DECISION DOCUMENT

1777 East Henrietta Road Brownfield Cleanup Program Henrietta, Monroe County Site No. C828192 December 2020



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

DECLARATION STATEMENT - DECISION DOCUMENT

1777 East Henrietta Road Brownfield Cleanup Program Henrietta, Monroe County Site No. C828192 December 2020

Statement of Purpose and Basis

This document presents the remedy for the 1777 East Henrietta Road 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 1777 East Henrietta Road site and the public's input to the proposed remedy presented by the Department.

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) or 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 proposed remedy for the site.

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.

12/29/2020	Milfel
Date	Michael Cruden, Director
	Remedial Bureau E

DECISION DOCUMENT

1777 East Henrietta Road Henrietta, Monroe County Site No. C828192 December 2020

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 alternative analysis (AA). The IRMs 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. 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 selected remedy. 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 DD identifies the IRM(s) conducted and discusses the basis for No Further Action.

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 repository:

Henrietta Public Library 455 Calkins Road Henrietta, NY 14623

Phone: 585-334-3401

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 1777 East Henrietta Road Site is located in a suburban area at the southwestern corner of East Henrietta Road and Jefferson Road intersection within the Town of Henrietta.

Site Features:

Current site features include a primarily metal clad masonry building of approximately 260,000 square feet for multi-tenant commercial or industrial uses as well as a masonry building of approximately 27,700 square feet which is also partially utilized for office space. The remaining area of the 35.006 acre property is covered by approximately 230,000 square feet of asphalt parking lots and roadways as well as undeveloped wooded and grassy lands. The entire western portion of the site is undeveloped. In addition, a storm water detention pond is located in the northeastern corner of the property which receives a majority of the site storm water through storm water collection drains and underground drainage located around the facility.

Current Zoning and Land Use:

The site is currently utilized for industrial purposes and is zoned for industrial use. The surrounding parcels are currently used for a combination of commercial/retail to the north, undeveloped land and residential to the west, and commercial to the east. One residential property is located approximately 1,000 feet to the west of the site's western property line.

Past Use of Site:

The site appears to have been utilized for industrial purposes since at least 1955. Two 10,000 gallon fuel oil underground storage tanks (USTs) were removed in 1988. Environmental investigations were completed at the site in 1996, 2013, 2014, and 2015. These investigations identified that former on-site degreasing, metal finishing operations and wastewater treatment operations impacted soil and groundwater with volatile organic compounds, cadmium, and chromium.

Site Geology and Hydrogeology:

Groundwater at the site is approximately 6 to 11 feet below ground surface, and appears to flow to the north northeast. The site is generally underlain by dense lacustrine silt and clay and glacial till with select areas of shallow fill material. The silt and clay layer appears to generally be present from just below ground surface to approximately 20 to 25 feet. Dense glacial till primarily consisting of very fine to coarse sand, some fine to coarse gravel and little silt has generally been encountered beneath the silt and clay layer to approximately 3 to 5 feet above the top of bedrock. Weathered shale was observed in the bottom 3 to 5 feet of the deep borings. Bedrock appears to consist of Vernon Shale from the Upper Silurian and ranges in thickness from approximately 150 to 400 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 available in the Remedial Investigation (RI) Report.

SECTION 5: ENFORCEMENT STATUS

One or more of the Applicants under the Brownfield Cleanup Agreement is a Participant. The Participant(s) has/have an obligation to address on-site and off-site contamination. The Department as determined that this site does not pose a significant threat to public health or the environment; accordingly, no 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
- 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:

trichloroethene (TCE) nickel
cis-1,2-dichloroethene (1,2-DCE) 1,1-dichloroethene
vinyl chloride copper
cadmium benzo(a)pyrene

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 dated July 2018 and the IRM Construction Completion Reports.

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.

Sub-slab Depressurization System (SSDS)

Due to the presence of a source area of volatile organic contaminants (VOCs) beneath the main building, a soil vapor intrusion (SVI) study was conducted prior to completion of the RI at the main building and the northern building. The results of the SVI indicated that mitigation was required within the main building and no further actions were required in the northern building. A sub-slab depressurization system (SSDS) was installed within a portion the main building to mitigate soil vapor intrusion into indoor air. The system was installed in July 2017 and began operating in September 2017. Due to a lack of vacuum coverage beneath portions of the building slab, the system was expanded in February 2018 which began operation in March 2018. Post mitigation sampling indicated that indoor air concentrations of TCE ranged from ND to 0.54 ug/m³ which are within background concentrations. During operation of the Electrical Resistivity Heating (ERH) system described below, the portion of the SSDS within the former plating area was shut down due to the operation of the ERH and multi-phase extraction system. The shutdown portion of the system has since been reactivated.

The results of this IRM are documented in a report entitled Construction Completion Report, Sub-Slab Depressurization System Installation dated November 2020. Continued monitoring and maintenance will be required as part of the Site Management Plan in Sction 7 below. The location of the SSDS is depicted in Figure 2

Electrical Resistivity Heating

Prior to completion of the RI, a groundwater contamination source was identified within the central portion of the main on-site building. Historically this area was a former metal finishing/plating area that utilized trichloroethylene (TCE) for degreasing operations. Concentrations of TCE in groundwater ranged from 1,200 parts per billion (ppb) to 920,000 ppb within this source area. TCE concentrations in soil ranged from 58 parts per million (ppm) to 160 ppm.

The IRM consisted of the installation of an Electrical Resistivity Heating (ERH) System to remediate source area soils and groundwater. A total of 19 electrodes were installed beneath the main building to heat the subsurface to over 100 degrees Celsius (C) within the former plating area. A multi-phase vacuum extraction system withdrew contaminated vapors and liquids that were treated on-site prior to discharge. The system operated from November 2019 to February 2020. After the subsurface conditions cooled to 40 degrees C, a proprietary zero-valent iron

(ZVI) reagent and dehalococcoides bacteria were injected into the sub surface to promote in-situ biodegradation of contaminants as a polishing step. Post treatment groundwater data is limited due to lack of groundwater recharge within the former plating area due to low permeability soils. Available data show that concentrations of TCE in groundwater have been reduced by 95% or greater with the greatest reduction going from 920,000 ppb to 91 ppb TCE. After treatment, soil concentrations of TCE within in the former plating area ranged from non-detect (ND) to 1.5 ppm indicating 98% or greater TCE concentration reduction in soils.

The results of the IRM are documented in a report entitled Construction Completion Report/Final Engineering Report dated December 2020. Continued monitoring and maintenance will be required as part of the Site Management Plan in Section 7 below. The location of the ERH system is depicted in Figure 3, and IRM groundwater and soil results are depicted in Figure 4A.

Enhanced In-situ Bioremediation

Prior to completion of the RI, groundwater contamination was identified within the area of a small storm water retention pond located at the northeastern corner of the site. The source of this contamination was reportedly from past industrial discharges. TCE and 1-2 DCE and other chlorinated VOCs were identified. TCE levels as high as 4,000 ppb were detected in wells immediately adjacent to the pond. The IRM involved installation of injection wells and injecting a proprietary ZVI reagent to promote in-situ biodegradation of contaminants. Approximately 450 pounds of the reagent was injected along with dehalococcoides bacteria. Post-injection groundwater data show significant reduction in TCE levels (3,000 ppb pre-injection, 220 ppb post injection) in the area of highest contamination. Additionally, the concentrations of breakdown products have increased.

The results of the IRM are documented in a report entitled Construction Completion Report/Final Engineering Report dated December 2020. Continued monitoring and maintenance will be required as part of the Site Management Plan in Sction 7 below. The location of the storm water pond is depicted in Figure 3 and IRM Groundwater results are depicted in Figure 4B.

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.

A remedial investigation was completed to determine the nature and extent of contamination.

Nature and Extent of Contamination:

Soil and groundwater were analyzed for volatile organic compounds (VOCs) semi-volatile organic compounds (SVOCs), metals, pesticides, and poly-chlorinated biphenyl's (PCBs) and

polyfluoronated alkyl substances (PFAS). Soil vapor was analyzed for VOCs. The primary contaminants of concern for the site are volatile organic compounds (VOCs).

Groundwater:

Groundwater is contaminated with chlorinated VOCs from two source areas identified on-site that have been addressed by IRMs. Post-IRM levels of TCE in groundwater within the former metal finishing/plating area range from ND to 91 ppb. Post-IRM levels of TCE in groundwater within the storm water pond area range from ND to 220 ppb. Levels of vinyl chloride increased from ND to 10 ppb, and levels of cis-1,2,dichloroethene increased from 9.3 ppb to 19.8 ppb. Two off-site wells located northeast and downgradient of the storm water pond area show levels of TCE ranging from 0.28 ppb to 0.81 ppb. The levels of contaminants in groundwater are expected to decrease over time. Baseline and Post-IRM groundwater sample results are depicted in Figures 4A and 4B.

Soil:

Soil contamination is generally limited to the two on-site source areas, except for a detection of benzo(a)pyrene at 1.1 ppm on the northern property boundary exceeding the commercial Soil Cleanup Objectives (SCO) of 1 ppm. Elsewhere, on-site surface and shallow soil sampling (0-1 foot) did not identify concentrations of soil contaminants exceeding the commercial SCOs. Cadmium at 28 ppm (SCO – 9.3 ppm), nickel at 940 ppm (SCO - 310 ppm), and copper at 670 ppm (SCO 270 ppm) were detected in subsurface soils above the commercial SCOs beneath the former metal finishing/plating area. None of these metals were detected in groundwater above the New York State Groundwater Standards, nor were they detected in soils elsewhere on-site. Post-IRM sampling for VOCs show levels of TCE ranging from ND to 1.5 ppm. Surface and shallow soil sample results are depicted in Figure 5, and sub-surface soil sample results are depicted in Figure 6.

Soil Vapor:

Indoor air and sub-slab soil vapor contamination with TCE was documented in the main building. Indoor air concentrations of TCE in the main building ranged from ND to 1.9 ug/ m3. Sub-slab soil vapor concentrations of TCE ranged from ND to 32 micrograms per cubic meter (ug/m³) and required mitigation. A SSDS was installed in the main building in July 2017 and began operating in September 2017. Post-mitigation sampling indicates the system is effectively mitigating indoor air. Indoor air concentrations of TCE ranged from ND to 0.54 ug/m³Soil vapor intrusion monitoring was completed in the northern building, and no further actions are required.

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*.

Measures are in place to control the potential for coming in contact with subsurface soil and groundwater contamination remaining on the site. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this

contamination. Volatile organic compounds in the groundwater and soil may move into the soil vapor (air spaces within the soil), which in turn may move into nearby 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 installed in a portion of the main building prevents contaminated vapors beneath the slab from entering the building. Soil vapor intrusion sampling indicates that soil vapor intrusion is not a concern for the remainder of the main building or for the other on-site building. However, it is recommended that soil vapor intrusion be evaluated for any new buildings built on the site in the future. Sampling indicates that soil vapor intrusion is not a concern for offsite 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.
- 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

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department has selected No Further Action as the remedy for the site. This No Further Action remedy includes continued operation of the sub-slab depressurization system, continued monitoring of the groundwater, maintenance of the existing site cover, and the implementation of an environmental easement 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.

The elements of the IRM already completed and the required institutional and engineering controls are listed below:

1. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for commercial or industrial 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 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).

2. 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 commercial use or industrial 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; and
- require compliance with the Department approved Site Management Plan.

3. Site Management Plan

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

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

Institutional Controls: The Environmental Easement discussed in Paragraph 2 above.

Engineering Controls: The Site Cover System as described in Paragraph 1 above. The groundwater treatment IRMs and the sub-slab depressurization system as described in Section 6.2 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 that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 1 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- a provision for evaluation of the potential for soil vapor intrusion for any future buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and 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;
 - a schedule of monitoring and frequency of submittals to the Department; and
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- c. 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.

Figure 1 1777 East Henrietta Road Site Location Site #C828192













