

# DECISION DOCUMENT

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Parkway Plaza Cleaners Site  
Brownfield Cleanup Program  
Canandaigua, Ontario County  
Site No. C835028  
June 2022



**Department of  
Environmental  
Conservation**

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

# DECLARATION STATEMENT - DECISION DOCUMENT

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Parkway Plaza Cleaners Site  
Brownfield Cleanup Program  
Canandaigua, Ontario County  
Site No. C835028  
June 2022

## **Statement of Purpose and Basis**

This document presents the remedy for the Parkway Plaza Cleaners Site a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Parkway Plaza Cleaners Site site and the public's input to the proposed remedy presented by the Department.

## **Description of Selected Remedy**

The elements of the selected remedy are as follows:

### 1. Remedial Design

A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. 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 gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling, and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes that balance ecological, economic, and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

## 2. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for restricted commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

## 3. Groundwater - In-situ Chemical Reduction and Enhanced Bioremediation

In-situ enhanced chemical reduction and biodegradation will be implemented to treat chlorinated volatile organic compounds, PCE and TCE in the soil and groundwater. Zero-Valent Iron (ZVI) and Emulsified Vegetable Oil (EVO) will be injected adjacent to the rear portion and downgradient of the remaining source area located under the Former Parkway Cleaners (AOC 1). In-situ enhanced biodegradation will be employed to control plume migration from the site by treating cis-DCE and VC in groundwater near the southern property line (AOC 3). The biological breakdown of contaminants through anaerobic reductive dichlorination will be enhanced by the injection of Emulsified Vegetable Oil (EVO) to control plume migration from the site. Groundwater monitoring will be conducted 6, 9, and 12 months after remedial reagent injection at up-gradient and down-gradient locations, and within the treatment zone to assess the performance and effectiveness of the remedy. Additionally, monitoring of PFAS and PFOA will occur concurrently to assess plume migration from the site.

## 4. Soil Vapor

A Sub-Slab Depressurization System was installed in the Former Parkway Cleaners tenant space and will be maintained to mitigate potential exposure to site related contaminants which may result from soil vapor intrusion. The mitigation system eliminates exposure by preventing contaminated soil vapor from entering the on-site building(s). It extracts sub-slab vapors, and actively vents to the outside air. Communication testing has been performed to verify that the radius of influence of the system provides adequate venting for all on-site structures. Soil vapor / gas monitoring will be conducted adjacent to AOC 1 in conjunction with groundwater monitoring events to evaluate the potential for generation of daughter products in the vapor pathway due to incomplete in-situ reduction or degradation of contaminants. There is a provision for sub-slab and indoor air monitoring in all tenant spaces if elevated levels of contaminants in soil vapor / gas are generated during the in-situ remediation and implementing actions recommended to address exposures related to soil vapor intrusion.

## 5. Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted commercial cleanup at a minimum.

## A. 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 Department 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 restricted 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 Department approved Site Management Plan.

## B. Site Management Plan

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

1. 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 above.

Engineering Controls: The soil cover discussed in Paragraph 2 and the sub-slab depressurization system discussed in Paragraph 4 above.

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;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the Former Parkway Cleaners building and adjacent tenant spaces;
- a provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures.
- a provision for removal or treatment of the source area located under the rear portion of the Former Parkway cleaners tenant space if and when the building is demolished;
- 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 occupied

buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- a provision that should a building foundation or building slab be removed in the future, access to soils of unknown chemical quality will be restricted to reduce the risk of potential exposure and contaminant migration until a cover system consistent with that described in Paragraph 2 above is established in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

2. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater to assess the performance and effectiveness of the remedy and plume migration from the site;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- A provision for Sub-slab and indoor air monitoring in tenant spaces if elevated levels of contaminants in soil vapor / gas are generated during the in-situ remediation and implementing actions recommended to address exposures related to soil vapor intrusion.

3. 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;
- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.

### **Declaration**

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

*Michael J Cruden*

6/8/2022

Date

Michael Cruden, Director  
Remedial Bureau E

# DECISION DOCUMENT

Parkway Plaza Cleaners Site  
Canandaigua, Ontario County  
Site No. C835028  
May 2022

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## **SECTION 1: SUMMARY AND PURPOSE**

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

## **SECTION 2: CITIZEN PARTICIPATION**

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

DECInfo Locator - Web Application  
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C835028>

Wood Library  
Attn: Jenny Goodemote  
134 North Main Street  
Canandaigua, NY 14424  
Phone: 585-394-1381

## **Receive Site Citizen Participation Information By Email**

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

### **SECTION 3: SITE DESCRIPTION AND HISTORY**

**Location:** The former Parkway Plaza Cleaners Site is located within an occupied strip mall at 39 Eastern Boulevard, Canandaigua, Ontario County, tax parcel #84.18-1-6.111.

**Site Features:** The site is 0.528 acres, most of which is covered by a one-story building, paved areas and a narrow-vegetated area along the southern property line. In addition to the former dry cleaners, adjacent tenant spaces are also included in the site.

**Current Zoning/Use(s):** The site is currently zoned for commercial use and is occupied. Surrounding land uses include commercial and residential. The former dry-cleaner is currently a coin operated laundromat with restaurants on both sides. The adjoining residential property to the south is the completed Canandaigua Multi Brownfield Site #C835025 with institutional and engineering controls including a site management plan. A public water supply serves the area.

**Historical use(s) and source(s) of contamination:** Chlorinated solvents have been detected in site soil, soil vapor and groundwater. The contamination is attributed to the operation of dry-cleaning establishments during the property's history.

**Site Geology/Hydrogeology:** Site soils include sands, silt and clay. Fill material is also present across much of the site. Groundwater flow is generally toward the southeast. The average depth to groundwater at the site is 5 feet below grade.

A site location map is attached as Figure 1.

### **SECTION 4: LAND USE AND PHYSICAL SETTING**

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

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for

the site contaminants is available in the RI Report.

## **SECTION 5: ENFORCEMENT STATUS**

The Department and Parkway Plaza Limited Partnership, entered into a Brownfield Cleanup Agreement in 2018 after the termination of the Voluntary Cleanup Program. Parkway Plaza Limited Partnership is a Volunteer and does not have an obligation to address off-site contamination.

The Department will seek to identify any parties (other than the Volunteer) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought, or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

## **SECTION 6: SITE CONTAMINATION**

### **6.1: Summary of the Remedial Investigation**

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- indoor air
- sub-slab vapor

### **6.1.1: Standards, Criteria, and Guidance (SCGs)**

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

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

### **6.1.2: RI Results**

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

cis-1,2-dichloroethene	vinyl chloride
tetrachloroethene (PCE)	perfluorooctanoic acid
trans-1,2-dichloroethene	perfluorooctane sulfonic acid
trichloroethene (TCE)	

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor

### **6.2: Interim Remedial Measures**

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

#### **IRM - Soil Vapor Mitigation - Interim Site Management Plan**

A Sub-Slab Depressurization System (SSDS) was installed in 2019 and provides complete coverage of the former Parkway Cleaners tenant space to address potential soil vapor intrusion of volatile organic compounds in sub-slab soil vapor. An Operations Maintenance and Monitoring (OM&M) plan was developed and implemented which ensures that the sub-slab

depressurizations systems remain effective and operational. An ISMP was approved in 2019 including routine inspections of the SSDS system and floor slab is being implemented at the Former Parkway Cleaners tenant space. Corrective measures were performed to appropriately manage impacted soils and restore the concrete slab during 2019 renovations and subsequent SSDS installation.

### IRM - Soil Excavation and Tank Removal

An IRM was conducted in 2001 during the Voluntary Cleanup Program that removed 517 tons of contaminated soil adjacent to the rear alcove of the Former Parkway Cleaners. Soil was excavated to meet TAGM 4046 soil cleanup objectives where feasible. The extent of removal was limited by building foundations and buried utilities leaving inaccessible ground residual contamination below existing and restored asphalt hard cover. Additionally, a 100-gallon PCE storage tank was removed from the roof at the rear of the Former Parkway Cleaners.

### **6.3: Summary of Environmental Assessment**

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

#### Nature and Extent of Contamination:

The remedial investigation defined the nature and extent of contamination in soil, groundwater, soil vapor and indoor air at the site. Volatile Organic Compounds (VOC) impacts associated with former dry-cleaning operations were documented in soil, groundwater and soil vapor. Existing hard cover systems consisting of concrete building slabs and asphalt protect from direct contact with contaminants. Additionally, a sub-slab depressurization system (SSDS) installed in the laundromat mitigates the potential for contaminated below ground vapors to enter the indoor air.

#### Nature of Contamination

In soil and groundwater, the primary contaminants of concern (COCs) are:

Tetrachloroethene (PCE) - Maximum Concentration (below protective cover)

Soil - 2,830 mg/kg / 1.3 mg/kg Protection of Groundwater (PGW) Soil Cleanup Objective (SCO)

Groundwater - 6,910 ug/L / 5 ug/L Technical and Operational Guidance Series (TOGs)

Trichloroethene (TCE) - Maximum Concentration (below protective cover)

Soil - 38.2 mg/kg / 0.47 mg/kg PGW SCO

Groundwater - 3,450 ug/L / 5 ug/L TOGs

cis-1,2-Dichloroethene (cis-1,2-DCE) - Maximum Concentration (below protective cover)  
Soil - 16.7 mg/kg / 0.25 mg/kg PGW SCO  
Groundwater - 6,820 ug/L / 5 ug/L TOGs

Vinyl Chloride (VC) - Maximum Concentration (below protective cover)  
Soil - 6.27 mg/kg / 0.02 mg/kg PGW SCO  
Groundwater - 1,240 ug/L / 2 ug/L TOGs

In groundwater, additional COCs are:

Perfluorooctanoic Acid (PFOA) Maximum Concentration (below protective cover)  
Groundwater - 53.6 ng/L / 10 ng/L Maximum Contaminant Limit (MCL)

Perfluorooctane Sulfonic Acid (PFOS) Maximum Concentration (below protective cover)  
Groundwater 165.0 ug/L / 10 ng/L MCL

In sub slab soil vapor and indoor air, the primary COCs are:

Tetrachloroethene (PCE)  
Sub-slab Vapor Concentration Range - not detected - 47.7 ug/m3  
Indoor Air Concentration Range -  
Prior to SSDS - not detected - 9.57 ug/m3  
Post SSDS - not detected

Trichloroethene (TCE)  
Sub-slab Vapor Concentration Range - not detected - 9.57 ug/m3  
Indoor Air Concentration Range -  
Prior to SSDS - not detected  
Post SSDS - not detected

#### Extent of Contamination

Area of Concern (AOC) - 1 - This primary source area of contamination is limited to the Alcove area at the rear of the laundromat where former dry-cleaning equipment was operated and maintained. Additionally, a bottomless sump formerly located outside the Alcove area is suspected to be the point of disposal. Soil contaminated with parent and daughter compounds PCE and TCE is below concrete and asphalt cover, extends laterally from IRM #1 excavation north, under the Alcove building slab and vertically from 1-18 feet below ground surface (bgs). Additional remedial excavation is infeasible due to building foundations and utilities. Contaminated groundwater is documented in shallow groundwater between 6 and 18 feet bgs. Sub-slab soil vapor is impacted with PCE and TCE.

AOC - 2 - This area of concern is located adjacent to the southern / downgradient / clean extent of IRM #1 excavation and is below asphalt cover. Soil contaminated with daughter compound VC slightly above protection of groundwater soil cleanup objectives is present between 13-32 feet bgs. No additional delineation is necessary.

AOC - 3 - This area of concern is located in the southwestern portion of the site and is below asphalt and a strip of soil cover at the property line. Groundwater contaminated with daughter compounds cis-1,2-DCE and VC is elevated and present in shallow groundwater between 6-16 feet bgs. Soil contamination was not detected above protection of groundwater soil cleanup objectives below the asphalt cover. The chemical quality of the strip of soil cover will be verified to meet restricted commercial SCOs or replaced with clean soil over a demarcation layer during the Remedial Action Work Plan (RAWP).

Off-site Contamination: Groundwater contaminated with cis-1,2-DCE and VC between 6-16 feet bgs extends across the southern site boundary to an adjacent completed BCP Site #C835025. Contaminant concentrations attenuate below TOGs values within 50 feet and institutional and engineering controls are in effect to address potential exposure. No additional delineation of contamination in groundwater is necessary.

#### **6.4: Summary of Human Exposure Pathways**

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not contaminated by the site. Direct contact with contaminants in the soil is unlikely because the site is covered by buildings and pavement. Volatile organic compounds may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air or buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system has been installed in the on-site building to address the potential for exposure. Potential exposure to site contaminants on the adjoining residential property to the south are addressed in the completed Canandaigua Multi Brownfield Site #C835025 with institutional and engineering controls including a site management plan.

#### **6.5: Summary of the Remediation Objectives**

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

The remedial action objectives for this site are:

#### **Groundwater**

##### **RAOs for Public Health Protection**

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

### **RAOs for Environmental Protection**

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.

### **Soil**

#### **RAOs for Public Health Protection**

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

#### **RAOs for Environmental Protection**

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

### **Soil Vapor**

#### **RAOs for Public Health Protection**

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

## **SECTION 7: ELEMENTS OF THE SELECTED REMEDY**

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Enhanced Chemical Reduction / Biodegradation and Site Cover remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

### **1. Remedial Design**

A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. 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 gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;

- Reducing waste, increasing recycling, and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes that balance ecological, economic, and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

## 2. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for restricted commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

## 3. Groundwater - In-situ Chemical Reduction and Enhanced Bioremediation

In-situ enhanced chemical reduction and biodegradation will be implemented to treat chlorinated volatile organic compounds, PCE and TCE in the soil and groundwater. Zero-Valent Iron (ZVI) and Emulsified Vegetable Oil (EVO) will be injected adjacent to the rear portion and downgradient of the remaining source area located under the Former Parkway Cleaners (AOC 1). In-situ enhanced biodegradation will be employed to control plume migration from the site by treating cis-DCE and VC in groundwater near the southern property line (AOC 3). The biological breakdown of contaminants through anaerobic reductive dichlorination will be enhanced by the injection of Emulsified Vegetable Oil (EVO) to control plume migration from the site. Groundwater monitoring will be conducted 6, 9, and 12 months after remedial reagent injection at up-gradient and down-gradient locations, and within the treatment zone to assess the performance and effectiveness of the remedy. Additionally, monitoring of PFAS and PFOA will occur concurrently to assess plume migration from the site.

## 4. Soil Vapor

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## 5. Engineering and Institutional Controls

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### A. Institutional Control

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- require the remedial party or site owner to complete and submit to the Department 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 restricted 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 Department approved Site Management Plan.

### B. Site Management Plan

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

1. 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 above.

Engineering Controls: The soil cover discussed in Paragraph 2 and the sub-slab depressurization system discussed in Paragraph 4 above.

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;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation

will be completed prior to, or in association with, redevelopment. This includes the Former Parkway Cleaners building and adjacent tenant spaces;

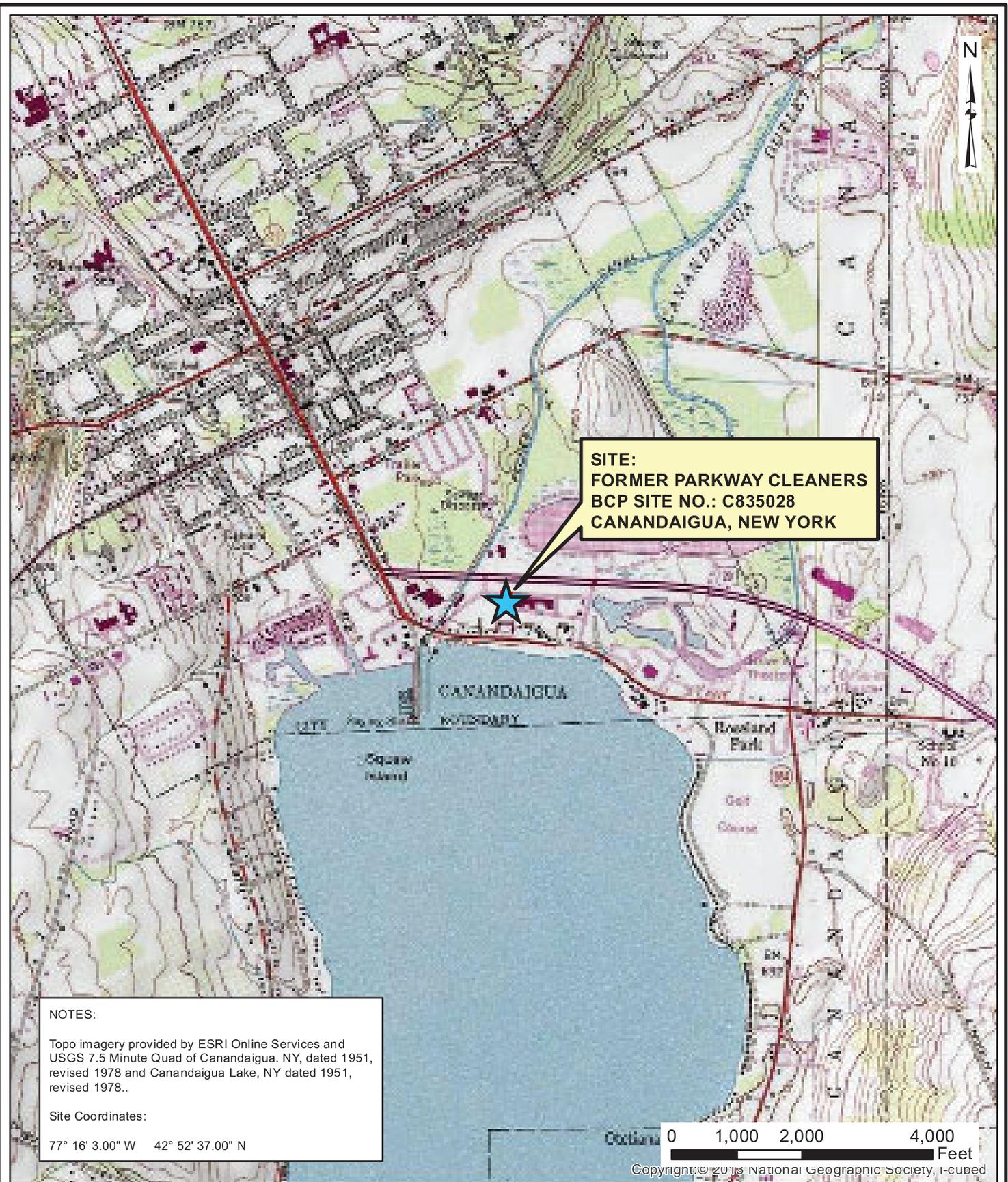
- a provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures.
- a provision for removal or treatment of the source area located under the rear portion of the Former Parkway cleaners tenant space if and when the building is demolished;
- 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 occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, access to soils of unknown chemical quality will be restricted to reduce the risk of potential exposure and contaminant migration until a cover system consistent with that described in Paragraph 2 above is established in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

2. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater to assess the performance and effectiveness of the remedy and plume migration from the site;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- A provision for Sub-slab and indoor air monitoring in tenant spaces if elevated levels of contaminants in soil vapor / gas are generated during the in-situ remediation and implementing actions recommended to address exposures related to soil vapor intrusion.

3. 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;
- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.



NOTES:

Topo imagery provided by ESRI Online Services and USGS 7.5 Minute Quad of Canandaigua, NY, dated 1951, revised 1978 and Canandaigua Lake, NY dated 1951, revised 1978..

Site Coordinates:

77° 16' 3.00" W 42° 52' 37.00" N

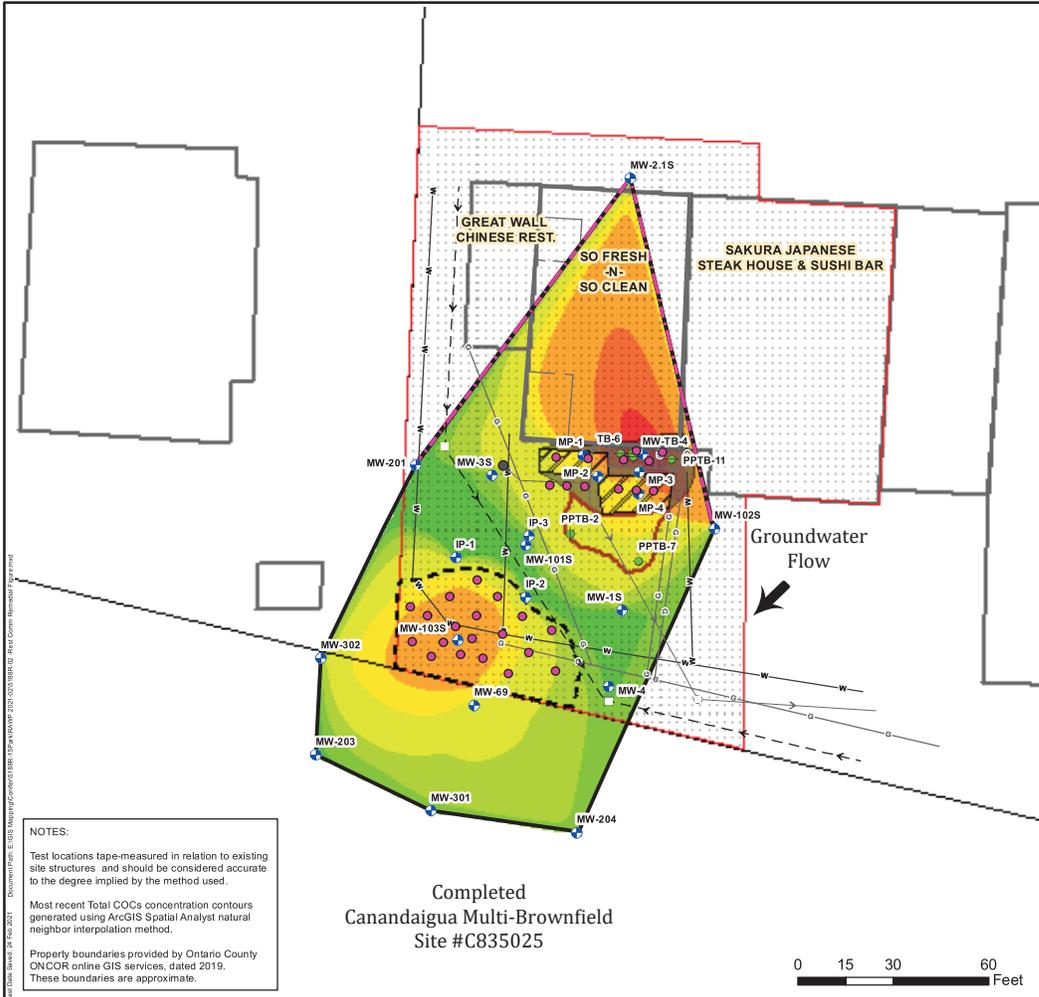
Copyright © 2013 National Geographic Society, I-cubed

Date	02-17-2021
Drawn By	CPS
Scale	AS NOTED

**day**  
**DAY ENGINEERING, PC.**  
 Environmental Engineering Consultants  
 Rochester, New York 14606  
 New York, New York 10170

Project Title	FORMER PARKWAY CLEANERS BCP SITE NO.: C835028 CANANDAIGUA, NEW YORK
Drawing Title	Project Locus Map

Project No.	NYSDEC DECISION DOCUMENT FIGURE 1 June 2022
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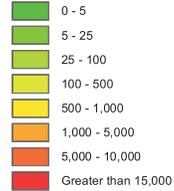
Completed  
Canandaigua Multi-Brownfield  
Site #C835025



**Legend**

- Proposed injection location
- Test boring
- Monitoring well
- ▨ IRM Soil removal area
- AOC #1 - Bioremediation and chemical reduction (approx. 500 sq. ft.)
- ▭ AOC #2 - Institutional and engineering controls (approx. 425 sq. ft.)
- ▭ AOC #3 - Bioremediation (approx. 1,750 sq. ft.)
- Assumed groundwater plume boundary due to inaccessible locations during investigations
- Projected groundwater plume limits as supported by existing data
- Catch Basin
- Clean Out
- Manhole
- Storm sewer
- Sanitary sewer
- Water line
- Gas line
- ▭ Building and tenant spaces
- ▭ BCP boundary
- ▭ Cover system
- ▭ Parcel boundaries

Total COC concentration contours in parts per billion (ppb) measured during most-recent sampling event (refer to Figure 6 for sample date and concentration measured)



Total Contaminant of Concern (COC) includes the sum of PCE, TCE, Cis 1,2-DCE, Trans 1,2 - DCE, and VC.

↙ Typical groundwater flow



**NOTES:**  
 Test locations tape-measured in relation to existing site structures and should be considered accurate to the degree implied by the method used.  
 Most recent Total COCs concentration contours generated using ArcGIS Spatial Analyst natural neighbor interpolation method.  
 Property boundaries provided by Ontario County ONCOR online GIS services, dated 2019. These boundaries are approximate.

DATE	02-2021
PROJECT MANAGER	RLK
DRAWN BY	CPS
SCALE	AS NOTED
DATE ISSUED	02-2021
DATE REVISION	02-16-2021

**day**  
**DAY ENGINEERING, P.C.**  
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FORMER PARKWAY CLEANERS  
 BCP SITE NO.: C835028  
 CANANDAIGUA, NEW YORK

Site Plan with Remedial Elements for Track 4 Restricted Commercial Use/Alternative (Preferred Alternative)

**NYSDEC  
 DECISION  
 DOCUMENT  
 FIGURE 2  
 June 2022**