DECISION DOCUMENT

Former Breneman Site
Brownfield Cleanup Program
Oswego, Oswego County
Site No. C738046
August 2016

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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Breneman Site
Brownfield Cleanup Program
Oswego, Oswego County
Site No. C738046
August 2016

Statement of Purpose and Basis

This document presents the remedy for the Former Breneman Site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Breneman 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. In-situ chemical Oxidation

In-situ chemical oxidation (ISCO) will be implemented to treat petroleum contamination in soil and groundwater. A chemical oxidant will be injected into the subsurface to destroy the contaminants in an approximately 5,300-square foot area located in the western portion of the site, indicated on Figure 2, where petroleum compounds were detected at elevated concentrations in soil and groundwater. The chemical oxidant will be injected into the overburden via temporary injection points installed using a direct-push drill rig. Approximately 16 injection points will be necessary, spaced approximately 10 feet apart. The byproducts of the ISCO process are non-toxic and/or less toxic than the existing contamination. Injection wells will be installed to facilitate additional injections if necessary based on groundwater monitoring results.

3. Cover System

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

4. Institutional Control

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

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

5. 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 3 above.

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

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

The remedy conforms to the 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.

8/2/16
Date

William L. Daigle
William Daigle, Director
Remedial Bureau D

DECISION DOCUMENT

Former Breneman Site
Oswego, Oswego County
Site No. C738046
August 2016

SECTION 1: SUMMARY AND PURPOSE

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

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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

SECTION 2: CITIZEN PARTICIPATION

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

Oswego Public Library
Attn: Edward Elsner
120 East 2nd Street
Oswego, NY 13126
Phone: 315-341-5867

NYSDEC Region 7
Attn: Joshua Cook
615 Erie Blvd West
Syracuse, NY 13204

Phone: 315-426-7411

Receive Site Citizen Participation Information By Email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Former Breneman Site is located at 8 East Utica Street in an urban area of the City of Oswego. It covers approximately 2.1 acres and is situated on the southwest corner of the intersection of East Utica Street and East First Street, which is also State Route 481.

Site Features: The site is currently vacant. The eastern portion of the property, referred to as the upper portion, is grass-covered and is relatively flat. The western portion of the property is wooded and drops steeply to a property now owned by the City of Oswego and developed as a walkway along the east side of the Oswego Canal and River. Approximately one-third to one-half of the site is wooded.

The Oswego Canal is located approximately 100 feet west of the site. The Oswego Canal is approximately 110 feet wide and is bounded on the west by bulkheads and the Oswego River. The Oswego Canal is connected to the Oswego River through a series of locks, located upstream and downstream of the Former Breneman Site. The Oswego River flows north into Lake Ontario, which is located approximately 5000 feet north of the site.

Current Zoning and Land Use: The site is currently vacant and lies in the B3 Redevelopment zoning district, which allows for commercial uses and certain residential uses (condominiums, multi-family dwellings). The surrounding area consists primarily of residential properties, with some commercial properties along East First Street and East Utica Street.

Past Use of the Site: The site was used for manufacturing purposes from approximately 1834 until 1981. The Brownfield Cleanup Program (BCP) site was a portion of the former manufacturing facility, which extended to the west of the site, covering approximately four to five acres. From 1834 through approximately 1954 the facility was used to manufacture fabric. From approximately 1954 through 1982 the site was owned by Breneman of Wisconsin, Inc., which manufactured window shades at the site until about 1981. It was reported that industrial wastes were formerly disposed of on the property.

For a time the Breneman facility was divided by a canal which was referred to as the “hydraulic canal” and which was used for power generation. It was present on maps from 1890 through

1964, but it has since been filled. It appears a portion of the hydraulic canal extended onto the western portion of the BCP site. It was reported that wastes were formerly disposed of in the hydraulic canal.

Several paints, dyes, oils, organic solvents and plasticizers were used in the manufacturing processes at the facility, including acetone, methyl ethyl ketone (MEK, also known as 2-butanone), naphtha, polyvinyl chloride resin, and dioctyl phthalate.

Chemical and petroleum storage tanks were formerly located on the BCP site including both aboveground storage tanks (ASTs) and underground storage tanks (USTs). At least two storage tanks were located outdoors on the BCP site, including an approximately 5,000 gallon acetone tank and an approximately 10,000 gallon MEK tank. There was also a 500 gallon UST used to store dioctyl phthalate, the location of which is unknown. An approximately 100 gallon tank containing heating oil was also identified in 1991 within a building on the BCP site. Other tanks identified inside of the buildings include: four 20,000 gallon tanks, three 10,000 gallon tanks, six 5000 gallon tanks, and four 2000 gallon tanks. There are no known tanks remaining on the site.

A number of transformers were also present on the site, several of which contained polychlorinated biphenyls (PCBs) which were removed from the facility by the NYSDEC when responding to a spill of transformer oil. Three leaking transformers were located on the BCP site and at least eight transformers which contained oil with PCBs at concentrations greater than 50 ppm were removed from the facility and properly disposed of off-site. All of those PCB transformers were located on the BCP site. In addition, four 55-gallon drums of lube/hydraulic oil, two 55-gallon drums of a powdered material and one 55-gallon drum of solidified paint were removed and disposed of off-site as non-hazardous waste.

The on-site buildings were demolished between 1996 and 1998 with some of the demolition debris disposed of on-site. Two fuel oil USTs and one solvent AST were reportedly removed during building demolition activities.

Geology and Hydrogeology: Two geologic units were identified at the site: fill and glacial till. The fill varies in depth from a couple feet up to greater than 12 feet in the southern portion of the site. In the area of the former buildings the fill contained a high percentage of brick. In the southern portion of the site the fill contained debris, which was reportedly generated by road construction projects conducted by the City of Oswego. Debris encountered in that area included asphalt and stone material that appeared to be road curbs. The glacial till unit consisted of a very dense sandy silt and silty sand with some gravel. The till in this area is underlain by Oswego Sandstone bedrock.

Groundwater was reported to be present at depths ranging from approximately five feet (near the base of the steep slope) to 22 feet below grade (on the upper portion of the site). Groundwater flow is towards the west/southwest towards the Oswego River.

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

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does 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.

The Department will evaluate the off-site petroleum contamination for action under the Spills program. If action is determined necessary under the Spills program, the Department will seek to identify any parties (other than the Volunteer) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). If a remedial program is not initiated by any PRPs, the Department will evaluate the off-site contamination for action under the Spill Fund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

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: 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:

toluene
ethylbenzene
xylene (mixed)
isopropylbenzene
n-propylbenzene
barium
lead
mercury
cyanides(soluble cyanide salts)
polychlorinated biphenyls (PCB)
benzo(a)pyrene

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.

Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, cyanide, polychlorinated biphenyls (PCBs), and pesticides.

Based upon investigations conducted to date, the primary contaminants of concern include: petroleum; VOCs (including, toluene, ethylbenzene, xylenes, isopropylbenzene and n-propylbenzene); cyanide; metals (including barium, lead and mercury); PCBs; and polycyclic aromatic hydrocarbons (PAHs).

Soil – Contaminants identified in surface soil (zero to two inches) include PAHs and PCBs. These contaminants are present in surface soils at concentrations slightly greater than unrestricted use soil cleanup objectives (SCOs), and in a very few instances at concentrations greater than commercial use SCOs. PCBs were detected at concentrations up to 2.0 ppm, compared to their commercial use SCO of 1.0 ppm.

There is an area of gross soil contamination in the subsurface in the western portion of the site, where soil is impacted primarily by petroleum; however, other contaminants are also present within this area. The impacts, which were identified in the field through heavy staining of the soil, strong odors and elevated readings on a photoionization detector (up to 2,500 parts per million), are present at depths ranging from approximately 8 feet below grade to approximately 14 feet below grade. The impacts are present beneath the steep slope and extend to the western site boundary, which is the downgradient site boundary. The contamination extends north from the main area of impact at lower concentrations, and may be present along the former hydraulic canal. It appears this northern extension of impacts does not extend to the northern site boundary and does not extend east, beneath the slope. The data indicate this area of contamination extends off the BCP site to the west.

Several sampling locations within the area of gross contamination contained petroleum-related VOCs at concentrations greater than SCOs for the protection of groundwater, and VOCs exceeded their SCOs for the protection of public health for commercial use in one location. Xylenes were detected at concentrations up to 4,232 parts per million (ppm) in this area, compared to its SCO for the protection of groundwater of 1.6 ppm and its SCO for the protection of public health for commercial use of 500 ppm. PAHs were present in this area at concentrations less than unrestricted use SCOs or slightly greater than unrestricted use SCOs. Cyanide was detected at a concentration of 684 ppm at one location compared to its SCO for the protection of public health for commercial use of 27 ppm. Cyanide was detected at other locations within or near this area at concentrations less than its unrestricted use SCO, which is

also 27 ppm. Barium, lead and mercury were detected in this area at concentrations up to 4,020 ppm, 7,700 ppm and 6.47 ppm, respectively, as compared to their respective commercial use SCOs of 400 ppm, 1,000 ppm and 2.8 ppm. Bis(2-ethylhexyl)phthalate was detected in this area at concentrations up to 228 ppm, compared to its SCO for the protection of public health for residential use of 50 ppm. There is not a commercial use SCO defined for this contaminant. PCBs exceeded their commercial use SCO at one location within this area, at a concentration of 1.77 ppm.

Metals and PAHs were also detected in sub-surface soil at locations outside of the area of petroleum impacts at concentrations that exceeded their commercial use SCOs. Barium, lead and mercury were detected at concentrations up to 2,260 ppm, 9,020 ppm, and 13.1 ppm, respectively. Benzo(a)pyrene, a PAH, was detected in several locations at concentrations up to 3.86 ppm.

Groundwater – Groundwater is impacted by petroleum-related VOCs along the western edge of the site, which is the downgradient edge of the site. Ethylbenzene, isopropylbenzene, and xylene were detected at concentrations up to 41.4 parts per billion (ppb), 28.0 ppb, and 147 ppb, respectively, exceeding their groundwater standard, which is 5 ppb for each. Methylcyclohexane was also detected at elevated concentrations in this area; at concentrations up to 128 ppb. Lead was detected at concentrations up to 243 ppb in this area, which exceeds its groundwater standard of 25 ppb. It is likely the groundwater impacts extend off the BCP site to the west.

Soil Vapor and Indoor Air – VOCs are present in soil and groundwater at elevated levels in the western portion of the site. No sub-slab vapor or indoor air samples could be collected because there are no buildings on site.

Special Resources Impacted/Threatened: No direct migration pathway from the site to the Oswego River and Canal west of the site have been identified.

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.*

The site is not fenced and persons who enter the site could contact contaminants in the soil by walking on the soil, digging or otherwise disturbing the soil. People are not drinking contaminated groundwater because the area is served by a public water supply that is not affected by site-related contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy. Off-site soil vapor intrusion is not a concern.

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

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 In-Situ Chemical Oxidation and Cover System remedy.

The elements of the selected remedy, as shown in Figure 2, 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. In-situ chemical Oxidation

In-situ chemical oxidation (ISCO) will be implemented to treat petroleum contamination in soil and groundwater. A chemical oxidant will be injected into the subsurface to destroy the contaminants in an approximately 5,300-square foot area located in the western portion of the site, indicated on Figure 2, where petroleum compounds were detected at elevated concentrations in soil and groundwater. The chemical oxidant will be injected into the overburden via temporary injection points installed using a direct-push drill rig. Approximately 16 injection points will be necessary, spaced approximately 10 feet apart. The byproducts of the ISCO process are non-toxic and/or less toxic than the existing contamination. Injection wells will be installed to facilitate additional injections if necessary based on groundwater monitoring results.

3. Cover System

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

4. Institutional Control

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

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

5. 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 3 above.
Engineering Controls: The cover system discussed in Paragraph 2 above.

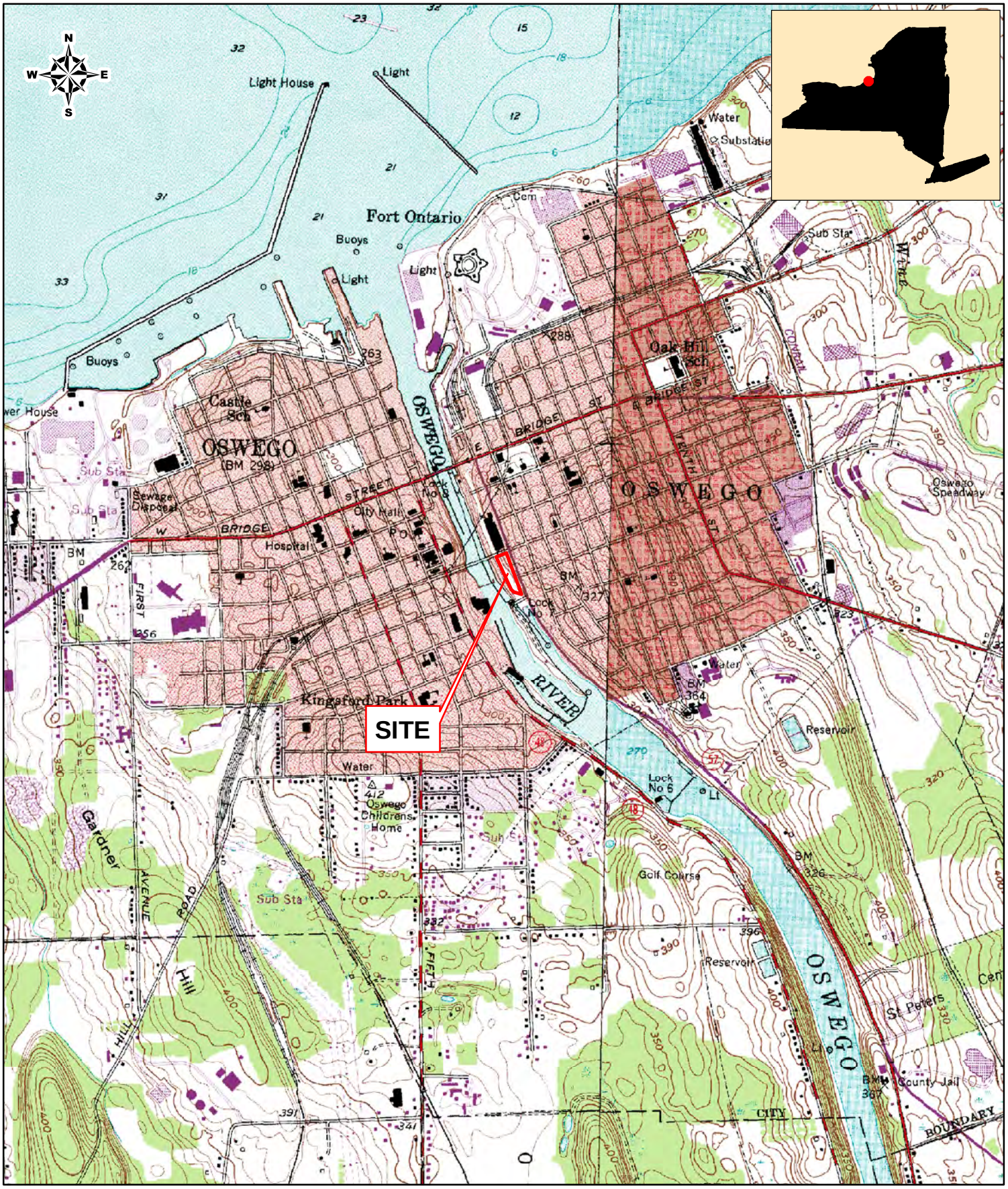
This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department; and

• monitoring for vapor intrusion for any future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



214001

FIGURE 1

DRAWING TITLE

SITE LOCATION WITH USGS 7.5 MINUTE TOPO MAP

1:24,000

DATE: 10/10/2012

DESIGNED BY: JAJ
DRAWN BY: JAJ
REVIEWED BY: JAJ

PROJECT/CLIENT

Former Breneman Site

NYSDEC BCP #C738046
Remedial Altenratives Analysis
Remedial Action Work Plan
8 East Utica St., Oswego, NY

LABELLA Associates, D.P.C.
Engineering
Architecture
Environmental
Planning

300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585)454-3066

www.labellapc.com

Notes:
(1) 2011 Aerial photograph obtained from GIS Clearinghouse.

I:\Canalview Development\214001 - 8 East Utica Street - BCP Remedial Inv\Drawings\RAA-RAWP\Fig5.mxd

LABELLA Associates, D.P.C.

300 STATE STREET
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Remedial Alternatives Analysis/ Remedial Action Work Plan

Brownfield Cleanup Program Site C738046
Former Breneman Site

Selected Remedy

From Figure 5 of Alternatives Analysis/Remedial Action Work Plan dated February 2016 by LaBella Associates, DPC

Modified 2/2/3/16 by NYSDEC, JPC
Changed figure title and number, and changed text in legend

0 15 30 60

1 inch = 25 feet

Intended to print in ANSI D size.

214001

FIGURE **2**