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# EXPLANATION OF SIGNIFICANT DIFFERENCE

## ZIP ZIP MINI MARKET SITE



Department of  
Environmental  
Conservation

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City of Syracuse / Onondaga County / Site No. B00075 / May 2026

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

### 1.0 Introduction

The purpose of this notice is to describe the progress of the cleanup at the Zip Zip Mini Market Site and to inform the community about a change in the Site remedy. The site is located at 1410 Erie Boulevard East, Syracuse, Onondaga County. On March 30, 2020, the New York State Department of Environmental Conservation (DEC) in consultation with the New York State Department of Health (DOH) issued a Record of Decision (ROD) which selected a remedy to cleanup the site.

The remedy selected for the site as documented in the ROD included:

- A remedial design program to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program.
- A site cover to allow for future commercial or industrial use of the site.
- In-situ chemical oxidation (ISCO) to treat contaminants in groundwater including an on-site pilot study to determine final design specifications.
- Imposition of an Institutional Control on the site in the form of an environmental easement restricting the use of the site to commercial use as defined in Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York Part 375 (Part 375).
- Development of a Site Management Plan (SMP) including an institutional and engineering control plan.

As part of the pilot study required for the design of the ISCO groundwater treatment element of the remedy, a series of percolation tests were performed to determine the best delivery method for injecting the ISCO product into the subsurface. Based on the Pilot Study Percolation Test Results report, it was determined that groundwater injections are not feasible at the site, and that injections posed greater risk than the potential remedial benefit. Further explanation is provided below in Section 4.1, and the full details can be found within the report that is located on DECInfo Locator, see link below. Based on this, groundwater injections will not be performed at the site and remaining groundwater contamination will be remediated through monitored natural attenuation.

This Explanation of Significant Difference (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

DECInfo Locator – Web Application  
<https://www.dec.ny.gov/data/DecDocs/B00075/>

City of Syracuse  
Attn: Owen Kerney  
201 East Washington Street, Room 512  
Syracuse, NY 13202  
Phone: (315) 448-8110

Although this is not a request for comments, interested persons are invited to contact DEC's Project Manager for this site to obtain more information or have questions answered.

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## **2.0 Site Description and Original Remedy**

### **2.1 Site History, Contamination, and Selected Remedy**

The Zip Zip Mini Market Site is a 0.5-acre site located in an urban area. The site is located at 1410 Erie Boulevard East, Syracuse, Onondaga County. The site is bordered by Erie Boulevard to the north, a commercial warehouse to the east, a credit union to the south, and South Beach Street to the west. The site is relatively flat and has one building that is partially located on-site. The building encroaches onto the eastern portion of the site. The site is mostly made up of hard compact soil and gravel. The site is currently being used as a parking area and is zoned for commercial use. The surrounding parcels are currently used for a combination of commercial, light industrial, and utility rights-of-way.

Until 1997, the site was used as a retail gasoline business prior to a fire that destroyed the service building. Contamination at the site is believed to be the result of four underground storage tanks being left at the property without being closed properly.

A remedial investigation was conducted to define the nature and extent of contamination resulting from previous activities at the site with the Remedial Investigation Report submitted in April 2019. Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides.

Nature and Extent of Contamination:

Surface Soils:

One VOC, acetone, was detected at a concentration of 0.056 ppm which exceeded the Part 375 unrestricted use soil cleanup objective (SCO) of 0.05 ppm. This detection was, however, below the Part 375 commercial use SCO of 500 ppm.

Benzo[a]pyrene was detected in the northeast portion of the site at a maximum concentration of 7 ppm which exceeds its commercial use SCO of 3.7 ppm. Several other SVOCs were detected at concentrations that exceeded their unrestricted use SCOs but not their commercial use SCOs

One pesticide, 4,4'-DDT, was detected in a surface soil sample at a concentration of 0.0094 ppm which exceeds the Part 375 unrestricted use SCO of 0.0033 ppm but is less than the Part 375 commercial use SCO of 27 ppm.

No PCBs were identified in the surface soil samples.

One metal, lead, at a maximum concentration of 854 ppm, exceeded its Part 375 restricted residential SCO of 400 ppm but was less than the commercial SCO of 1000 ppm. Zinc was detected at a maximum concentration of 569 ppm, exceeding the Part 375 unrestricted use SCO of 109 ppm.

#### Subsurface Soils:

No VOCs were detected in subsurface soil samples at concentrations exceeding their respective commercial use SCOs for the protection of public health. There were several compounds including acetone at a maximum of 0.11 ppm, benzene at a maximum of 1.1 ppm, ethylbenzene at a maximum of 3.6 ppm, methylene chloride at a maximum of 0.068 ppm, and xylenes (total) at a maximum of 20 ppm, that were detected above their respective Part 375 unrestricted use SCOs. Benzene, ethylbenzene and xylenes (total) also exceeded their respective Part 375 Protection of Groundwater SCOs and were detected in groundwater at concentrations that exceeded their groundwater standard.

No SVOCs were detected in subsurface soil samples at concentrations exceeding their respective commercial use SCOs. There were several compounds, including benzo(b)fluoranthene at a maximum concentration of 1.1 ppm and indeno(1,2,3-cd)pyrene at a maximum concentration of 0.56 ppm, that were detected above their respective Part 375 unrestricted use SCOs.

No pesticides were detected in subsurface soil samples at concentrations exceeding their unrestricted use SCOs.

No metals were detected in subsurface soil samples at concentrations exceeding their respective commercial use SCOs. There were two compounds including mercury at a maximum concentration of 0.19 ppm and nickel, at a maximum concentration of 43.2 ppm, that were detected above their respective Part 375 unrestricted use SCOs.

#### Groundwater:

No metals were detected above their respective groundwater standards.

VOCs detected in groundwater above ambient quality standards include benzene at a maximum concentration of 120 parts per billion (ppb) with a DEC Ambient Water Quality Standard (AWQS) Class GA of 1 ppb, ethylbenzene at a maximum concentration of 83 ppb with an AWQS Class GA of 5 ppb, isopropylbenzene at a maximum of 6.4 ppb with an AWQS Class GA of 5 ppb, methyl tert-butyl ether at a maximum of 73 ppb with an AWQS Class GA of 10 ppb, toluene at a maximum of 48 ppb with an AWQS Class GA of 5 ppb, and xylenes (total) at a maximum of 440

ppb with an AWQS Class GA of 5 ppb. Most of the VOC groundwater impacts were located in the northern portion of the site, except for methyl tert-butyl ether, which was detected throughout the site.

SVOCs detected in groundwater above their respective standards include 2,4-dimethylphenol at a maximum of 6.4 ppb with an AWQS Class GA of 1 ppb, naphthalene at a maximum of 17 ppb with an AWQS Class GA of 10 ppb, and phenol at a maximum of 3.2 ppb with an AWQS Class GA of 1 ppb. All the SVOC groundwater impacts were located in the northern portion of the site.

Groundwater flow at the site is generally to the North towards Erie Boulevard East. There was no groundwater contamination detected downgradient of the site on the north side of Erie Boulevard.

The major components of the 2020 ROD were as follows:

## 1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. This will also include an assessment to determine if any contamination is migrating off-site in soil, or groundwater and would include sampling of the building that is partially on-site for soil vapor intrusion, pending permission from the building's owner. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

## 2. Cover System

The site will be regraded, and a site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot of soil placed

over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

### 3. Groundwater Remedies

In-situ chemical oxidation will be implemented to treat contaminants in groundwater. A chemical oxidant will be injected into the subsurface to destroy the contaminants in an approximately 300 square foot area located in the northern portion of the site where gasoline-related compounds were elevated in the groundwater. The method and depth of injection will be determined during the remedial design. Monitoring will be required upgradient, downgradient, and within the treatment zone.

Prior to the full implementation of this technology, laboratory and on-site pilot scale studies will be conducted to more clearly define design parameters. Between the pilot and the full-scale implementations, it is estimated that one shallow and one deep injection point will be installed. It is estimated that the chemical oxidant will be injected during two separate events over several months.

### 4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

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

### 5. Site Management Plan

A Site Management Plan is required, which includes the following:

- A. An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

- Institutional Controls:
  - The Environmental Easement discussed in Paragraph 4 above.
- Engineering Controls:
  - The soil cover discussed in Paragraph 2 and injections as discussed in Paragraph 3.

This plan includes, but may not be limited to:

- An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- Descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- A provision for evaluation of the potential for soil vapor intrusion for any new or occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access controls and DEC notification; and
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
  - Monitoring of the groundwater to assess the performance and effectiveness of the remedy; and
  - A schedule of monitoring and frequency of submittals to the DEC.

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

- Procedures for operating and maintaining the remedy;
- Maintaining site access controls and DEC notification; and
- Providing the DEC access to the site and O&M records.

### **3.0 Current Status**

The cover system as described in Element 2 of the ROD (as listed above) is currently in the final design phases with construction anticipated in the spring of 2026.

A pilot study percolation test using water was completed in the summer of 2025 for the groundwater remedies described in Element 3 of the ROD (as listed above). A Pilot Study Percolation Test Results report documenting the results of the study has been developed and is available on DECInfo Locator, <https://www.dec.ny.gov/data/DecDocs/B00075/>.

Prior to the percolation test, groundwater samples were taken to determine current concentration of contaminants in the groundwater to estimate the amount of ISCO product that would be needed. Sample results showed a general reduction of site contaminants of concern from previous rounds of sampling. For example, toluene had a maximum concentration of 37 ppb and xylenes (total) had a maximum concentration of 71 ppb during this latest round of sampling compared to 48 ppb for toluene and 440 ppb for xylenes (total) during the previous sampling

event. These results show over 20 percent reduction for toluene and over 80 percent reduction for xylenes (total) and indicate that some natural attenuation is already occurring at the site. This natural degradation is not uncommon for petroleum contamination like the compounds present at the Zip Zip Mini Market Site.

## **4.0 Description of Significant Difference**

### **4.1 New Information**

Based on the Pilot Study Percolation Test Results report, it was determined that groundwater injections are not feasible at the site. Full details can be found within the report but the major factors contributing to this decision include:

- The inability to prevent the flow of the oxidizer through the gravel lens and beyond the targeted treatment zone. This means potential distribution of the oxidizer outside intended treatment zones, including the underground utility corridors located beneath Erie Boulevard.
- ISCO products have the potential to oxidize metal pipe/conduit, and the presence of an older cast iron water main within the right-of-way with the City of Syracuse would be at risk of oxidization.
- Given the soil types present at the site, conducting the injections would pose a substantial risk to infrastructure and would provide limited potential for remedial benefit given the moderate-to-low levels and relatively limited extent of groundwater contamination.
- Given the results of the latest round of groundwater sampling, some natural attenuation is already occurring at the site.

Work performed to date during the pilot study at the site meets the intent of the remedial action objectives presented in the ROD and further remedial injection efforts are not practicable based on the low permeability of the targeted treatment zone.

### **4.2 Comparison of Changes with Original Remedy**

Groundwater injections will not be performed at the site and remaining groundwater contamination will be addressed through a monitored natural attenuation (MNA) program. Groundwater will be monitored for site-related contamination and for MNA indicators which will provide an understanding of the breakdown of the contamination. It is anticipated that contamination will decrease by an order of magnitude in a reasonable period of time. Reports of the attenuation will be provided at 5 and 10 years, and active remediation will be proposed if monitoring suggests that natural processes alone will not address the contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that groundwater extraction and treatment would be the expected contingency remedial action. This contingency technique would not involve injections that could potentially harm subsurface utilities.

The modified remedy is equally protective of public health and the environment as the original remedy, but will result in less short-term impacts, potentially significantly less if infrastructure

were damaged by the injections, which is a legitimate concern given the site proximity to underground utility corridors. The site and the surrounding areas are served by public water supply that is not affected by this contamination. Schedule and More Information

## 5.0 Schedule and More Information

DEC will develop the final remedial design work plan and the activities detailed in the work plan will be implemented. When construction activities are complete, DEC will develop the site management plan and final engineering report that summarizes construction activities.

DEC will keep the public informed throughout the cleanup of the site.

If you have questions or need additional information you may contact any of the following:

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Division of Environmental Remediation

## **DECLARATION**

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