# **DECISION DOCUMENT**

624 River Road
Brownfield Cleanup Program
North Tonawanda, Niagara County
Site No. C932176
December 2021



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

624 River Road Brownfield Cleanup Program North Tonawanda, Niagara County Site No. C932176 December 2021

# **Statement of Purpose and Basis**

This document presents the remedy for the 624 River 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 624 River Road site and the public's input to the proposed remedy presented by the Department.

# **Description of Selected Remedy**

The elements of the selected remedy are as follows:

#### 1. Remedial Design

A remedial design program 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; and
- 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. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet 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 two feet 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 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.

#### 3. Groundwater Monitoring

A minimum of one additional groundwater monitoring well will be installed downgradient of MW-2 to confirm that contaminated groundwater is not migrating from the site towards the Niagara River. All wells installed at the site will be monitored according to the Site Management Plan (Paragraph 6, below). Any on-site monitoring well that is damaged or otherwise made unusable will be repaired or replaced pursuant to a plan approved by the Department.

#### 4. Institutional Controls

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 residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or Niagara County DOH; and
- require compliance with the Department approved Site Management Plan.

#### 5. 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 4 above.

Engineering Controls: The soil cover discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination or where material exhibiting an elevated radiological signature is identified;

- a provision for further investigation and remediation should the existing structures be demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the on-site building and associated parking area;
- o a provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures;
- o 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 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)
- o provisions for the management and inspection of the identified engineering controls;
- o maintaining site access controls and Department notification; and
- o the steps necessary for the periodic reviews and certification of the institutional and engineering controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- o monitoring of groundwater to assess the performance and effectiveness of the remedy; and
- o a schedule of monitoring and frequency of submittals to the Department.

# **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.

| 12/9/21 | Michael J Cruden         |
|---------|--------------------------|
| Date    | Michael Cruden, Director |
|         | Remedial Bureau E        |

# **DECISION DOCUMENT**

624 River Road North Tonawanda, Niagara County Site No. C932176 December 2021

# **SECTION 1: SUMMARY AND PURPOSE**

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

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

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

### **SECTION 2: CITIZEN PARTICIPATION**

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

DECInfo Locator - Web Application https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C932176

North Tonawanda Public Library 505 Meadow Drive North Tonawanda, NY 14120

Phone: (716) 693-4132

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

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

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

Location: The 624 River Road site is a 4.87-acre site located in an urban area at 624 River Road in North Tonawanda, Niagara County. The site is bounded to the west by the east branch of the Niagara River, to the east by River Road, to the north by Raymond Klimek Veterans Park, and to the south by the 600 River Road Apartments Brownfield site (C932161).

Site Features: The site is relatively flat except for an approximate 2,500-cubic yard stockpile of soil located near the eastern boundary. The western portion of the site contains a one-story occupied office building and paved parking area. The remainder of the site is grass covered with a driveway along the southern border. The western border of the site is an engineered shoreline along the Niagara River.

Current Zoning and Land Use: The site is zoned Waterfront District (WD) and currently supports active commercial use. Surrounding parcels are used for residential, recreation, and general industrial. The nearest residential area is located immediately south of the site with a recreational area immediately to the north of the site.

Past Use of the Site: From at least 1872 until 1972 the site was used for the production of pig iron by the Tonawanda Iron and Steel Company. The Tonawanda Iron and Steel Company property was comprised of the subject site and adjacent properties to the north and south. In addition to iron smelting, the site was used for petroleum storage, rail and barge transport operations, iron slag disposal, and storage of raw materials. The site was vacant from 1972 until 1997, when the current building was constructed.

Site Geology and Hydrogeology: On-site soil consists of a shallow topsoil layer that supports vegetation underlain by historic fill material consisting of brick, concrete, cinders, and iron slag intermingled with silty sands up to twelve feet below ground surface (fbgs). Native soils found below the historic fill material consist of brown silty sands with varying amounts of gravel and dark brown clay.

Groundwater is present at approximately eight to eleven fbgs and flows westerly across the site towards the Niagara River.

A site location map and site plan are attached as Figures 1 and 2, respectively.

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

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

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

### **SECTION 5: ENFORCEMENT STATUS**

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has 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

# 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: <a href="http://www.dec.ny.gov/regulations/61794.html">http://www.dec.ny.gov/regulations/61794.html</a>

#### **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:

arsenic cadmium manganese benzo(a)anthracene benzo(a)pyrene benzo(b)fluoranthene chrysene indeno(1,2,3-cd)pyrene mercury

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

- groundwater
- soil

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

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

There were no IRMs performed at this site during the RI.

# **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.

During the Phase II Environmental Site Assessment and RI, analytical samples were collected from soil and groundwater. Based upon investigations conducted to date, the primary contaminants of concern (COCs) are metals and semi-volatile organic compounds (SVOCs) in soil and metals in groundwater.

Surface Soil: Surface soil samples were collected from zero to two inches below the vegetated surface and analyzed for SVOCs, metals, polychlorinated biphenyls (PCBs), pesticides, and perand polyfluoroalkyl substances (PFAS). No SVOCs, PCBs or pesticides were detected exceeding Restricted-Residential Soil Cleanup Objectives (RRSCOs). No PFAS were detected exceeding guidance values for Restricted-Residential use. The following metals were detected in at least one location exceeding RRSCOs:

- arsenic up to 27.6 parts per million (ppm) (RRSCO 16 ppm)
- cadmium up to 4.61 ppm (RRSCO 4.3 ppm)
- manganese up to 23,700 ppm (RRSCO 2,000 ppm)
- mercury up to 3.02 ppm (RRSCO 0.81 ppm)

Investigation results do not indicate that site contaminants have migrated off-site.

Subsurface Soil: Subsurface soil samples were collected at depths up to sixteen fbgs and analyzed for volatile organic compounds (VOCs), SVOCs, metals, PCBs, pesticides and PFAS. No VOCs, PCBs, or pesticides were detected exceeding RRSCOs. No PFAS were detected exceeding guidance values for Restricted-Residential use. The following metals were detected in at least one location exceeding RRSCOs:

- arsenic up to up to 79.1 ppm (RRSCO 16 ppm)
- cadmium up to 6.53 ppm (RRSCO 4.3 ppm)
- manganese up to 19,200 ppm (RRSCO 2,000 ppm)
- mercury up to 18.8 ppm (RRSCO 0.81 ppm)

The following SVOCs, were detected in at least one location exceeding RRSCOs:

- benzo(a)anthracene up to 3.97 ppm (RRSCO 1 ppm)
- benzo(a)pyrene up to 3.93 ppm (RRSCO 1 ppm)
- benzo(b)fluoranthene up to 3.96 ppm (RRSCO 1 ppm)
- chrysene up to 4.41 ppm (RRSCO 3.9 ppm)
- indeno(1,2,3-cd)pyrene up to 4.07 ppm (RRSCO 0.5 ppm)

During the RI, a radiological gamma survey was completed. A background of approximately 7,500 counts per minute (cpm) was established. The maximum field measurement was found to be 12,719 cpm. Based on the results of the gamma survey, no further action is required at this time.

Investigation results do not indicate that site contaminants have migrated off-site.

Groundwater: Samples were collected from four monitoring wells installed in the overburden and screened at depths ranging from five to seventeen fbgs. Groundwater samples were analyzed for VOCs, SVOCs, metals, PCBs, pesticides, PFAS and 1,4-dioxane. VOCs, SVOCs, PCBs, and

pesticides were not detected above groundwater quality standards (GWQS). PFAS and 1,4-dioxane were not detected exceeding current guidance values. The following metals were detected above GWQS:

- arsenic at 128 parts per billion (ppb) (GWQS 25 ppb)
- manganese at 1,730 ppb (GWQS 300 ppb)

Monitoring well MW-2 has concentrations of arsenic and manganese greater than their respective GWQSs. Both unfiltered and filtered groundwater samples were collected from this well to better characterize the groundwater in this portion of the site, the results are as follows: Unfiltered results:

- arsenic at 500 ppb (GWQS 25 ppb)
- manganese at 1,430 (GWQS 300 ppb)

#### Filtered:

- arsenic at 116 ppb (GWQS 25 ppb)
- manganese at 1,170 (GWQS 300 ppb)

Arsenic and manganese were not detected above their respective GWQS in the upgradient monitoring well or the two downgradient monitoring wells along the site border with the Niagara River.

Groundwater in the overburden is present at approximately eight to eleven fbgs and generally flows west towards the Niagara River. No exceedances of GWQS were observed in the downgradient wells at the site border with the Niagara River. Investigation results do not indicate that off-site groundwater or surface water are impacted by the site.

# **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*.

Access is not restricted and people who enter the site could contact contaminants in the soil by walking on it, digging, or otherwise disturbing the soil. 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 soil vapor (air spaces within the soil), may move into structures 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 structures, is referred to as soil vapor intrusion. Environmental sampling indicates that vapor intrusion in not a concern for on- and off-site structures.

# **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.

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

• Prevent the discharge of contaminants to surface water.

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

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

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

The selected remedy is referred to as the 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; and
- 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. Cover System

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#### 4. Institutional Controls

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 residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or Niagara County DOH; and
- require compliance with the Department approved Site Management Plan.

#### 5. 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 4 above. Engineering Controls: The soil cover discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination or where material exhibiting an elevated radiological signature is identified:
- a provision for further investigation and remediation should the existing structures be demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the on-site building and associated parking area;
- o a provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures:
- o 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 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)
- o provisions for the management and inspection of the identified engineering controls;
- o maintaining site access controls and Department notification; and
- o the steps necessary for the periodic reviews and certification of the institutional and engineering controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- o monitoring of groundwater to assess the performance and effectiveness of the remedy; and
- o a schedule of monitoring and frequency of submittals to the Department.







