

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 completed multiple environmental investigations to identify the extent of 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 indicate that soil contamination is not present and is no longer an environmental concern.

This community update provides details on the remedy selected in the October 2022 Record of Decision to address remaining groundwater contamination related to the Site.

Key Site documents, including prior NYSDEC communication and environmental reports, 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.

Summary of Environmental Investigations

Prior environmental investigations have been conducted at the Site and adjacent properties. Environmental investigations generally include the research of historical information; collection of soil, groundwater, and soil vapor samples; and evaluation of Ecological and Human Health Exposure Assessments. As part of prior environmental investigations, analytical data for soil, soil vapor, indoor air, and groundwater were collected. Reports related to prior investigations can be found at:
<https://www.dec.ny.gov/data/DecDocs/203009/>

The findings of the prior environmental investigations are 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.
- An interim remedial measure was required and implemented at one structure located south of the Site. A 2017 SVI Investigation Report (2017) indicated that soil vapor intrusion, a process where contaminants in groundwater impact indoor air quality, was occurring at the NYPD Police Service Area 7 (PSA 7) building. As a result, a sub-slab depressurization system (SSDS) was installed to remove and treat impacted soil vapor to prevent effects to indoor air quality. 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.

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.

Record of Decision – Selected Remedy

On May 10, 2022, the DEC in consultation with the DOH issued the Proposed Remedial Action Plan for the Site and opened a 30-day public comment period. A public meeting was held on May 25, 2022 and the public comment period was extended to July 25, 2022. During this comment period, the DEC and DOH received questions and comments from community members.

In October 2022, the DEC issued a Record of Decision (ROD) for the Site. The ROD presents the selected remedy for the Site, in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. The proposed remedy was selected to target and treat the *contaminants of concern* in groundwater and soil vapor. The ROD also includes a Responsiveness Summary which memorializes comments and responses received during the public

meeting and throughout the comment period. The remedy will include green remediation principles and techniques to the extent feasible. The ROD can be accessed at:

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

The DEC and DOH have selected a contractor to implement the remedy. The selected remedy includes:

- In-situ chemical oxidation to treat contaminants in groundwater,
- Monitored Natural Attenuation (MNA),
- Vapor Intrusion Evaluation (completed, no further action required), and
- Implementation of a Site Management Plan.

The implementation of the remedial program is expected to begin in the summer of 2024.

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

As part of the ISCO program, a series of injection wells will be installed (via drilling rig) at and near the Site. Chemical oxidant will be pumped through the injection wells to treat the contaminated groundwater. 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

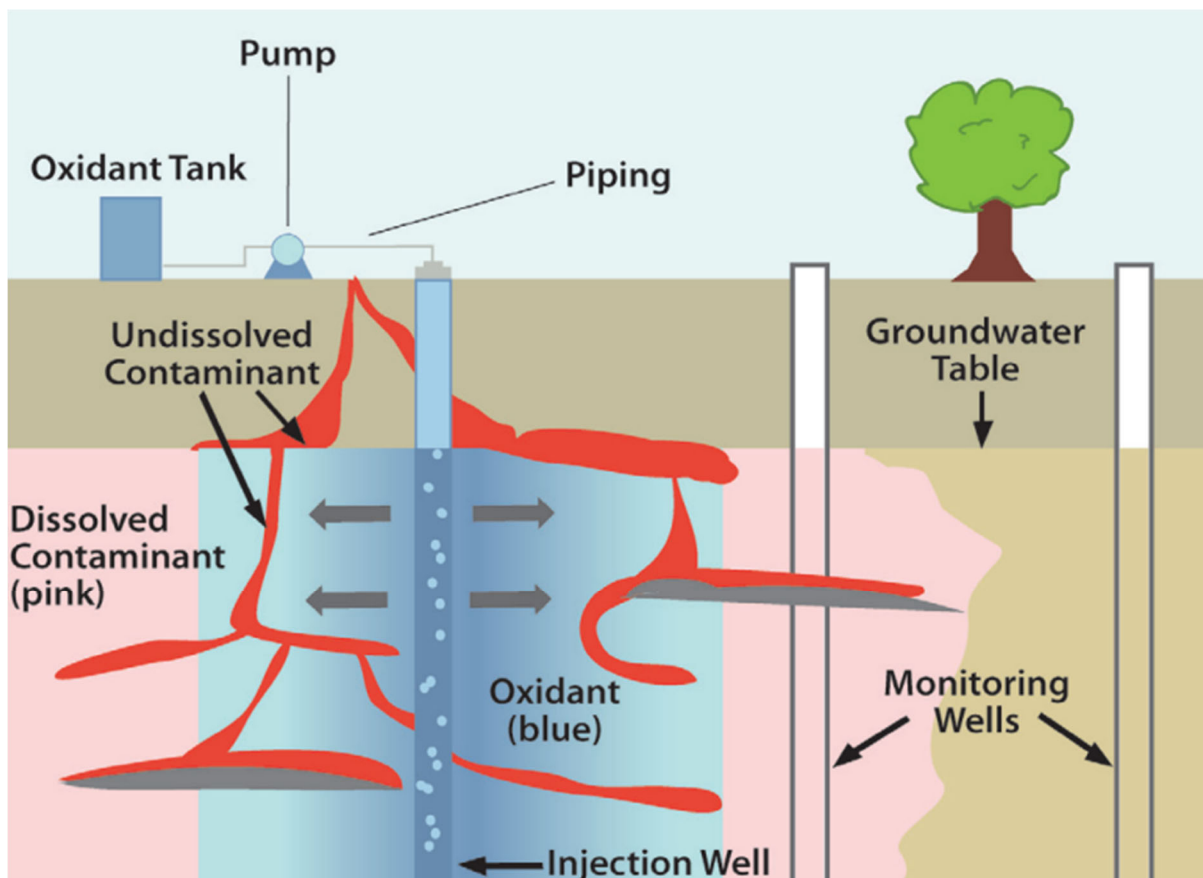
year). During injection activities, community members may see or hear drilling equipment and tanker trucks near or at the Site.

Prior to implementation of the ISCO program, a laboratory and on-site pilot scale study will be conducted to design the program (i.e., to select the oxidant and amount of oxidant needed to break down the contaminants).

Following each 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.

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

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). MNA is the observation of the naturally-occurring breakdown of contaminants in groundwater over time. The MNA period will begin after the ISCO program, which is expected to begin in 2024 and continue through at least 2027.

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.

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 NYSDOH code. Additionally, future

development at the Site will require evaluation of the potential for soil vapor intrusion and may require soil vapor controls.

Remediation Timeline

The proposed timeline for remedial activities discussed in the newsletter is summarized below:

- 2024 – 2027: Implementation of the ISCO Program. ISCO program consists of the installation of injection wells, injection of chemical oxidant into the groundwater, and collection of groundwater samples to monitor remedial progress.
- 2027 – Completion of Remedial Goals: Monitored Natural Attenuation Period. MNA consists of the collection of groundwater samples to monitor remedial progress. MNA period will continue until remedial goals are met.

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.

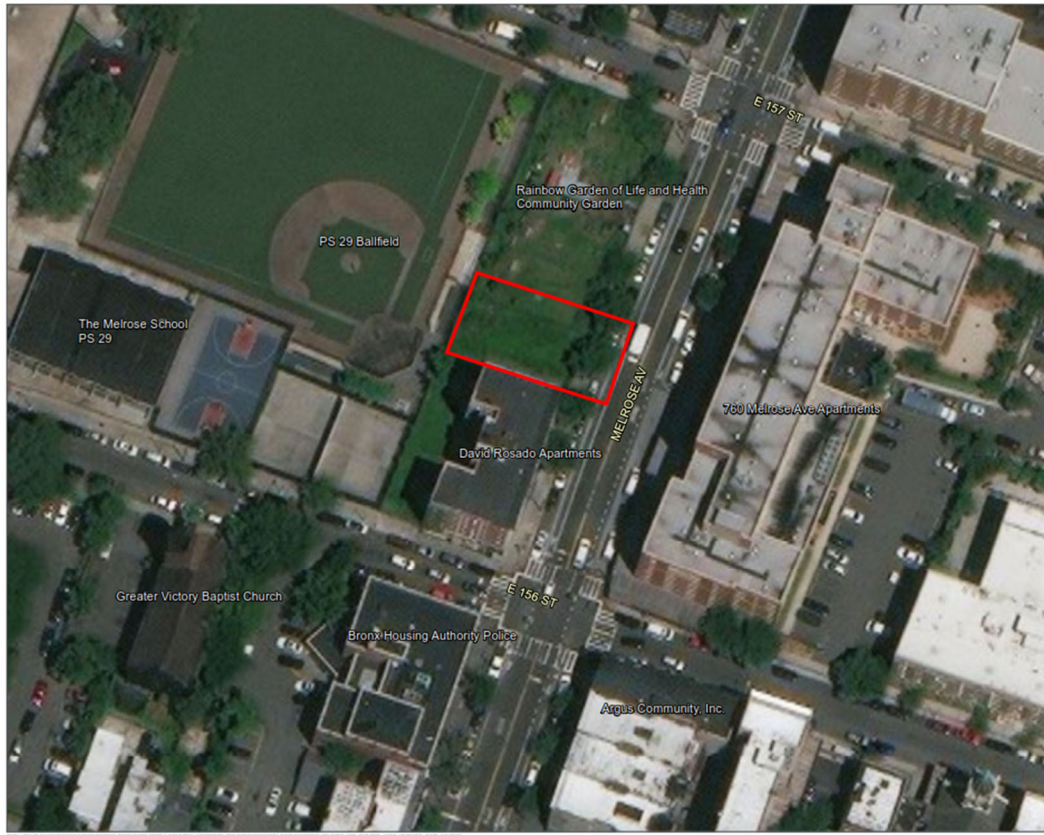
WHO TO CONTACT

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LEGEND
■ Site Boundary

Service Layer Credits: Esri, HERE, DeLorme, Mapbox, ©
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DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SITE MAP
FORMER MELROSE AVENUE DRY CLEANERS
753 MELROSE AVENUE, BRONX, NY
SITE NO. 203009

