

RECORD OF DECISION

Orchard-Whitney Site
Environmental Restoration Project
Rochester, Monroe County
Site No. E828123
March 2016



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

DECLARATION STATEMENT - RECORD OF DECISION

Orchard-Whitney Site
Environmental Restoration Project
Rochester, Monroe County
Site No. E828123
March 2016

Statement of Purpose and Basis

This document presents the remedy for the Orchard-Whitney Site, an environmental restoration 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 Orchard-Whitney Site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) alternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human 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.

March 25, 2016

Date



Robert W. Schick, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

Orchard-Whitney Site
Rochester, Monroe County
Site No. E828123
March 2016

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 resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

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:

Lyell Branch Library
956 Lyell Avenue
Rochester, NY, NY 14606
Phone: 585-428-8218

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the alternatives analyses (AA) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

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 Orchard-Whitney site is a 4.073-acre site comprised of two separate parcels, 354 Whitney Street and 415 Orchard Street in the City of Rochester. The site is bounded by commercial properties and is adjacent to a densely populated residential area to the south.

Site Features: The site is currently vacant and fenced. Cover material consists of crushed building debris, and concrete.

Current Zoning and land use: The site is currently unoccupied and it is zoned for commercial and light industrial uses.

Past Use of the Site: At one time there were several multi-story brick manufacturing buildings and a power plant on-site. The properties have a long history of industrial use. Several sources of

contamination existed at this site including Underground Storage Tanks (USTs), electrical transformers, coal storage, chemical storage, metal finishing operations, and plating operations. In January 1999, USEPA completed a drum removal at the 354 Whitney St. parcel. Over 15 containers of waste material were removed.

The Department completed an investigation of a portion of the site using EPA site assessment funds in December 2006.

Site Geology and Hydrogeology: Groundwater is generally 5 to 10 feet below ground surface and generally flows to the northeast. The depth to bedrock varies, but it is generally encountered 10 to 20 feet below ground surface. Along the southern portion of the site, the depth to bedrock exceeds 38 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 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 investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

No PRPs have been documented to date.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. City of Rochester will assist the state in its efforts by providing all information to the state which identifies PRPs. City of Rochester will also not enter into any agreement regarding response costs without the approval of the Department.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities

and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil

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. The tables found in Exhibit A list the applicable SCG in the footnotes. 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 in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

chromium	trichloroethene (TCE)
lead	cadmium
petroleum products	

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

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 Record of Decision.

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

Building Demolition (October 2010)

During the RI, a building demolition IRM was completed. Prior to demolition of the former power house and remnants of the 354 Whitney Street structures, hazardous waste and asbestos abatement activities were completed. This demolition project removed all structures on-site with the exception of the 415 Orchard Street building. In addition to asbestos and other hazardous building materials, twelve drums of paint wastes, waste oil and caustics were removed from the building prior to demolition. Even though several transformers were removed, no PCBs were encountered. These activities are documented in the SI/RAR and IRM CCR Report (December 2015).

UST and Soil Removal (June 2011)

After completion of the demolition project for the power house, nine underground storage tanks, adjacent soils, and a former hydraulic lift pit were removed and disposed of at a permitted facility. The USTs were all contained within a concrete vault structure. Approximately 14,200 gallons of waste gasoline, fuel oil, and mineral spirits were pumped from the tanks and disposed of off-site. Additionally, fourteen tons of hazardous waste soils (TCLP-Lead), 1,100 gallons of sludge and tank cleaning fluids, 14,700 gallons of contaminated water and 214 tons of petroleum contaminated soils were disposed of off-site at permitted facilities. The vaults were backfilled with flowable fill and at least one foot of clean soil.

Soil Removal and In-situ Groundwater Treatment (March 2012)

The former plating area is located in the southern central area of the site and it is bound by the former UST vault, former foundation walls, and a former steam pipe tunnel. Soils and groundwater were impacted by chromium within the immediate former chrome plating area. Initial concentrations of chromium in soil ranged from 10 ppm to 737 ppm and chromium concentration in groundwater ranged from 1,100 ppb to 32,500 ppb. Approximately 530 tons of non-hazardous chromium contaminated soils and 127 tons of hazardous waste (TCLP-Chromium) soils were disposed of off-site. Due to the presence of large sub-grade concrete structures, sub-surface soils exceeding the restricted commercial SCOs remain. In order to mitigate chromium contamination in groundwater, approximately 500 gallons of food-grade molasses was sprayed into the excavation prior to backfilling to promote reduction of residual chromium from the hexavalent

form to the trivalent form. The excavation was backfilled with crushed concrete and brick from former on-site buildings.

Soil Removal and asbestos abatement (October 2015)

After demolition of the 415 Orchard Street structure (completed outside the ERP, by the City), an investigation was conducted to determine the extent of petroleum impacted soils adjacent to the former tank vault. During the investigation, a utility trench with asbestos insulated pipes was discovered above the area of contaminated soil. Following the investigation, an asbestos abatement was conducted and approximately 700 tons of petroleum contaminated soils were removed and disposed of off-site at a permitted facility. All confirmatory soil samples met the commercial use criteria. The excavation was backfilled with concrete and masonry millings from the former 415 Orchard Street structure. The remaining millings were spread on-site as part of the site cover. The site cover consists of either concrete surfaces or at least one foot of concrete and masonry millings. There are no exposed surface soils on-site.

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.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were chromium, lead, cadmium, and petroleum contamination in on-site soil and groundwater, and low-levels (<10 ppb) of chlorinated solvents in groundwater. Remedial actions have successfully achieved soil cleanup objectives for commercial use. Remaining contamination in the soil and groundwater will be managed under a Site Management Plan.

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 may come into contact with contaminated soils or groundwater at the site if they did below the ground surface. People are not drinking contaminated groundwater since the area is served by public water. 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. The potential exists for people to

inhale site contaminants in indoor air due to soil vapor intrusion in future on-site buildings. Environmental sampling indicates that soil vapor intrusion is not a concern for off-site buildings.

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.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the investigations at the site, the IRMs that have been performed, and the evaluation presented here, the Department is selecting No Further Action as the remedy for the site. This No Further Action remedy includes the implementation of ICs/ECs (environmental easement, cover system, groundwater monitoring, and Site Management Plan) as the selected remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

1. Green remediation principals 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; and
 - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.
2. A site cover currently exists and will be maintained to allow for restricted commercial or restricted industrial use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper 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. 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 and industrial uses 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.
4. 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 item #3 above.

Engineering Controls: The site cover as discussed in item #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 groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion in future 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 to assess the performance and effectiveness of the remedy;
and
 - a schedule of monitoring and frequency of submittals to the Department.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into three categories: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting soil and groundwater.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Wastes and source areas were identified at the site which included, a former plating area and an underground storage tank (UST) vault. Please refer to Figure 2 for their respective locations. There are several large concrete foundations, and tunnels adjacent to these areas that limited the aerial extent of soil and groundwater contamination associated with these sources. These structures extend into bedrock.

Plating area

After completing soil excavations as part of the IRM described in section 6.2, twelve bottom and sidewall samples were analyzed for site-related contaminants. One sidewall sample exceeded the restricted commercial SCO for chromium (400 ppm) with a concentration of 863 ppm. Seven other confirmatory samples exceeded the groundwater protection number for hexavalent chromium (19 ppm) at levels ranging from 22.2 to 128 ppm. The remaining four confirmatory sample concentrations ranged from 6.38 to 15.2 ppm. Cadmium concentrations exceeded commercial SCOs (9.3 ppm) in three of twelve samples ranging from 11.9 to 90.3 ppm. Cadmium concentrations in the remaining nine samples ranged from non-detect to 6.36 ppm. All confirmatory sample locations were at least 4 feet below ground surface and there is at least one foot of cover material that meets commercial SCOs. The IRM soil removal reduced chromium contamination in groundwater within the plating area from 32,300 ppb to 2,630 ppb. Soil and groundwater contamination from contaminants within the plating area are localized to the plating area. Chromium was detected in only one on-site downgradient well from the chrome plating area at a concentration of 92 ppb. Contaminant migration appears to be limited by various sub-grade concrete structures, and there does not appear to be a significant plume of contaminants migrating off-site. Furthermore concentrations of chromium are expected to decline due to source removal and the molasses injection bioaugmentation.

UST Tank Vault

The primary contaminants of concern were petroleum products and lead from leaded gasoline. Due to the proximity to the plating area, chrome and cadmium contamination was encountered during tank excavations.

After completion of the IRM described in section 6.2, confirmatory soil samples indicate that commercial SCOs were achieved for soils at the bottom of the tank vaults and in the adjacent soil excavation beneath the former 415 Orchard Street structure. Total residual petroleum contamination in groundwater was less than 100 ppb total VOCs. Benzene concentrations ranged from 6.74 to 25.8 ppb and there was one toluene detection at 38.6 ppb. Downgradient wells outside of the former UST vault were non-detect for petroleum constituents.

The waste/source areas identified at the site were addressed by the IRM(s) described in Section 6.2.

Groundwater

During the RI, 22 permanent and 13 temporary wells were installed to assess the nature and extent of groundwater contamination. Groundwater was analyzed for VOCs, SVOCs, PCBs, pesticides, and metals. The temporary wells were installed within the plating area discussed in the previous section and the permanent monitoring wells were installed throughout the site. Please refer to Figure 3 for well locations and post-IRM groundwater quality data. Groundwater impacts from the source areas are generally localized and have been significantly mitigated by previous IRMs conducted at the site. Low-levels of chlorinated solvent were detected throughout the site at total VOC concentrations either slightly above or slightly below their respective class GA groundwater standards. Due to the low levels of chlorinated solvents on-site, there does not appear to be a significant source. Remaining petroleum contamination is limited to the area of the former USTs. There does not appear to be a significant groundwater contamination migrating off-site. The City of Rochester is served by public water and use of groundwater as a potable water source within the City limits is prohibited by City code.

Remaining chromium and cadmium detected in on-site groundwater is generally limited to the former plating areas. Although chromium contaminant levels significantly exceeded the groundwater standards, these concentration were limited to the former plating area. Chromium concentrations were reduced by an order of magnitude by the IRM and there is not a significant plume of chromium contamination migrating off-site.

Table 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
VOCs			
Benzene	ND to 25.8	1.0	3 of 26
Toluene	ND to 38.6	5.0	1 of 26
Xylenes	ND to 85.5	5.0	1 of 26
Trichloroethene	ND to 5.25	5.0	1 of 26

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
cis-1,2-dichloroethene	ND to 3.78	5.0	0 of 26
Vinyl Chloride	ND to 8.32	2.0	1 of 26
Inorganics			
Cadmium	ND to 26	5.0	2 of 26
Chromium	ND to 2,630	50	4 of 26
Lead	ND to 70	25	3 of 26

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Groundwater contamination identified during the RI was addressed during the IRM described in Section 6.2.

Soil

Currently, the site is covered by concrete surfaces or at least one foot of concrete and brick building debris from the former 415 Orchard Street structure. There are no exposed surface soils and the majority of the site is fenced. During the RI and the IRMs conducted at the site, subsurface soil samples were collected for site characterization and confirmatory samples. Four off-site surface soil samples were collected during the RI. Soils were analyzed for VOCs, SVOCs, PCBs, pesticides, and metals.

Due to the presence of coal and coal ash found throughout the site, the concentrations of PAHs exceeded commercial SCOs at several locations. Additionally, the concentration of PAHs in off-site surface soils exceed the commercial SCOs. Off-site samples do not appear to be impacted by contaminants from the Orchard-Whitney site. Please refer to Figure 4 for soil sample results.

VOC concentration in soils within the IRM soil excavations meet the commercial SCOs and were not detected in significant concentrations in soils outside the former source areas.

Metals concentrations in the subsurface on-site soils generally meet the commercial SCOs with the exception of the former plating area and UST area. Very low levels of PCBs were detected in subsurface soils either at or below the unrestricted use SCO. No Pesticides were detected in subsurface soils.

In general, there are no remaining significant sources of contamination in subsurface soils.

Table 2 - Soil

Detected Constituents	Concentration Range Detected (ppm) ³	Unrestricted SCG ^b (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use Commercial SCG ^c (ppm)	Frequency Exceeding Restricted SCG
SVOCs					
Benzo(a)anthracene	ND to 27	1	6 of 48	5.6	3 of 48
Benzo(a)pyrene	ND to 30	1	6 of 48	1	5 of 48
Benzo(b)fluoranthene	ND to 33	1	7 of 48	5.6	4 of 48
Benzo(k)fluoranthene	ND to 23.6	0.8	6 of 48	56	0 of 48
Chrysene	ND to 28.1	1	6 of 48	56	0 of 48
Dibenzo(a,h)anthracene	ND to 6.48	0.33	3 of 48	0.56	3 of 48
Indeno(1,2,3,cd)pyrene	ND to 19	0.5	6 of 48	5.6	1 of 48
Inorganics					
Cadmium	ND to 90.3	2.5	5 of 70	9.3	3 of 70
Chromium	ND to 863	19 ^d	10 of 70	19 ^d	10 of 70
Lead	ND to 670	63	2 of 70	1,000	0 of 70

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

Soil contamination identified during the RI was addressed during the IRM described in Section 6.2.

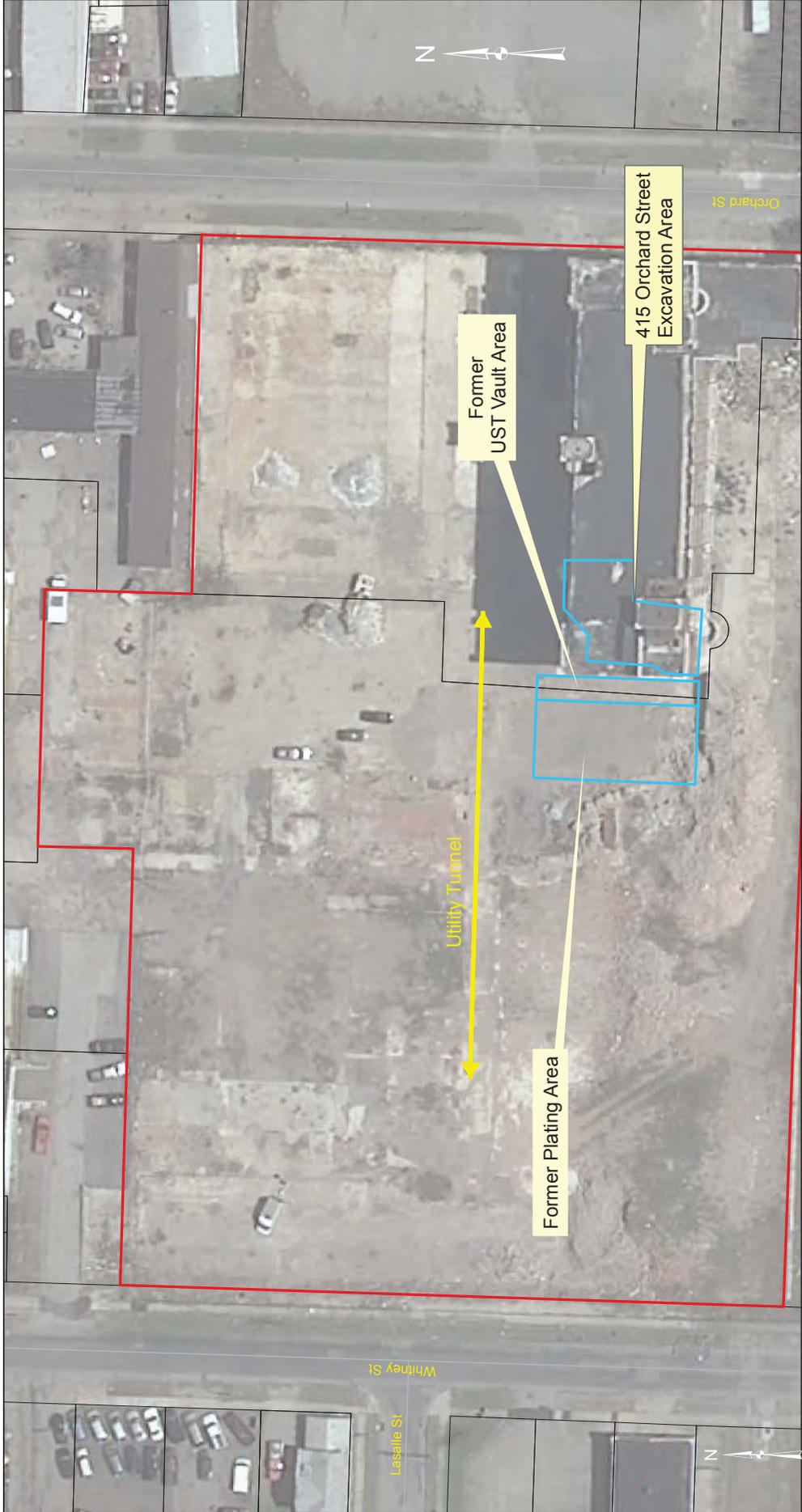


Figure 2
Orchard-Whitney Site E828123
IRM Excavation Areas

- Legend**
- Orchard-Whitney Site Boundary
 - Real Property Boundaries
 - IRM Excavation Areas



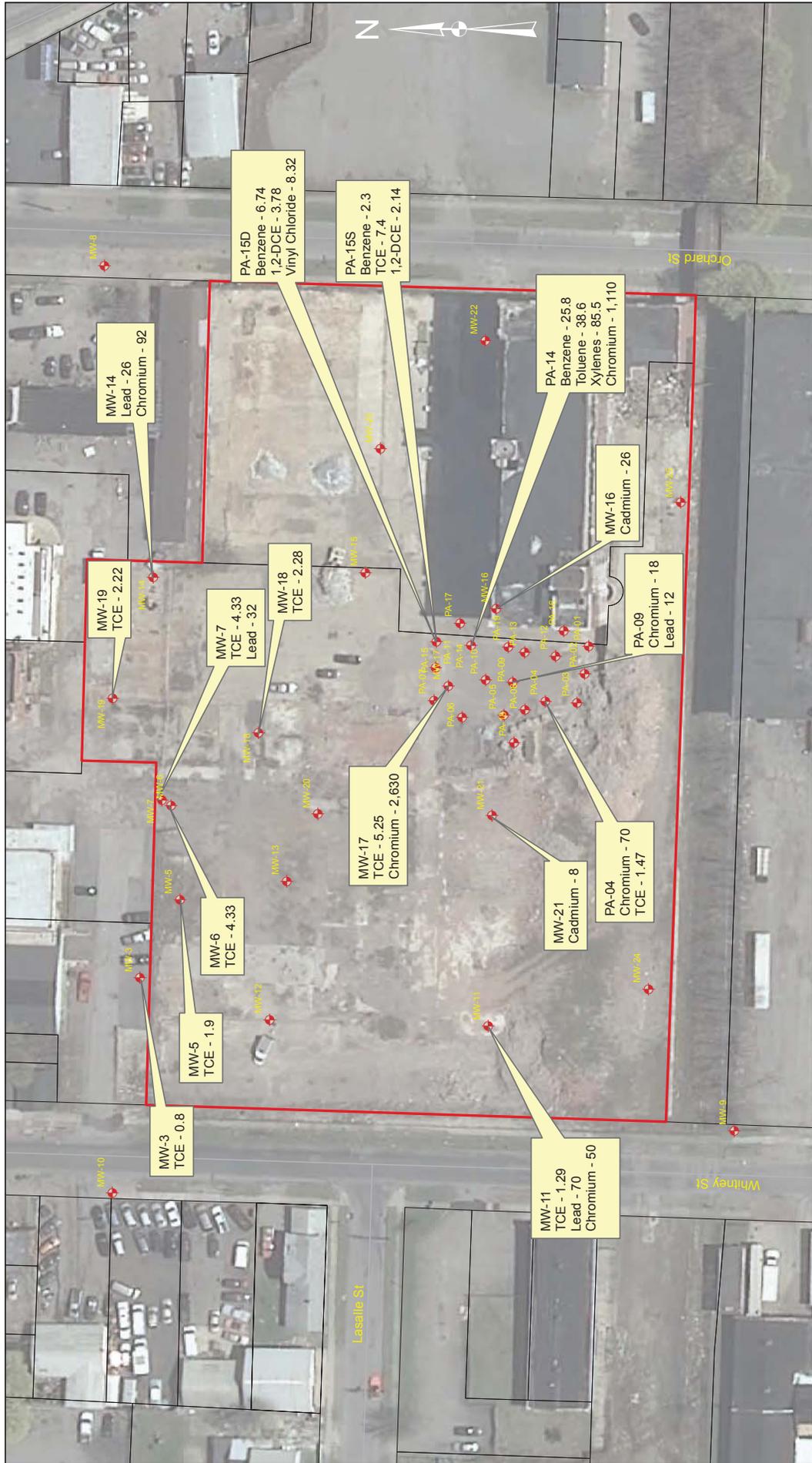
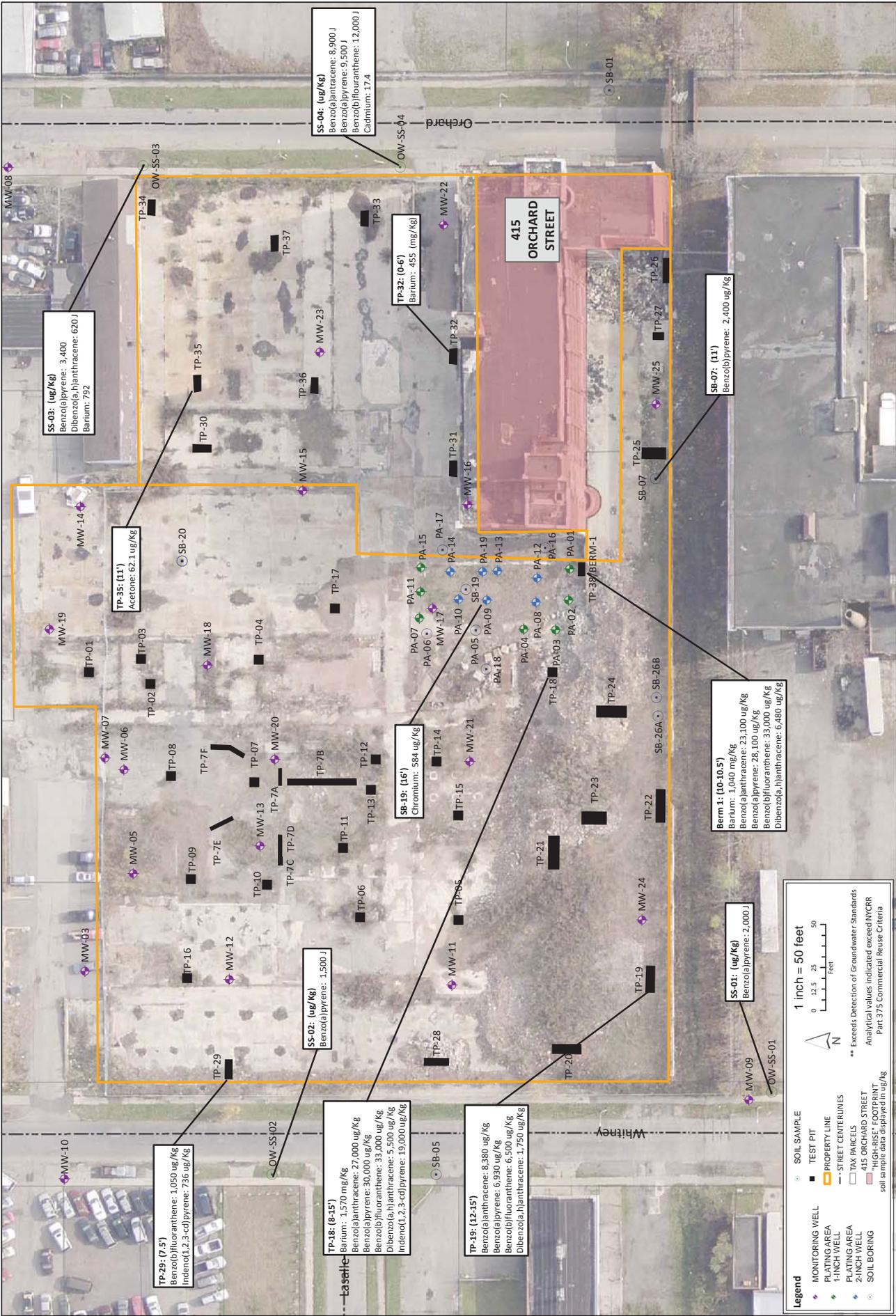


Figure 3
 December 2012 Groundwater Data
 Orchard-Whitney Site E828123



Legend

- SOIL SAMPLE
- TEST PIT
- PROPERTY LINE
- FLATING AREA
- 1-INCH WELL
- FLATING AREA
- 2-INCH WELL
- SOIL BORING
- STREET CENTER LINES
- TAX PARCELS
- 415 ORCHARD STREET
- "HIGH-RISE" FOOTPRINT

1 inch = 50 feet

0 12.5 25 50 Feet

** Exceeds Detection of Groundwater Standards
 Analytical values indicated exceed NYCRR
 Part 375 Commercial Reuse Criteria

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Orchard-Whitney Site
Environmental Restoration Project
City of Rochester, Monroe, County New York
Site No. E828123**

The Proposed Remedial Action Plan (PRAP) for the Orchard-Whitney Site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 9, 2016. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the Orchard-Whitney site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 9, 2016, which included a presentation of the remedial investigation alternative analysis (RI/AA) for the Orchard-Whitney Site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 25, 2016.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Is there a concern for residual contamination that remains on-site?

RESPONSE 1: No. There are no complete exposure pathways for the remaining contamination on-site. The area is served by a public water supply, and groundwater use is prohibited within the City of Rochester. The site cover prevents direct contact with any remaining contaminated soils. Any future excavations must be conducted in accordance with a Site Management Plan which requires monitoring and engineering controls to limit the potential for exposure to the remaining contamination.

COMMENT 2: Does anything that is built at the site need to be constructed as slab-on-grade?

RESPONSE 2: No. Any new construction would need to be conducted in accordance with the Site Management Plan (SMP). Any excavated soils below the site cover would require proper management in accordance with the SMP. Excavated soils would need to be sampled for off-site disposal or they could be relocated on-site beneath a suitable cover. The potential for soil vapor intrusion would need to be evaluated for all new structures and mitigated as necessary. Any new buildings would be limited to commercial or industrial use pursuant to the Environmental Easement.

APPENDIX B

Administrative Record

Administrative Record

**Orchard-Whitney Site
Environmental Restoration Project
City of Rochester, Monroe, County New York
Site No. E828123**

1. *Proposed Remedial Action Plan for the Orchard-Whitney Site*, dated February 2016, prepared by the Department.
2. The Department and the City of Rochester entered into a State Assistance Contract, Contract No. C303000, effective September 30, 2005.
3. “Remedial Investigation Work Plan,” July 2006, prepared by Lu Engineers.
4. “Interim Remediation Measure Work Plan,” September 2007, prepared by Lu Engineers.
5. “Remedial Investigation and Interim Remedial Measure Work Plan,” February 2011, prepared by Lu Engineers.
6. “Work Plan Supplemental Site Investigation 415 Orchard Street,” May 2015, prepared by Lu Engineers.
7. “Site Investigation/Remedial Alternatives Report and Interim Remedial Measures Construction Completion Report,” December 2015, prepared by Lu Engineers.
8. “Interim Remedial Measures Construction Completion Report, 415 Orchard Street,” December 2015, prepared by Lu Engineers.