DECISION DOCUMENT

Eldre Corporation Brownfield Cleanup Program Henrietta, Monroe County Site No. C828182 August 2022



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

DECLARATION STATEMENT - DECISION DOCUMENT

Eldre Corporation Brownfield Cleanup Program Henrietta, Monroe County Site No. C828182 August 2022

Statement of Purpose and Basis

This document presents the remedy for the Eldre Corporation 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 Eldre Corporation site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

1. Remedial Design:

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

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

include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation:

All soils in the upper 1 foot which exceed the commercial SCOs (55 Hofstra Road parcel) and industrial SCOs (1500 Jefferson Road parcel) will be excavated and transported offsite for disposal. See Figure 3.

3. Backfill:

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to establish the designed grades at the site. The site will be re-graded to accommodate installation of a cover system as described in remedy element 4.

4. Cover System:

A site cover will be required to allow for restricted commercial use (55 Hofstra Road parcel) and restricted industrial (1500 Jefferson Road parcel) at the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site (commercial at 55 Hofstra Road parcel and industrial at 1500 Jefferson Road parcel) as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations, and building slabs.

5. Vapor Mitigation:

Any on-site buildings (55 Hofstra Road parcel and 1500 Jefferson Road parcel) will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater.

6. Engineering and Institutional Controls:

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted commercial cleanup for the 55 Hofstra Road parcel and Track 4 restricted industrial cleanup for the 1500 Jefferson Road parcel.

Institutional Control:

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

• Require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- Allow the use and development of the controlled property for restricted commercial use (55 Hofstra Road parcel) and restricted industrial use (1500 Jefferson Road parcel) 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.
- 7. Site Management Plan:

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

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

Institutional Controls: The Environmental Easement discussed in Paragraph 6.

Engineering Controls: The soil cover discussed in Paragraph 4 and the sub-slab depressurization system discussed in Section 6.2 and Paragraph 5 above.

This plan includes, but may not be limited to:

- An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination.
- A provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment.
- A provision for demolition of 1500 Jefferson Road building and the 55 Hofstra Road building if and when they become unsafe or inactive or vacant.
- A provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures.
- A provision for removal or treatment of the source area located under 1500 Jefferson Road building and the 55 Hofstra Road building if and when the building(s) is demolished or becomes vacant.

- 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 at 55 Hofstra Road parcel and the 1500 Jefferson Road parcel be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs).
- Provisions for the management and inspection of the identified engineering controls.
- Maintaining site access controls and Department notification.
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- 2. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
 - Monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy.
 - A schedule of monitoring and frequency of submittals to the Department.
- 3. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
 - Procedures for operating and maintaining the system(s); and
 - Compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

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.

9/2/2022

Michael Cruden

Michael Cruden, Director Remedial Bureau E

Date

DECISION DOCUMENT

Eldre Corporation Henrietta, Monroe County Site No. C828182 August 2022

SECTION 1: <u>SUMMARY AND PURPOSE</u>

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

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

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

SECTION 2: <u>CITIZEN PARTICIPATION</u>

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

DECInfo Locator - Web Application https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C828182

Henrietta Public Library Attn: Virginia Cooper 455 Calkins Road Henrietta, New York 14623 Phone: 585-359-7092 NYSDEC Region 8 Office 6274 East Avon-Lima Road Avon, New York 14414 Phone: 585-226-5354 Please Call for an Appointment

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 goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: <u>SITE DESCRIPTION AND HISTORY</u>

Location: The Eldre Corporation site occupies Section 162.08 Block 1 Lots 27.11, 27.12, 27.21, and 24 in the Town of Henrietta, an urban suburb of Rochester.

Site Features: The site is comprised of 4 contiguous parcels and occupies 2 addresses: 1500 Jefferson Road and 55 Hofstra Road. The Jefferson Road section includes 97,250 square foot split level occupied building that is constructed slab on grade except for the southern portion of the building which has a basement. Asphalt paved parking lots and driveways are located north, south, and east of the main building. The Hofstra Road parcel includes one 6,860 square foot building currently used for maintenance and storage, asphalt paved parking lots and driveways, and a vegetative covered section on the east side of the parcel.

Current Zoning/Uses: The site is zoned for commercial (55 Hofstra parcel) and industrial (1500 Jefferson parcels) uses. The entire site is owned and operated by Mersen USA SPM Corp (formerly known as Eldre Corporation), a company specializing in the manufacture of electronic components (primarily bus bars) for the electronic equipment industry.

Historical Uses: Information pertaining to the past use of the site (prior to Eldre Corporation's operation commencing in 1974) is limited. The Jefferson Road parcel was developed by Fannon Metal Industries in the mid-1950s prior to which it was utilized for agricultural purposes. P&F Metal and Finishing shared the site with Fannon Metal at least during the 1960s. The Hofstra Road parcel appears to have been primarily used as a trucking facility, including petroleum storage, and dispensing, by various entities from approximately 1968 until 2001. Petroleum underground storage tanks (USTs) were removed from the parcel in 1997 and 1999 (including a 1,000-gallon waste oil UST, a 10,000-gallon unleaded gasoline UST, and a 12,000-gallon diesel UST) along with several hundred tons of petroleum impacted soil. The UST and soil removal activities were approved under the NYSDEC Spill Response Program see Spill Nos. 9705148 and 9870026).

Site Geology and Hydrogeology: According to the Monroe County Soil Survey (1973), soils at the site consist mainly of well to moderately drained silt loam of the Cayuga Series, moderately well drained silt loam of the Hilton Series, and a poorly drained silt loam of the Niagara Series. According to the National Atlas website, bedrock at the site consist of Middle Paleozoic (Silurian, Devonian, and Mississippian) sedimentary rocks. The nearest water body is the Erie Canal, located approximately one mile to the north of the site. Groundwater flow at the site is generally in a

northerly direction. The depth to groundwater at the site ranges from 1 to 9 feet across the site.

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) [55 Hofstra Road parcel] and industrial use as described in Part 375-1.8(g) [1500 Jefferson Road parcel] were 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: <u>ENFORCEMENT STATUS</u>

One or more of the Applicants under the Brownfield Cleanup Agreement is a Participant. The Participant has an obligation to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary. Based on the findings of the investigation, NYSDEC in consultation with the NYSDOH has determined that the site poses a significant threat to public health or the environment. This decision is based on the nature of the contaminants identified at the site and the potential for human exposure to site related contaminants via soil vapors.

SECTION 6: <u>SITE CONTAMINATION</u>

6.1: <u>Summary of the Remedial Investigation</u>

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
- 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: <u>http://www.dec.ny.gov/regulations/61794.html</u>

6.1.2: <u>RI Results</u>

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)	cis-1,2-dichloroethene
methyl-tert-butyl ether (MTBE)	vinyl chloride
1,1 dichloroethene	tetrachloroethene (PCE)
benzo(a)pyrene	indeno(1,2,3-cd)pyrene,
benzo(b)fluoranthene	trans-1,2-dichloroethene

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

- groundwater
- soil
- soil vapor

6.2: Interim Remedial Measures

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

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

Interim Remedial Measure - Sub-Slab Depressurization System (SSDS)

During the remedial investigation, indoor air and sub-slab sampling within the 1500 Jefferson Road building footprint indicated TCE concentrations in the sub-slab ranged from 14 ug/m³ to 62 ug/m³ and indoor air TCE concentrations ranged from non-detect to 9.9 ug/m³. Three (3) SSDSs were installed within the 1500 Jefferson Road building to address SVI. The East System and West SSDSs were installed in 2018. Post-mitigation SVI sampling was conducted during the heating season on April 2, 2019 to confirm the effectiveness of the East and West SSDS. Based on the higher concentrations of compounds in the indoor air than in the sub-slab, locations were resampled in April 2020. Based on the April 2020 analytical results in the Tool Room, the SSDS was expanded to include the Tool Room (i.e., South SSDS). The South SSDS was installed in March 2021. An indoor air sampling was collected along with an outdoor air sample to confirm the effectiveness of the South SSDS. TCE in indoor air was detected in the Tool Room at a concentration of 2.4 ug/m³ after the SSDS was installed and operating for ten (10) days. To determine if the indoor air levels decreased below the NYSDOH air guidance levels in March 2022, an additional indoor air sample was collected in the Tool Room. Based on the review of that data, the concentrations of TCE are now below the Air Guidance Value of 2 ug/m³, therefore, no additional sampling of the Tool Room is warranted at this time. The SSDS will continue to operate.

Interim Remedial Measures - Electrical Resistance Heating (ERH)

In situ-thermal remediation (ISTR) was completed for the source area by applying ERH. The ERH contractor developed a site-specific detailed design and was included in the IRM Work Plan. ERH was installed November 2019 to March 2020 and operated for 62 days from March 10, 2020 to May 11, 2020. The ERH system applied a total of 475,148 kWh and the average subsurface temperature was increased to 99.3 degrees Celsius. The ERH system groundwater goal was achieved 500 ppb TCE (contractor system guarantee) and diminishing returns were reached. Average percent reductions in soil were: cis-1,2-dichloroethene >99%, PCE >99%, TCE 96%. Average percent reductions in groundwater were: cis-1,2-dichloroethene 60%, PCE >99%, TCE 61%. An estimated total of 330 lbs. of TCE mass was removed.

6.3: <u>Summary of Environmental Assessment</u>

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.

The nature and extent of contamination at the site has been defined under the remedial investigation completed as part of the Brownfield Cleanup Program. The primary contaminants of concern at the site are chlorinated volatile organic compounds (VOCS).

A source area of chlorinated VOCs was identified in soils and groundwater beneath and immediately adjacent to the northern (manufacturing) area of the main building. A chlorinated VOC groundwater plume extends in a northerly direction from beneath the building to the adjacent parking lot area of the site. Limited off-site migration of chlorinated solvents in groundwater is likely occurring to the adjacent site to the west at concentrations less than one part per million (ppm) based on the September 2014 groundwater sampling event. The adjacent site to the west is a Class 4 Inactive Hazardous Waste Disposal Site (former Xerox Henrietta Facility, Site #828069) with a separate source of chlorinated VOC contamination.

Prior to the ERH IRM described above, trichloroethene (TCE) was detected on site at concentrations up to 434 ppm in soil and 144,000 parts per billion (ppb) in groundwater. Tetrachloroethene (PCE) was detected at concentrations up to 3.89 ppm in soil and 3,100 ppb in groundwater. Breakdown products cis-1,2-dichloroethene (up to 0.439 ppm in soil and 14,000 ppb in groundwater), trans-1,2-dichloroethene (up to 130 ppm in groundwater), 1,1-dichloroethene (up to 43 ppb in groundwater), and vinyl chloride (up to 570 ppb in groundwater) were also frequently detected at the site. Other contaminants identified at the site more than applicable standards, criteria, and guidance values (SCGs) include methyl tert-butyl ether (MTBE) (up to 660 ppb in groundwater) and benzo(a)pyrene (up to 2.59 ppm in surface soil).

Post-ERH IRM groundwater sampling within the source area indicated trichloroethene concentrations ranged from 100 to 350 ppb, tetrachloroethene concentrations ranged from 0.38 to 15 ppb, and cis-1,2-dichloroethene concentrations ranged from 3.1 to 97 ppb.

MTBE was detected primarily in monitoring wells on the northern parcel of the site and adjacent portions of the southern parcel. These detections may be associated with past gasoline dispensing operations on the northern parcel of the site or possible off-site sources.

Benzo(a)pyrene was detected at a concentration above the SCO for Industrial Use in one surface soil sample collected at the 1500 Jefferson Road parcel. This surface soil sample is located near the front entrance to the building adjacent to the asphalt paved parking lot. At the 55 Hofstra Road parcel soil sampling indicated benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and benzo(b)fluoranthene were detected above the SCOs for commercial use. The polyaromatic hydrocarbons (PAHs) were not detected at levels above SCGs in subsurface soils or groundwater and it is not known to have been used as part of the manufacturing processes at this site. Its presence in the surface soil sample may be related to the adjacent asphalt pavement and housekeeping activities.

6.4: <u>Summary of Human Exposure Pathways</u>

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

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not contaminated by the site. People who enter the site could contact contaminants in the soil by walking on the soil, digging, or otherwise disturbing the soil. Volatile organic

compounds may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air or buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system was installed in the 1500 Jefferson Road building since actions were needed to address the potential for soil vapor intrusion to occur. Soil vapor intrusion was evaluated at the 55 Hofstra Road Building but based on current use it was determined no action was necessary at this time. Additionally, environmental sampling indicates that soil vapor intrusion not a concern off-site to the West; however, the adjacent off-site property to the East is a Class 4 Superfund site known as Harris Corporation (former Xerox, site #828069) which has a sub-slab depressurization system installed on the building to prevent vapors beneath the slab from entering the building.

6.5: <u>Summary of the Remediation Objectives</u>

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

<u>Soil</u>

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.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

<u>Soil Vapor</u>

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: <u>ELEMENTS OF THE SELECTED REMEDY</u>

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 Commercial and Restricted Industrial use with sitespecific excavation criteria remedy.

The selected remedy is referred to as the Cover System and Site Management remedy.

The elements of the selected remedy, as shown in Figure 3, are as follows:

1. Remedial Design:

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

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

All soils in the upper 1 foot which exceed the commercial SCOs (55 Hofstra Road parcel) and industrial SCOs (1500 Jefferson Road parcel) will be excavated and transported offsite for disposal. See Figure 3.

3. Backfill:

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to establish the designed grades at the site. The site will be re-graded to accommodate installation of a cover system as described in remedy element 4.

4. Cover System:

A site cover will be required to allow for restricted commercial use (55 Hofstra Road parcel) and restricted industrial (1500 Jefferson Road parcel) at the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site (commercial at 55 Hofstra Road parcel and industrial at 1500 Jefferson Road parcel) as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations, and building slabs.

5. Vapor Mitigation:

Any on-site buildings (55 Hofstra Road parcel and 1500 Jefferson Road parcel) will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater.

6. Engineering and Institutional Controls:

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Institutional Control:

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

- Require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- Allow the use and development of the controlled property for restricted commercial use (55 Hofstra Road parcel) and restricted industrial use (1500 Jefferson Road parcel) 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.
- 7. Site Management Plan:

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

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

Institutional Controls: The Environmental Easement discussed in Paragraph 6.

Engineering Controls: The soil cover discussed in Paragraph 4 and the sub-slab depressurization system discussed in Section 6.2 and Paragraph 5 above.

This plan includes, but may not be limited to:

- An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination.
- A provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment.
- A provision for demolition of 1500 Jefferson Road building and the 55 Hofstra Road building if and when they become unsafe or inactive or vacant.
- A provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures.
- A provision for removal or treatment of the source area located under 1500 Jefferson Road building and the 55 Hofstra Road building if and when the building(s) is demolished or becomes vacant.
- 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 at 55 Hofstra Road parcel and the 1500 Jefferson Road parcel be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs).

- Provisions for the management and inspection of the identified engineering controls.
- Maintaining site access controls and Department notification.
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- 2. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
 - Monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy.
 - A schedule of monitoring and frequency of submittals to the Department.
- 3. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
 - Procedures for operating and maintaining the system(s); and
 - Compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.





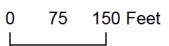
ELDRE CORPORATION BCP SITE C828182

1500 JEFFERSON ROAD AND 55 HOFSTRA ROAD

REMEDIAL ALTERNATIVES ANALYSIS

BCP Site and Surrounding Parcels

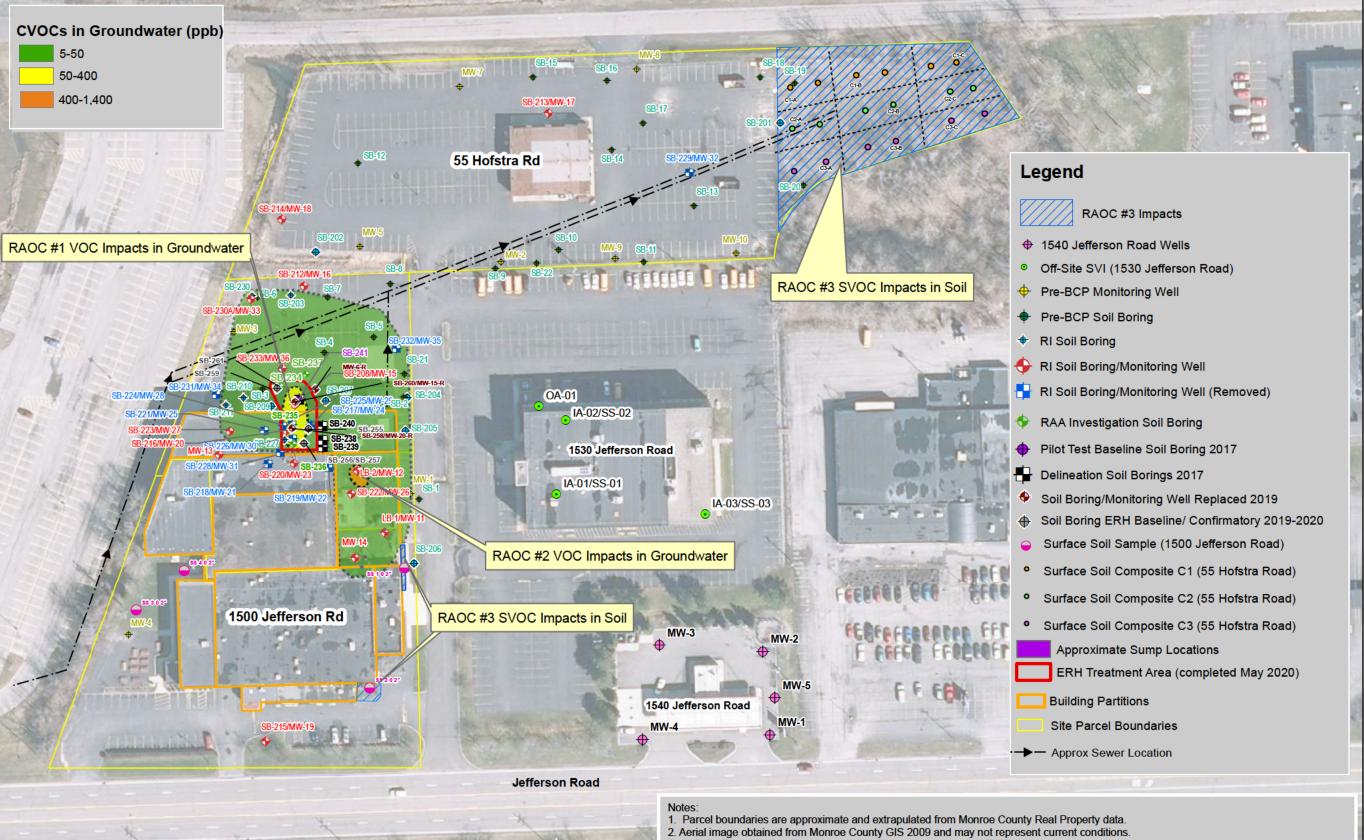




1 inch = 150 feet

212721.02	
212121.02	

FIGURE 2



- 3. LaBella RI sample locations surveyed by licensed surveyor, NAVD 88 datum.
- Interior locations from 2017-2021 were measured from Site features and are approximate. Concentrations result from the sum of all detected chlorinated volatile organic compounds and tentatively identified compounds. 6. Groundwater data includes post-ERH groundwater results where available within the treatment area (MW-15-R and MW-20-R) as well as most recent data from wells outside of the ERH treatment area (i.e., pre-ERH data from 2014 and 2019).
- The RAOC #2 plume (MW-12) was not sampled post-ERH; as such, the modeling for this area uses September 2014 data.
 Concentrations in ug/L or parts per billion (ppb).
- 9. Off-site CVOC data was not collected.
- 10. Dashed lines indicate the contours were devloped manually and not using a modeling software.
- 11. Off-site well locations at 1540 Jefferson Road obtained from Matrix report dated May 1, 2001 and are associated with off-Site NYSDEC Petroleum Spill.
- 12. Refer to Figure 4B for RAOC #1 details.



ELDRE CORPORATION BCP SITE C828182

1500 JEFFERSON ROAD AND 55 HOFSTRA ROAD

REMEDIAL ALTERNATIVES ANALYSIS

> Conceptual Site Model Post-IRMs (Entire Site)

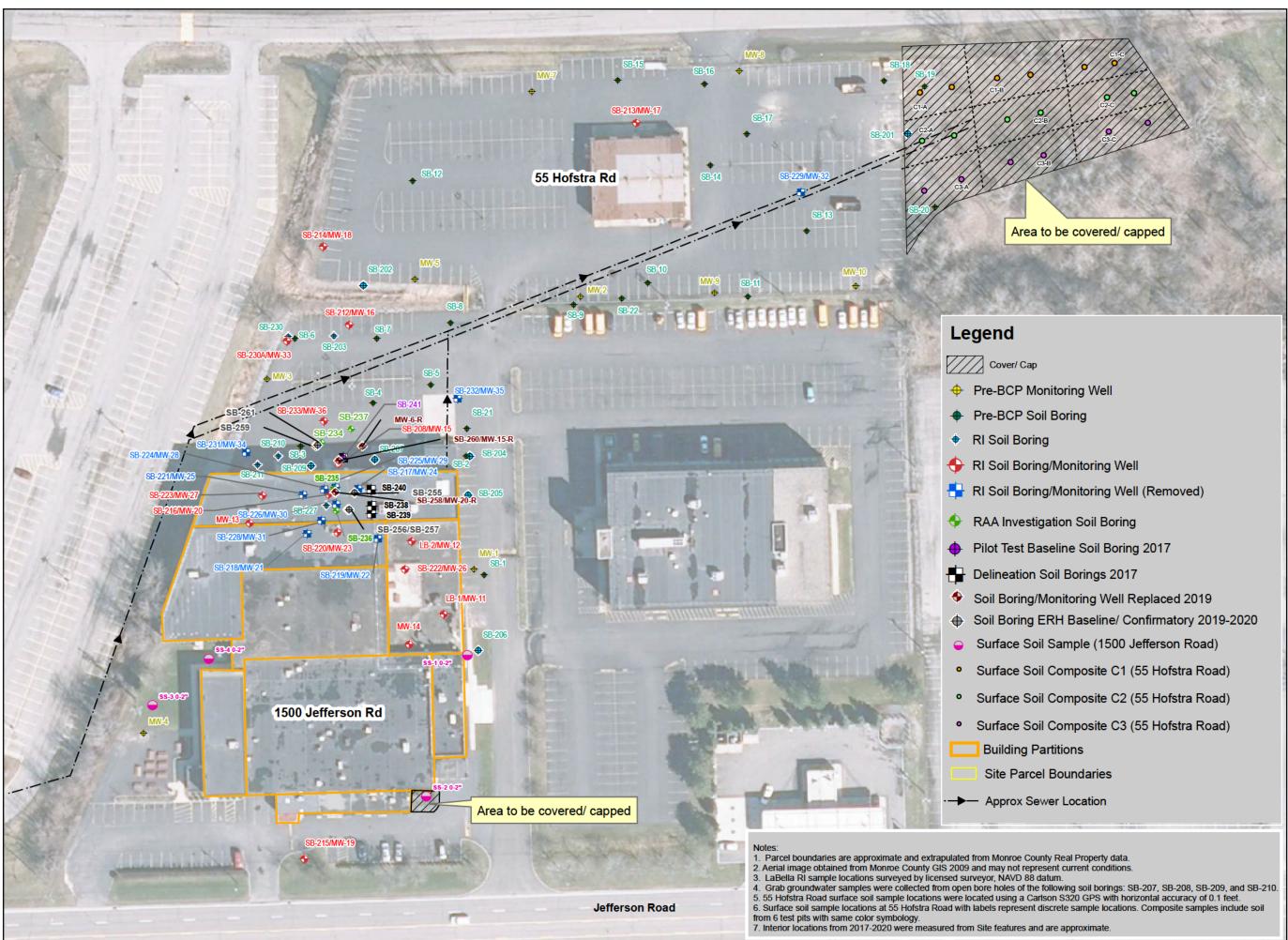


0	50	100		
Feet				

1 inch = 100 feet Intended to print as 11" x 17".

212721.02

FIGURE 4A





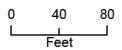
ELDRE CORPORATION BCP SITE C828182

1500 JEFFERSON ROAD AND 55 HOFSTRA ROAD

REMEDIAL ALTERNATIVES ANALYSIS

RAOC #3: ALTERNATIVE 2 CAP/ COVER





1 inch = 80 feet Intended to print as 11" x 17".

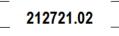


FIGURE 6