

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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March 7, 2016

Mr. Keith A. Nagel
Tecumseh Redevelopment Inc.
4020 Kinross Lakes Parkway
Richfield, OH 44286

RE: Tecumseh Phase III-3 Business Park
Site ID No. C915199C, Lackawanna (C), Erie County
Decision Document

Dear Mr. Nagel:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the section(s) of the Remedial Investigation/Alternatives Analysis applicable to the Tecumseh Phase III-3 Business Park Site dated August 2011 and prepared by Benchmark on behalf of Tecumseh Redevelopment Inc.

Enclosed is a copy of the Department's Decision Document for the site. The remedy is to be implemented in accordance with this Decision Document. Please ensure that a copy of the Decision Document is placed in the document repository(ies).

Please contact the Department's Project Manager, Maurice Moore, at (716) 851-7220 or maurice.moore@dec.ny.gov at your earliest convenience to discuss next steps.

Sincerely,



Michael J. Cruden, P.E.
Director
Remedial Bureau E
Division of Environmental Remediation

Enclosure

cc: R. Schick/M. Ryan, DER
C. Staniszewski/M. Moore/K. Draves, Region 9
K. Anders, NYSDOH
C. Bethoney, NYSDOH
M. Forcucci, NYSDOH
T. Forbes, P.E., Benchmark
C. Slater, Esq., The Slater Law Firm



Department of
Environmental
Conservation

DECISION DOCUMENT

Site III-3 Tecumseh Phase III Business Park
Brownfield Cleanup Program
Lackawanna, Erie County
Site No. C915199C
March 2016



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

DECLARATION STATEMENT - DECISION DOCUMENT

Site III-3 Tecumseh Phase III Business Park
Brownfield Cleanup Program
Lackawanna, Erie County
Site No. C915199C
March 2016

Statement of Purpose and Basis

This document presents the remedy for the Site III-3 Tecumseh Phase III Business Park 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 Site III-3 Tecumseh Phase III Business Park 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. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principals 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 gas 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.

2. 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 other approved cover in areas where the upper one foot of exposed surface soil will exceed the

applicable soil cleanup objectives (SCOs). Where cover is required it will be a minimum of one foot thick, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The 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).

An additional requirement for site cover is necessary over an approximately 585 feet by 160 feet area demarcated as containing ACM. The area specific cover will consist of a non-vegetated cover (per 6NYCRR Part 375 and 40 CFR 61.151), consisting of an additional one foot of approved cover meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The entire area will be enclosed with a 6 feet high chain link fence with a locking double-access gate and identification/warning signs.

3. Imposition of an institutional control in the form of an environmental easement is required for the controlled property that:

- allows for restricted use of the ACM containing area and prohibits future occupied development within that area;
- allows the use and development of the remaining 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;
- requires compliance with the Department approved Site Management Plan; and
- 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.)

4. A Site Management Plan is required, which includes, but not limited to, the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions for the site noted above and details the steps necessary to ensure the following controls remain in place and effective;

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- 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 the performance and effectiveness of the site cover;
- monitoring of groundwater to assess the performance and effectiveness of the remedy; and
- 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.

Michael J Cruden

Digitally signed by Michael J Cruden

DN: cn=Michael J Cruden, o=DER, ou=RBE,
email=mjcruden@gw.dec.state.ny.us, c=US

Date: 2016.03.02 13:06:14 -05'00'

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Site III-3 Tecumseh Phase III Business Park
Lackawanna, Erie County
Site No. C915199C
March 2016

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site 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:

Lackawanna Public Library
Attn: Jennifer Hoffman
560 Ridge Road
Lackawanna, NY 14218
Phone: 716-823-0630

NYS DEC
Attn: Maurice Moore
270 Michigan Ave.
Buffalo, NY 14203

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:

Tecumseh Phase III-3 site (Site) is one of 10 sub-parcels comprising the Tecumseh Phase III Business Park (Phase III). Phase III is located at 2303 Hamburg Turnpike in the City of Lackawanna, New York. Situated in an industrial area, Phase III is part a larger property that once included the Bethlehem Steel Company (BSC) and is identified on the Erie County Tax maps as SBL 141.11-1.111. Phase III is located west of Route 5 and the Tecumseh Phase II Business Park, to the south of Gateway Metroport and east of the remaining Former Bethlehem Steel property and Lake Erie.

Site Features:

Located in the southern portion of Phase III the Site is a 9.18 acre, irregularly shaped, sub-parcel located to the north of sub-parcel Phase III-2. Approximately one third of the site is a rectangular area identified with signs warning of the presence of Asbestos Containing Material (ACM).

The parcel is flat, covered with slag fill. Most of the business park is vegetated with natural grasses, shrubs and poplar trees typical of a primary shrub-young forest ecosystem. Also typical are remnants of former steel manufacturing buildings and foundations. The entire BSC site is fenced with vehicle access limited to one automatic gate.

Current Zoning and Land Use:

The Site is zoned medium industrial. Surrounding uses specific to the site include: adjacent and to the south and west is a lumber transfer facility, further south is metals recycling facility further to the west is vacant land that was mined for slag, and to the north is Smokes Creek and sub-parcel Phase III-4.

Past Use of the Site:

Phase III was formerly a portion of BSC's steelmaking operations. Specific steel making facilities on or proximate to the Site that contributed to soil impacts included:

- Rail corridor and roadway
- Soaking Pit Building

Future use anticipates commercial or industrial re-use.

Site Geology and Hydrology:

The entire Phase III is filled with between two to eight feet of steel and iron-making slag as well as other fill material being used for backfill. Underlying the fill material are lacustrine silts and clays. At the site native material is encountered from about 12 to 14 feet below ground surface.

Bedrock is Middle Devonian, Levanna shale and Stafford limestone of the Hamilton Group within the Skaneateles Formation. Bedrock varies from about 24 feet deep in the southeastern corner of the site to 45 feet deep near the northern border of the site.

Due to the porous nature of the slag/soil fill there is very little storm water retention or surface runoff, as most of the precipitation seeps into the highly permeable slag/soil fill. Any surface waters would tend to flow toward Smokes Creek which empties to the west into Lake Erie.

Groundwater when encountered is about 7 feet deep trending northerly and westerly toward Lake Erie.

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.

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:

benzo(a)anthracene	arsenic
benzo(a)pyrene	lead
benzo(b)fluoranthene	dibenz[a,h]anthracene
indeno(1,2,3-CD)pyrene	asbestos
cadmium	

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.

Nature and Extent of Contamination:

Prior to Remediation:

Based upon investigations conducted to date, the primary contaminants of concern for soils at the Tecumseh Phase III-3 site are metals, such as arsenic, cadmium and lead and asbestos. Contaminants of concern to a lesser extent are semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons, such as benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

Metals contamination is consistent with the former site use as a steel manufacturing facility. Widespread exceedances of unrestricted use site cleanup objectives (SCOs) are common in the soil and fill. When compared to the unrestricted SCOs of 13 ppm arsenic, ranging from 22.1 ppm to 57.8 ppm exceeds SCOs in 5 of 5 of the samples and when compared to the commercial SCO of 16 ppm also exceeds in 5 of 5 samples. Cadmium from 1.2 ppm to 20.8 ppm exceeds the unrestricted SCO of 2.5 ppm in 3 of 5 samples but exceeds the commercial SCO of 9.3 in only one sample. Lead, from 114 ppm to 1,200 ppm, exceeds unrestricted SCOs (63 ppm) in 5 of 5 samples but when compared to commercial SCOs (1,000 ppm) only one sample exceeded the SCO.

Historic disposal of asbestos containing material (ACM) has been documented in a portion of the Site. It is reputed that the ACM was disposed in a 15 feet wide by 16 feet deep ingot buggy tunnel under the slab of the soaking pit building however, surface sampling and test pit excavations failed to show widespread disposal.

SVOCs, like metals, are ubiquitous throughout the Phase III Business Park. Most of the contaminants are polycyclic aromatic hydrocarbons (PAHs) associated with activities that include, burning of fossil fuels and heavy rail use, both of which were common at the former steel mill.

At the site SVOCs exceed both the unrestricted SCO and commercial SCO. When compared to unrestricted SCO benzo(a)pyrene ranging from 1.4 to 15 ppm, benzo(a)anthracene from 1.2J ppm to 21 ppm and benzo(b)fluoranthene from 1.4 ppm to 20 ppm all exceed the SCO of 1 ppm in 5 of 5 samples. Indeno(1,2,3-cd)pyrene, with a SCO of 0.5 ppm ranging from 0.93 ppm to 7.9 ppm exceeds the SCO in 5 of 5 samples and dibenzo(a,h)anthracene ranging from not detected to 3.1 ppm exceeded the SCO of 0.33 ppm in 3 of 5 samples.

When compared to the commercial use SCO only benzo(a)pyrene (1 ppm) exceeded the same number of samples as unrestricted use with 5 of 5 samples exceeding. Benzo(a)anthracene (5.6 ppm) and benzo(b)fluoranthene (5.6 ppm) exceeded SCO in 2 of 5 samples. Indeno(1,2,3-cd)pyrene with an SCO of 5.6 ppm and dibenzo(a,h)anthracene with an SCO of 0.56 exceeded SCO in only 1 of 5 samples

No samples detected any volatile organic compounds (VOCs.)

Groundwater was sampled at two downgradient monitoring wells and pH at 9.9 units and 9.41 units exceeded the groundwater quality standard (GwQS) from 6.5 to 8.5 units. High pH groundwater is common in areas where large quantities of limestone or slag were used, stored or produced. Arsenic at 0.0334 ppb exceeded the GwQS of 0.025 ppb but soluble arsenic at 0.0208 ppb is below the GwQS. SVOCs including naphthalene at 34 ppb, (10 ppb) and chrysene at 0.33J (0.002) both exceed the GwQS, however, groundwater is not used and is deed restricted from use for either potable or non-potable purposes without treatment. The site does not pose a significant threat to the closest surface water (i.e., Smokes Creek.)

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 completely fenced, which restricts public access. However, persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. A groundwater use restriction is in place for the site and therefore, people are not coming into contact with the contaminated groundwater. In addition, people are not drinking the contaminated groundwater as the area is served by a public water supply that is not affected by this contamination.

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.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

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 Tecumseh Phase III-3 remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principals 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 gas 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.

2. 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 other approved cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where cover is required it will be a minimum of one foot thick, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The 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).

An additional requirement for site cover is necessary over an approximately 585 feet by 160 feet area demarcated as containing ACM. The area specific cover will consist of a non-vegetated cover (per 6NYCRR Part 375 and 40 CFR 61.151), consisting of an additional one foot of approved cover meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The entire area will be enclosed with a 6 feet high chain link fence with a locking double-access gate and identification/warning signs.

3. Imposition of an institutional control in the form of an environmental easement is required for the controlled property that:

- allows for restricted use of the ACM containing area and prohibits future occupied development within that area;
- allows the use and development of the remaining 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;
- requires compliance with the Department approved Site Management Plan; and
- 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.)

4. A Site Management Plan is required, which includes, but not limited to, the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions for the site noted above and details the steps necessary to ensure the following controls remain in place and effective;

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- 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.

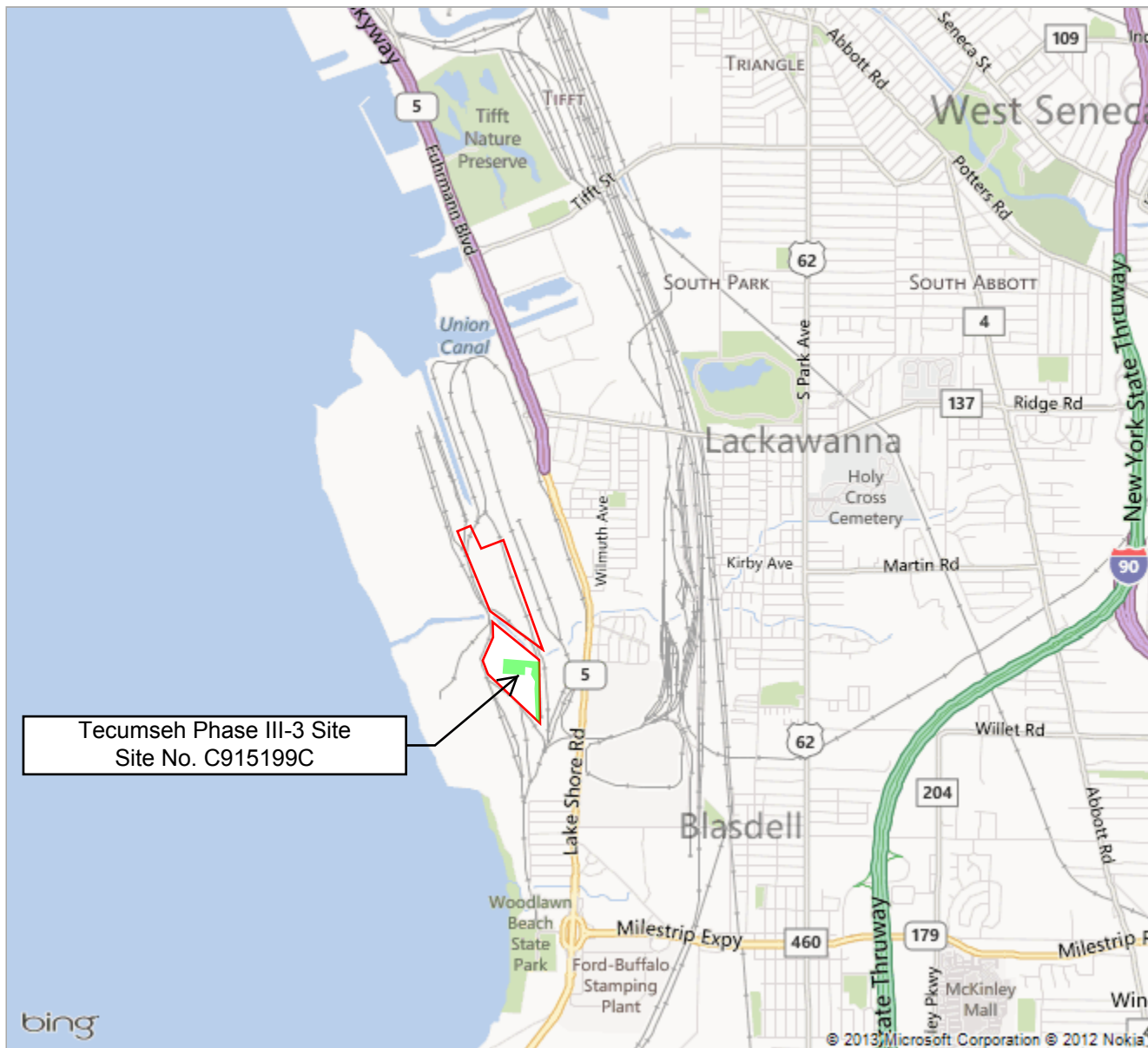
b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

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

FIGURE 1

Site Location
Tecumseh Phase III Business Park

Phase III-3 Site
Site No. C915199C



One foot cover meeting SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d)
Two foot of cover over as set forth in 6 NYCRR Part 375-6.7(d) over area of "suspected ACM"

