: -- comment about that. Just a comment about that. Sometimes those documents can be, like, really hard to understand. So I guess I'm just hoping that when that does -- is sent around, that it is in easy-to-understand terms.

MS. KETU: Yeah. So we'll include a response to, you know, your question and Willis's question in our responsiveness summary which you will all be able to view, and we'll make sure that it's, you know, explained in a way that's easily understandable. Because I -- I understand. It can be confusing.

MS. DUDEK: John has a good one with, like, the marbles in a pool [inaudible 01:01:43]. Stuff like that would help.

MR. BRENNAN: Okay.

MR. ELKINS: Hi. Willis again. So the -- I guess I'm having a hard time sort of understanding what -- what is actually being proposed because it sounds like you're already, like, doing all this stuff. And so, you know, if there's a record decision that you want people to comment on, what is actually happening here --

UNIDENTIFIED SPEAKER: Yeah.

MR. ELKINS: -- that -- then that's different from being happening aside from like -- honestly, the only thing -- I mean, it's great that it sounds like you're working on identifying more responsible parties, doing more testing, expanding the potential range. But honestly, it's like the State has already -- was already doing installing vapor mitigation systems.

That's what you're doing. The thresholds seem less protective than the State's.

Is there actually steps towards any real remediation of the contamination as opposed to just getting it out of people's houses, the vapors?

MS. VAUGHN: So yeah. You -- you picked up on exactly what's -- what's happening here. So -- so as I mentioned before, there are the two parallel tracks going on with this site. The way Superfund is set up, we cannot take a remedial action, including a mitigative action like installing a -- a mitigation system, without some sort of record of decision allowing us to do that. So this proposed plan is really very straightforward.

It -- it -- it gives us the ability to take action if we find a problem in a -- in a -- in a residence or a -- or a property. This is not cleaning up the site. This is an interim measure that will protect people's health who are being impacted by the contamination. In the long term and, you know, as you know, the -- the process can take a long time, we are investigating the groundwater. And we'll do it -- be doing all the investigations and seeing what kind of cleanup actions we can take to -- to come up with a more permanent solution. But we're not there yet.

MR. ELKINS: So -- and sorry if I missed this. So just to clarify, EPA hasn't installed any mitigation systems yet; the DEC has. So this is a way for EPA to start doing that as an agency?

MS. VAUGHN: Correct.

MR. ELKINS: Okay.

MS. VAUGHN: So the site is now under, you know, Superfund federal authority, so we need to be able to install them. If in the meantime -- just -- just for the record, if last year we had found a problem that required mitigation before this decision was signed or if we find one if this gets delayed, we -- we can use our removal program to -- to install a system. But that's not a long-term solution.

MR. ELKINS: So then a follow-up is a sort of -- what -- is there a timeline on -- probably your favorite question from us. Is there a timeline about, you know, the -- the next steps in the actual real remediation?

MS. VAUGHN: So it'll be long. We -- we -- at the May -- correct me if I'm wrong, but at the May 30th CAG meeting, we do intend to share some results -- or at least preliminary results of the initial groundwater sampling we completed. That will give us an idea of where we need to install additional wells,

and it'll help us flesh out the rest of the investigation. We're -- I mean, it will take years to -- to get to a -- this meeting for the rest of the site unless we determine that some sort of early action is needed. I -- I don't have a solid timeline at this point. We're too early in the process.

MS. VICHNEVSKY: Can I ask one more thing? I know that Lauren asked this earlier about the boundary, but is that -- at -- and I know that we will talk more in detail about this at the CAG meeting on May 30th.

But when, John, you said that there's no change, does that mean that there's no change as of what you can share right now or as in like right now, in time, there is no change?

MR. BRENNAN: Either today or the next time we meet on May 30th, the outline will be the same.

MS. VICHNEVSKY: Okay. Thank you.

MR. BRENNAN: Sure.

MS. VICHNEVSKY: And then I had one more quick question. The rolling basis of five -- in the five-year period, does that have -- like, why -- what, you know -- where did that come from?

MS. KETU: Yeah. So like Stephanie mentioned, just for cost estimate purposes --

MS. VICHNEVSKY: Okay.

MS. KETU: We have to do some kind of estimation. So we just said, for at least five years, you know, we're going to be doing the sampling. But that's not, like, set in stone or anything.

MS. VICHNEVSKY: Okay. Thank you.

MS. GOODMAN: Hi. Another comment, I guess I would say I very much appreciate you saying you look at things, like, on an individual basis. And that's great for people who, like, know and trust you. But I would also say that, like, that's not always the case. And so while it is great that sometimes you go to the residential levels if you think, you know, a commercial building warrants that, I think there is something to having it kind of a little bit more formal. So I just want to make sure that that is recognized, that, you know, it's all well and good to -- to -- to trust you guys. But like I said, that's not always the case.

MS. VAUGHN: Yeah. No. We -- we appreciate that. But just -- just to clarify, we could make the -- - the -- the case-specific determination to be more conservative, to be more protective. But we do not have the flexibility to be less protective. So we wouldn't look at a property and be like, eh, this one doesn't really need mitigation. You know, it's -- it would be in the more conservative direction.

UNIDENTIFIED SPEAKER: Hello. The November to March period for testing, I get that in warmer weather, people keep their windows open. But if we're -- is it possible to test, say, a basement where there's not much air flow even during warmer weather just to kind of get ahead of it, or are we strictly staying within these months?

MR. BRENNAN: If -- if we, you know -- obviously, EPA prefers to do the sampling in the winter heating season. If we had reasoning to do it outside of the winter heating season, I mean, yes. We could do it. We would have to go do it again back in the winter heating season though anyway, unless we found such egregiously high levels down there that, you know, we had the answer we needed in a sense. If it came back below, we would still have to do it in the winter heating season.

UNIDENTIFIED SPEAKER: What -- so to -- I've one more to -- I'm going to piggyback on his question, but then I have one other question. So I know that, John, you've explained in the past that for the winter heating season, there's also -- I think there's only like one lab that you-all work with and -- or that processes things and that it takes, you know -- there's only so much that you would even be able to do in a

certain period of time.

Are there any limitations, like that kind of thing, to the amount of testing that could be done?

MR. BRENNAN: I -- I mean, are there limitations on the high end? I -- I -- I don't know. I mean, I -- I had to -- I had to book it very far in advance, and I booked a high number. I mean, we didn't -- we didn't get to the number that I booked to. What you're referring to is that, you know, in the winter heating season, everyone does this kind of work. So it's -- it's a challenge to get lab space.

UNIDENTIFIED SPEAKER: Yeah.

MR. BRENNAN: However, you know, we -- we -- we -- because we're planning this that far in advance, we're able to get that lab space. I think we booked for -- I think it was 24 for, you know, February and -- and March, and we got 18. Next season, because I got 18, I'll make sure I'm going to probably book for more, I mean, depending on what type of response we're getting at the end of the year. But we have to get it that far in advance to guarantee that we don't have the issue of not getting lab access.

UNIDENTIFIED SPEAKER: And then the -- as we discussed that the values are a little bit less protective as compared to DEC's numbers, what -- I know

that it depends on the math.

But does that have to do with -- like, is there a cost factor? Does cost factor into that at all or --

MR. BRENNAN: As far as into the -- the vapor intrusion screening levels we used, there's no cost factor in that.

UNIDENTIFIED SPEAKER: Okay.

MR. BRENNAN: No.

UNIDENTIFIED SPEAKER: Thanks.

UNIDENTIFIED SPEAKER: Thanks. In regarding -- you know, assuming the, you know -- the ROD is approved, who will do -- do -- if a property requires the remedy, who physically does the installation? Does EPA do it directly, or do they have a contractor? Or can, you know, the property owner actually do it themselves under the guidance of the agency?

MR. BRENNAN: EPA has been doing the work. What we've been doing -- all the work we've been doing is through the United States Army Corps of Engineers. That's just the way we have this set up. So the Army Corps and their contractor staff have been doing it all for us. It would probably be the same for, you know, the mitigation systems if we needed to install any.

UNIDENTIFIED SPEAKER: Hi. There were only

two remedies looked at. I'm assuming that's because there's not really another option. Or are there other options that exist or other technologies?

MR. BRENNAN: This is a proven technology that has been used in this neighborhood. And so that's why we evaluated that. You know, one of the other technologies -- and I -- I think Rupika might have mentioned it is. And it -- a few -- the State did it a few times. It's just to seal the basement floor and sample again. Let's say the basement floor has so many cracks in it that it's not hard to figure out why it's getting in that house. You could, you know, either put a membrane down, or you could seal the floor and then sample it again. And then, you know, you wouldn't need a -- a, you know, sub-slab depressurization system. So that's certainly another option. Sometimes you need to do both.

MS. VAUGHN: So and -- and that -- just -- I -- the -- the alternative we developed includes the sealing of cracks --

UNIDENTIFIED SPEAKER: Yeah.

MS. VAUGHN: -- and -- as needed, so --

UNIDENTIFIED SPEAKER: But it's just -- this is -- this is what --

MS. VAUGHN: But just put it all together. I

--

UNIDENTIFIED SPEAKER: -- basically anyone -- everyone does --

MS. VAUGHN: Yes.

UNIDENTIFIED SPEAKER: -- when there's vapor intrusion in people's homes or --

MS. VAUGHN: As far as I know, I don't think there's another solution that's as effective or --

UNIDENTIFIED SPEAKER: Great.

MS. VAUGHN: Yeah.

MR. SURANI: There's things that we view that -- at sites, you know, throughout New York State where, for whatever various reasons, the SSDS install, you know, wasn't feasible. And, you know, it is possible, if there's indoor air impact in the building, to install, like, standalone carbon filtration units. But they're not as effective as an SSDS to, you know -- kind of clearing the air. They are, you know -- there's maintenance associated with it, regular carpet change outs.

They are, you know, not as effective, and you know, they can be loud and cumbersome. You know, I -- I got a building, you know, in the Bronx that's, you know, got -- got issues going on, and they got, you know, these massive 6-foot-high, you know, units

throughout the building. And it is cumbersome and costly to keep those running and -- and -- and maintain them and you know -- whereas it's, you know, not as -- as effective as an SSDS solution.

UNIDENTIFIED SPEAKER: Thanks.

MS. DRABEK: Any other questions, thoughts, comments?

JOHN: Thanks for doing this, guys. Appreciate it.

MS. DRABEK: Yeah. Thank you-all so much for coming.

MR. BRENNAN: Thank you, everyone, for coming.

MS. DRABEK: We'll be in touch about the next steps when we release the final plan.

JOHN: Yeah.

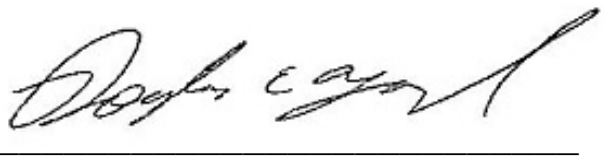
MS. VAUGHN: Thanks, everyone.

(End of Video Recording.)

CERTIFICATE

I, Doug Yarborough, do hereby certify that I was authorized to and transcribed the foregoing recorded proceedings, and that the transcript is a true record, to the best of my ability.

Dated this 30th of April, 2024.



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