

REMEDIATION FOR STATE SUPERFUND SITE: Former Melrose Avenue Dry Cleaner Site

The New York State Departments of Environmental Conservation (DEC) and Health (DOH) are working together to protect public health and the environment in the South Bronx Melrose community. The DEC, working closely with the DOH, has designed a Cleanup Program to treat the groundwater and the potential for soil vapor contamination related to the Former Melrose Avenue Dry Cleaner Site, located at 753 Melrose Avenue, Bronx, NY (“Site”). Historic use of the Site as a dry cleaner resulted in contaminated groundwater and soil vapor at the Site and in limited areas south of the Site. Prior investigations have identified the approximate extent of groundwater and soil vapor contamination; additionally, prior investigations indicate that soil contamination is not present at the site and is no longer an environmental concern.

This community update provides details on the completed, ongoing, and upcoming activities associated with the Cleanup Program, which commenced in April 2024 and is designed to address remaining groundwater contamination related to the Site.

The most recent community update was provided in November 2023 and can be found, with other Key Site documents (e.g., prior DEC communications and environmental reports), at:

<https://www.dec.ny.gov/data/DecDocs/203009/>.

DEC also is implementing an Enhanced Community Engagement Plan (ECEP) for the Site. This plan was developed in consultation with DOH, the DEC Office of Environmental Justice, and the DEC Division of Communications, Education, and Engagement. It serves to identify the project, clean-up activities and requirements, project team members, and community surrounding the site. The ECEP can be found at:

<https://www.dec.ny.gov/data/DecDocs/203009/>

Site History

The Former Melrose Avenue Dry Cleaner Site previously included a structure that had been utilized as a dry cleaner between approximately 1950 and 1968. The Site is currently a vacant lot covered with crushed stone and surrounded by a chain link fence. The former dry cleaner operations have been identified as a potential source of contamination to groundwater and soil vapor at the Site and off-Site structures. The Site is listed in the registry of inactive hazardous waste disposal sites with Site No. 203009 and is included in the NY State Superfund Program.

Record of Decision

In October 2022, the DEC issued a Record of Decision (ROD) for the Site, in accordance with applicable state regulations. The ROD presents the selected remedy (aka “Cleanup Program”) which was designed to target and treat the *contaminants of concern* in groundwater and soil vapor. Green remediation principles and techniques are included in the ROD to the greatest extent feasible. The ROD can be found at:

<https://www.dec.ny.gov/data/DecDocs/203009/>.

CONTAMINANTS OF CONCERN

A *contaminant of concern* is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action.

Prior to issuing the ROD, the DEC worked closely with the DOH to inform and engage the community regarding the Site history and proposed Cleanup Program, as per the following timeline:

1. May 10, 2022: DEC issued the Proposed Remedial Action Plan and initiated the public comment period. The public comment period is typically

- 30-days and was extended to approximately two months to allow for greater public input.
2. May 25, 2022: DEC, in consultation with DOH, hosted a public meeting regarding the Proposed Remedial Action Plan.
 3. July 25, 2022: End of public comment period. During this comment period, the DEC and DOH received questions and comments from community members. A Responsiveness Summary, which memorializes comments and responses received during the public meeting and throughout the comment period, is included in the ROD.

A full description of the selected remedy is available in the ROD and summarized in the November 2023 community update, both available at:

<https://www.dec.ny.gov/data/DecDocs/203009/>.

A brief description is included below.

Overview of Cleanup Program

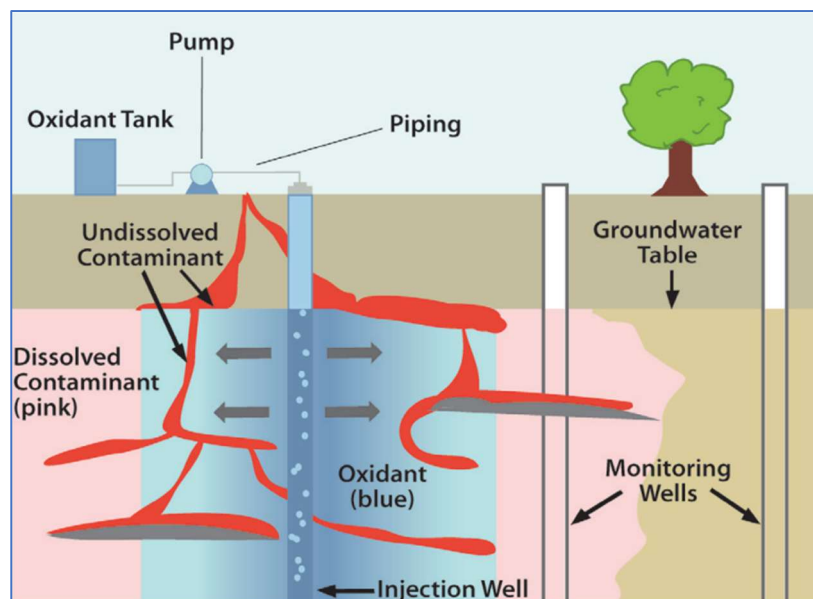
The selected remedy (aka “Cleanup Program”) includes:

- In-situ Chemical Oxidation (ISCO), including Pre-Design Investigation and Pilot-Scale Study,
- Monitored Natural Attenuation (MNA),
- Vapor Intrusion Evaluation, and
- Implementation of a Site Management Plan.

In-Situ Chemical Oxidation

In-situ chemical oxidation (ISCO) utilizes chemicals called “oxidants” to break down contaminants in groundwater to nonhazardous or less toxic compounds that are more stable, less mobile, or inert. “In-situ” remediation is conducted in place, which effectively treats contaminated groundwater with minimal disruption to the Site and surrounding area. A *Citizen’s Guide to In Situ Chemical Oxidation* can be accessed on the United States Environmental Protection Agency’s (US EPA) website: https://archive.epa.gov/ada/web/pdf/a_citizens_guide_to_in_situ_chemical_oxidation.pdf.

It is estimated that the chemical oxidant will be injected as part of three separate events over three years (i.e., one injection event per year).



The graphic above is a generic depiction (prepared by the US EPA) of ISCO injections. ISCO is the process where chemical oxidants are injected into groundwater to break down contaminants. Additional details on ISCO injections can be accessed on the US EPA website:

https://archive.epa.gov/ada/web/pdf/a_citizens_guide_to_in_situ_chemical_oxidation.pdf.

Pre-Design Investigation and Pilot-Scale Study

Prior to implementation of the ISCO program, a Pre-Design Investigation is required to confirm the findings of prior environmental investigations. A Pilot-Scale Study is recommended to assist in the design of the ISCO program (i.e., to select the oxidant and amount of oxidant needed to break down the contaminants). **The Pre-Design Investigation and Pilot-Scale Study commenced in April 2024 and are currently underway (additional details are presented in the next section).**

Post-Injection Monitoring

Following each ISCO injection event, groundwater samples will be collected within the treatment zone to monitor the breakdown of *contaminants of concern*. Other aboveground disruption will be minimal since the groundwater cleanup process is occurring underground.

Monitored Natural Attenuation

Following the implementation of the ISCO program, contaminants may be observed at lower concentrations in groundwater. Any remaining contamination in groundwater will be addressed via monitored natural attenuation (MNA), which is the naturally-occurring breakdown of contaminants in groundwater over time.

During the MNA period, groundwater monitoring and reporting will be conducted on a quarterly basis for two years, followed by annual reporting thereafter until remedial goals are met.

Vapor Intrusion Evaluation

Previous investigations were conducted in 2017 and 2023 to evaluate if soil vapor intrusion, a process where contaminants in groundwater impact indoor air quality, was occurring in buildings located near the Site. Several buildings were not accessible during the initial investigations due to unresponsiveness from building owners and/or managers. Beginning in the Fall 2024, the DEC will work closely with the DOH and

community stakeholders to obtain access to conduct a vapor intrusion evaluation in additional buildings in the 2024-2025 hearing season.

Implementation of Site Management Plan

A Site Management Plan will be issued for the Site to ensure safe use and continued effectiveness of the remedy, and will include the implementation of established institutional controls, such as Article 141 of the DOH code. Additionally, future development at the Site will require evaluation of the potential for soil vapor intrusion and may require soil vapor controls.

Completed, Ongoing, and Upcoming Work (April 2024 to November 2024)

Beginning in April 2024, DEC in consultation with the DOH and environmental technicians from TRC Engineers, Inc. (TRC), mobilized to the Site to implement the Cleanup Program. A brief timeline of the completed, ongoing, and upcoming work (through November 2024) is included below:

- 4/22/2024 and 4/29/2024: Inspection of the existing groundwater monitoring well network on Melrose Avenue between 154th and 157th Street. These wells were installed during prior environmental investigations and the inspection was completed as part of the Pre-Design Investigation.
- 4/23/2024: An engineering evaluation of the sub-slab depressurization system (SSDS; air treatment system) operating at the Police Service Area (PSA) 7 Building was conducted as part of the Pre-Design Investigation.
- 5/8/2024 to 5/15/2024: Collection of groundwater samples for laboratory analysis from target wells in the existing monitoring well network as part of the Pre-Design Investigation. The purpose of the sampling event was to confirm the findings of prior environmental investigations.
- 7/29/2024 to 8/9/2024: Installation of three (3) ISCO injection wells for the Pilot-Scale Study and one (1) additional monitoring well south of the existing monitoring well network (near Melrose

Avenue and 153rd Street) for the Pre-Design Investigation. Soil and groundwater samples collected from the ISCO injection wells will be submitted for laboratory analysis to identify the oxidants for the ISCO program. The purpose of the additional monitoring well is to ensure the limits of groundwater contamination are fully defined.

- 8/8/2024: Enhanced Community Engagement Plan distributed.

- Week of 8/26/2024 (tentative): Collection of groundwater samples for laboratory analysis from newly installed wells.
- September to November 2024: DEC, in consultation with DOH and TRC, will evaluate the findings of the Pre-Design Investigation and the Pilot-Scale Study well sampling event to design the ISCO Pilot-Scale Study. The Pilot-Scale Study will be implemented in Spring 2025.

Prior to the implementation of the Pilot-Scale Study, the DEC will provide to the community a notification of the scope of work and anticipated timeline.

FREQUENTLY ASKED QUESTIONS

- What can community members expect to see or hear during implementation of the Cleanup Program? During the implementation of the Pre-Design Investigation and ISCO Pilot-Scale Study Program, community members may see or hear drilling equipment and tanker trucks near the Site. Air monitoring will be conducted during drilling activities to ensure there are no impacts to air quality. Community members may also see environmental technicians collecting groundwater samples from wells located near the Site throughout the implementation of the Cleanup Program to monitor remedial progress.
- Will my drinking water be impacted by the ISCO Program? No, the ISCO program will not impact the public water supply in the area. Under Article 141 of the NYC Department of Health code (NYCDOH), groundwater may not be utilized for potable/drinking purposes (i.e., not ingested) in the vicinity of the Site. The community's drinking water comes from a separate source.
- Where can I find information about prior Environmental Investigations? Reports related to prior investigations can be found at: <https://www.dec.ny.gov/data/DecDocs/203009/>. Prior environmental investigations conducted at the Site and adjacent properties generally include the research of historical information; collection of soil, groundwater, and soil vapor samples; and evaluation of Ecological and Human Health Exposure Assessments. The major findings of prior environmental investigations are briefly summarized below:
 - Remediation of soil is not required. On-Site soil meets the standards for residential use as established by the DEC and there are no significant off-Site impacts in soil attributable to the Site.
 - A sub-slab depressurization system (SSDS) was installed at the NYPD PSA 7 building to remove and treat impacted soil vapor to prevent effects to indoor air quality. The SSDS was installed based on the findings of an SVI Investigation Report (2017). As noted below, further SVI Investigations indicate that soil vapor intrusion is not occurring in additional off-Site structures.
 - Soil vapor intrusion, which may impact air quality, is not occurring at remaining off-Site structures as per a 2023 SVI Investigation. The 2023 SVI Investigation was conducted at accessible structures located south of the Site. Outreach efforts included access request letters sent via overnight mail, phone calls conducted by DOH, and a bilingual community canvass (English and Spanish). Based on the findings of the 2023 SVI Investigation, no further actions are recommended at the structures sampled as part of the investigation.
- How can I get future updates on the Cleanup Project? Community members can sign up for email notifications related to this Cleanup Project here: <https://dec.ny.gov/environmental-protection/site-cleanup/regional-remediation-project-information/environmental-cleanup-email-newsletters>. The DEC, in consultation with the DOH, will continue to provide community updates regarding the Cleanup Project including newsletters and public meetings (as necessary). Finally, for project-specific questions, community members can contact the DEC and DOH project managers directly (information below).

Ongoing Community Engagement

DEC and DOH experts will continue to be available to answer questions from the community. Please see “Who to Contact” below for key points of contact.

WHO TO CONTACT

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