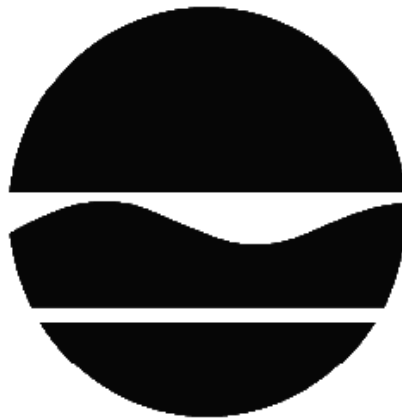


# DECISION DOCUMENT

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Former Crescent Puritan Laundry  
Brownfield Cleanup Program  
Rochester, Monroe County  
Site No. C828163  
September 2012



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

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Former Crescent Puritan Laundry  
Brownfield Cleanup Program  
Rochester, Monroe County  
Site No. C828163  
September 2012

## **Statement of Purpose and Basis**

This document presents the remedy for the Former Crescent Puritan Laundry 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 Former Crescent Puritan Laundry 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. The IRMs already completed including building demolition, underground storage tank removal, soil excavation, and in-situ bioremediation of groundwater.
2. The performance of the sub-slab depressurization system (SSDS) that was installed in the on-site building will be evaluated. If necessary, the system may be modified, replaced, or a soil vapor intrusion evaluation will be conducted.
3. A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).
4. Imposition of an institutional control in the form of an environmental easement for the controlled property that:
  - requires 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);

- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts 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
- requires compliance with the Department approved Site Management Plan.

5. 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 3 and the sub-slab depressurization system discussed in Paragraph 2 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;
- descriptions of the provisions of the environmental easement including any land use and/or groundwater restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed 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 Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of groundwater, sub-slab soil vapor, indoor air, and ambient air to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed in item a above.

c. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy.

The plan includes, but is not limited to:

- maintaining site access controls and Department notification;
- providing the Department access to the site and O&M records; and
- the operation of a SSDS in the on-site building.

6. Green remediation principles and techniques will be implemented to the extent feasible in the 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.

### **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.

09/04/2012



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Date

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Michael Cruden, Director  
Remedial Bureau E

# **DECISION DOCUMENT**

Former Crescent Puritan Laundry  
Rochester, Monroe County  
Site No. C828163  
September 2012

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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, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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 repositories:

Maplewood Public Library  
1111 Dewey Avenue  
Rochester, NY 14613-1305  
Phone: 585-428-8220

Rochester Public Library  
115 South Avenue  
Rochester, NY 14604-1817  
Phone: 585-428-7300

## **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, Voluntary 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 Crescent Puritan Laundry site is located in an urban area at the corner of Dewey Avenue and Palm Street in the City of Rochester, Monroe County.

**Site Features:** The main site feature is a 3 story building that also has a basement. The building has a footprint of approximately 25,000 square feet. Construction was initiated in 2011 and completed in 2012. An active sub-slab depressurization system was installed under the entire building, including the basement, when the building was constructed. The rest of the 1.4 acre site is covered by a mix of asphalt parking lot, concrete sidewalks and vegetated areas.

**Current Zoning/Uses:** The current site use is multi-tenant affordable housing. The site is zoned for industrial use with a special use permit to allow multi-tenant residential use. The surrounding parcels are currently used for a combination of roads, commercial, and residential uses. The nearest off-site residences are directly north of the site on the other side of Palm Street.

**Historic Uses:** From the 1920s until the mid 1970s or early 1980s, the site operated as a commercial laundry. The main historical site feature was a 52,000 square foot 2-story brick building which also had a basement. This building was demolished in 2011.

The property had various tenants after the laundry closed including plastic fabrication, printing, tool machining, and bathroom and kitchen cabinet sales. Prior uses that appear to have led to site contamination include several underground storage tanks apparently used to store gasoline and fuel oil and the use of Stoddard solvent which was commonly used for a variety of industrial applications including dry cleaning.

A 1999 Phase I/Phase II assessment indicated the potential presence of underground storage tanks at the site. Another Phase I/Phase II completed in 2000 identified two areas of petroleum contaminated soil. Two additional areas of petroleum contaminated soil were identified in 2006 and notice was provided to the DEC Spills unit. Additional investigation activities were completed in 2010 which verified the presence of two underground storage tanks and further defined the extent of petroleum contaminated soil. One tank was approximately 8,000 gallons and the other was approximately 1,000 gallons. Four additional underground storage tanks were later identified.

In 2010, the site was accepted into the Brownfield Cleanup Program.

Site Geology and Hydrogeology: Prior to re-development, fill materials were observed from the surface to a depth of from two (2) to three (3) feet across the open area of the site. This fill consisted of coarse to fine gravel, fine to medium sand, traces of coal, and bits of concrete. In areas adjacent to the former building walls and foundations fill material was observed to be as much as to 12 feet in depth especially adjacent the foundations of the old building basement areas. A significant volume of the original fill was removed during remediation and re-development activities and replaced with imported stone fill.

Below the original fill layer, to a depth of up to 12 feet, the site generally consists of fine to medium sandy silt. From 10 feet to 15 feet below grade, the geology consists of a hard silty clay. Bedrock was encountered at approximately 15 feet below grade.

Groundwater flow beneath the site is from the south-southwest to the north-northeast and the depth to groundwater varies from approximately 3 to 7 feet.

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 restricted-residential use (which allows for commercial use and 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 Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Volunteer does not have an obligation to address off-site contamination. The Department has determined that this site poses a significant threat to human health and the environment and there are off-site impacts that require remedial activities; accordingly, enforcement actions are necessary.

#### **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
- soil 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:

BENZO(A)PYRENE	Petroleum Products
BENZ(A)ANTHRACENE	benzene, toluene, ethylbenzene and xylenes
BENZO(B)FLUORANTHENE	(BTEx)
indeno(1,2,3-cd)pyrene	TETRACHLOROETHYLENE (PCE)
1,2,4-TRIMETHYLBENZENE	



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

- groundwater
- soil

## **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 - Building Demolition**

An IRM was initiated in January 2011 to demolish the on-site building to prepare the site for redevelopment and to provide access to evaluate environmental conditions under the building.

Approximately 931 tons of material were removed from the site during building demolition. The material consisted primarily of boiler ash, and construction and demolition debris (including asbestos containing material).

### **Tank Removal, Soil Removal, and Bioremediation IRM**

Based on the results of the pre-BCP investigations, it was determined that there were two existing underground storage tanks, five areas of petroleum contaminated soils, and an area of where chlorinated solvents were present in groundwater at levels that slightly exceed groundwater standards.

An IRM was initiated in April 2011 to remove the tanks, excavate the petroleum impacted soils, treat the chlorinated volatile organic compounds in groundwater, and evaluate the historic fill at the site.

During the IRM, a total of six underground storage tanks were found and removed from the site. The tanks ranged in size from 500 gallons and 8000 gallons.

Track 4 site-specific soil cleanup objectives (SCOs) relevant to the planned use of the site were used to guide excavation of contaminated soils. On-site soils which exceeded site-specific SCOs were excavated and transported off-site for disposal. The site-specific SCOs were restricted residential use SCOs (as defined by 6 NYCRR Part 375-6.8) for all contaminants. These SCOs were achieved by the IRM with the following exceptions:

- polycyclic aromatic hydrocarbons (PAHs) at concentrations up to approximately 14 ppm total PAHs remain in the historic fill under a portion of the asphalt parking lot; and
- 1,2,4-trimethylbenzene subsurface soils at concentrations up to approximately 67.5 ppm along a portion of the northern site boundary.

Four of the five excavations also achieved the Unrestricted Use SCOs.

Approximately 2700 cubic yards (4930 tons) of soil were removed during the IRM. In addition, approximately 7687 tons of soil and historic fill were removed as part of the redevelopment. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) was brought in to replace the excavated soil and establish the designed grades at the site.

A bioremediation amendment was added to two of the excavations to enhance the natural breakdown of the chlorinated VOCs present in the groundwater. Based on the post IRM groundwater sample results, it appears that the concentrations of chlorinated solvents in groundwater are decreasing.

### **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:**

Based upon investigations conducted to date, the primary contaminants of concern include petroleum related volatile organic compounds (VOCs), chlorinated VOCs and semi-volatile organic compounds. The semi-volatile organic compounds consist primarily of polycyclic aromatic hydrocarbons (PAHs) associated with the historic fill.

On-site petroleum contaminated soils from five distinct areas were remediated during a 2011 Interim Remedial Measure (IRM). The IRM also removed six underground storage tanks that appear to have contributed to site contamination. The remaining on-site soil impacts are PAHs, pesticides, and metals associated with the historic fill. While several metals and pesticides only slightly exceed their Unrestricted Use Soil Cleanup Objectives (SCOs), several PAHs also slightly exceed the Restricted Residential SCOs (typically 1 ppm). For example, the highest concentration of benzo(a)anthracene was 1.2 ppm.

The soil removal IRM was limited to addressing on-site impacts and petroleum-related contaminants in soil appear to have migrated off-site to the north. One of the IRM excavations terminated at the northern property line. One soil sample collected along the property line detected several petroleum-related compounds above their Unrestricted Use SCOs, including: 1,3,5-trimethylbenzene detected at 22.7 ppm (the SCO is 8.4 ppm) and 1,2,4-trimethylbenzene detected at 67.5 ppm (the SCO is 3.6 ppm). This 1,2,4-trimethylbenzene result also exceeded the Restricted Residential SCO of 52 ppm. Additionally, three northern property line samples detected tentatively identified compounds (TICs) at concentrations exceeding 100 ppm total VOC TICs. There are no SCOs for TICs.

There are two distinct areas of impacted groundwater at the site. One area appears to be residual petroleum-related contamination associated with a former underground storage tank that was removed as part of the 2011 IRM. This tank was located along the southern property line. Based on the February 2012 groundwater results, benzene, toluene, ethylbenzene, xylenes (collectively

referred to as BTEX) and 1,2,4-trimethylbenzene moderately exceed groundwater standards (typically 5 ppb), with a maximum total BTEX concentration of 580 ppb. VOC TICs were also detected in the groundwater at a concentration of approximately 1,412 ppb. The groundwater plume for this area does not appear to extend off-site.

The second area of impacted groundwater is located along the northern property line. This area includes a mix of chlorinated VOCs (specifically tetrachloroethene or PCE) and petroleum-related compounds. As part of the IRM, this area was treated with an amendment to enhance the natural breakdown of the PCE. Based on the April 2012 groundwater results, the PCE concentrations in one well remained slightly above the 5 ppb groundwater standard with a concentration of 7 ppb. The petroleum impacts to groundwater are limited to one well and are primarily in the form of VOC TICs, with concentrations ranging from approximately 300 and 500 ppb. Since groundwater flows to the north, these results indicate the potential for contaminants to migrate off-site to the north in groundwater.

Soil vapor samples collected along the northern property line detected a number of VOCs including: PCE up to 520 ug/m<sup>3</sup>; toluene up to 750 ug/m<sup>3</sup>; benzene up to 32 ug/m<sup>3</sup>; and VOC TICs up to 245 ppbv. While there are no standards, criteria, or guidance values for soil vapor, these results indicate the potential for contaminants to migrate off-site in the soil vapor.

#### Significant Threat:

The 2011 IRM removed the on-site sources of contamination. The residual contamination does not represent a significant threat to the environment.

### **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 expected to come into direct contact with site-related contaminants in the soil because the building and pavement cover most of the site. People may come into direct contact with site-related contaminants if they dig below the surface on-site or off-site to the north. People are not drinking contaminated groundwater associated with the site because the area is served by a public water supply that obtains its water from a different source not affected by this contamination. Volatile organic compounds in the groundwater 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 of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (system that ventilates the air beneath the building) has been installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the building. An evaluation of the potential for off-site soil vapor intrusion will be conducted.

### **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.

### **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.

### **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 Monitoring with Institutional and Engineering Controls remedy.

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

1. The IRMs already completed including building demolition, underground storage tank removal, soil excavation, and in-situ bioremediation of groundwater.

2. The performance of the sub-slab depressurization system (SSDS) that was installed in the on-site building will be evaluated. If necessary, the system may be modified, replaced, or a soil vapor intrusion evaluation will be conducted.

3. A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires 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);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts 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
- requires compliance with the Department approved Site Management Plan.

5. 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 3 and the sub-slab depressurization system discussed in Paragraph 2 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;
- descriptions of the provisions of the environmental easement including any land use and/or groundwater restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed 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 Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of groundwater, sub-slab soil vapor, indoor air, and ambient air to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed in item a above.

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

- maintaining site access controls and Department notification;
- providing the Department access to the site and O&M records; and
- the operation of a SSDS in the on-site building.

6. Green remediation principles and techniques will be implemented to the extent feasible in the 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.



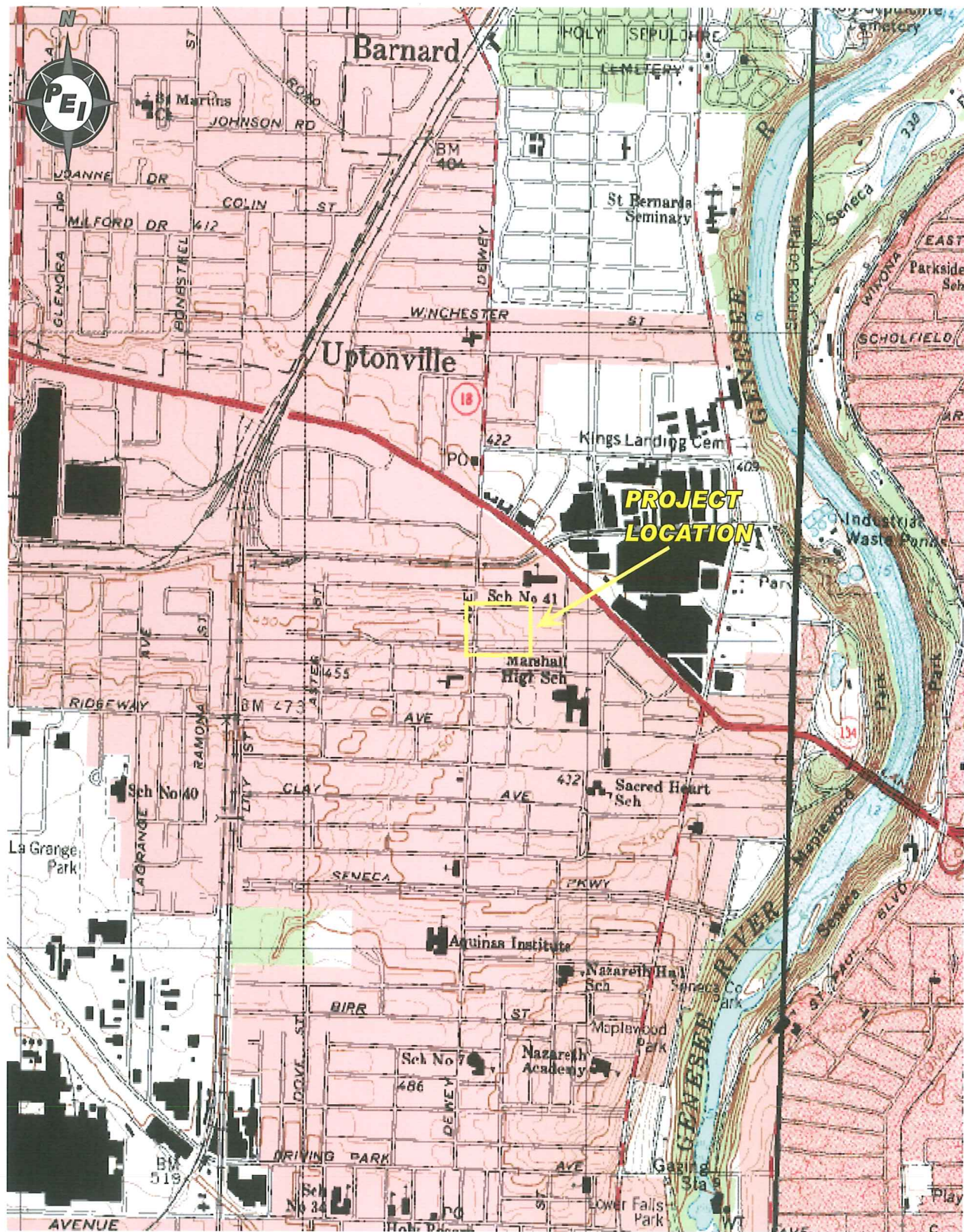


Figure 1. Project areas location in the City of Rochester, Monroe County, New York (USGS 7.5' Quadrangle, Rochester West, NY).







