

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E  
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December 30, 2016

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

RE: Sites II-1, II-3, II-8 & II-9  
Tecumseh Phase II Business Park Site  
Site ID Nos. C915198, C915198C, C915198H & C915198I  
Lackawanna (C), Erie County  
Decision Documents

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 Site II-1, II-3, II-8 & II-9 Tecumseh Phase II Business Park dated March 2012 and prepared by Benchmark on behalf of Tecumseh Redevelopment Inc.

Enclosed are copies of the Department's Decision Documents for the sites. The remedies are to be implemented in accordance with these Decision Documents. Please ensure that a copy of each Decision Document is placed in the document repository.

Please contact the Department's Project Manager, Maurice Moore, at (716) 851-7220 or [maurice.moore@dec.ny.gov](mailto: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, NYSDEC  
C. Staniszewski/M. Moore/K. Draves, Region 9  
K. Anders/C. Bethoney/S. Bogardus, NYSDOH  
T. Forbes, P.E., Benchmark  
C. Slater, Esq., The Slater Law Firm



Department of  
Environmental  
Conservation

# DECISION DOCUMENT

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Site II-9 Tecumseh Phase II Business Park  
Brownfield Cleanup Program  
Lackawanna, Erie County  
Site No. C915198I  
December 2016



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

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Site II-9 Tecumseh Phase II Business Park  
Brownfield Cleanup Program  
Lackawanna, Erie County  
Site No. C915198I  
December 2016

## **Statement of Purpose and Basis**

This document presents the remedy for the Site II-9 Tecumseh Phase II 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 II-9 Tecumseh Phase II 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 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 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. 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). In areas where building foundations or building slabs preclude contact with the soil, the requirements for a site cover will be deferred until such time that they are removed.

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

- 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;
- 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.)

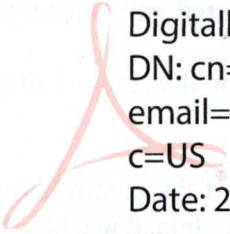
4. A Site Management Plan is required, which includes, but not limited to, the following:

- 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;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- a Monitoring Plan to ensure groundwater quality and to assess the performance and effectiveness of the site cover;
- 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.

### **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

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Date

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Michael Cruden, Director  
Remedial Bureau E

# DECISION DOCUMENT

Site II-9 Tecumseh Phase II Business Park  
Lackawanna, Erie County  
Site No. C915198I  
December 2016

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## **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:**

The Tecumseh Phase II-9 site (Site) is one of 12 sub-parcels comprising the Tecumseh Phase II Business Park (Phase II). Phase II is located at 2303 Hamburg Turnpike in the City of Lackawanna, Erie County. Situated in an industrial area, Phase II is part of a larger property that once included the Bethlehem Steel Company (BSC) and is identified on the Erie County Tax maps as SBL 141.11-1-50. Phase II is located west of Route 5, south of the Tecumseh Phase I Business Park, and east of the Tecumseh Phase III Business Park.

### **Site Features:**

Located within the southern portion of Phase II the site is a 11.98 acre, triangular shaped, sparsely vegetated, parcel that is vacant except for a few rail sidings. The mostly rectangular Phase II is approximately 5,800 feet long, averages 1,250 feet wide and is 142.5 acres in size. Bisected by Smokes Creek Phase II is flat, covered with slag fill and remnants of former steel manufacturing buildings and foundations. Most of the business park is vegetated with natural grasses, shrubs and poplar trees typical of a primary shrub-young forest ecosystem. The entire BSC site is fenced with vehicle access limited to one automatic gate.

### **Current Zoning and Land Use:**

Phase II and the Site are zoned medium industrial. Surrounding uses near the site include: to the east, across Route 5 is commercial and residential, adjacent the west, a rail corridor; further west, is a lumber redistribution operation and an ethanol transfer operation; to the south are rail lines and industrial areas. Future use anticipates industrial re-use.

### **Past Use of the Site:**

Formerly Phase II was a portion of BSC's steelmaking operations. Specific processes and steelmaking facilities performed on or proximate to the Site included:

- Chipping Transfer Beds
- Craneways
- Cold saws
- Electrical transformers

- Covered runways
- Cooling beds.

#### Site Geology and Hydrology:

The entire Phase II 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 fill material are lacustrine silts and clays. Native materials are encountered from about 7 to 11 feet below ground surface.

Bedrock is Middle Devonian age, Skaneateles Formation, consisting of Levanna shale and Stafford limestone of the Hamilton Group. Bedrock varies from about 34 feet deep in the northwestern corner of the site to 45 feet deep near the southern portion of Phase II.

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 flow into Smokes Creek or the South Water Return Trench which parallels the western border of the property and flows southerly where it empties into Smokes Creek which discharges to the west into Lake Erie.

Groundwater, when encountered, is about 6 feet below ground surface trending westerly and northerly 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 that restrict the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were evaluated in addition to an alternative which would allow for unrestricted use of the site.

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

### **SECTION 5: 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:

- 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)pyrene	arsenic
dibenz[a,h]anthracene	lead
benzo(a)anthracene	cyanides(soluble cyanide salts)
indeno(1,2,3-CD)pyrene	polychlorinated biphenyls (PCB)

petroleum products

chromium

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

- 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.

The following IRM has been completed at this site based on conditions observed during the RI.

### **Railroad Realignment Hot Spot Removal**

Soils impacted with levels of poly-chlorinated biphenyls (PCBs) exceeding site cleanup objectives for commercial use, as set forth in 6 NYCRR Part 375-1.8(g)(2)(iii), were discovered during a supplemental test pit program conducted in support of a realignment of the South Buffalo Railroad. One test pit, RR TP-30 contained PCBs at 52 parts per million (ppm).

An IRM was completed in conformance with a 2010 Department approved IRM Work Plan. The IRM removed and disposed off-site approximately 258 tons of contaminated soils and slag.

The excavations were restored with placement of backfill meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use and establishment of an active rail line. A Construction Completion Report detailing the removal effort and final disposal of removed material was complete in October 2010.

## **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:**

The nature and extent of contamination is consistent with the former site use as a steel manufacturing facility. Based upon investigations conducted to date, the primary contaminants of concern for soils at the Tecumseh Phase II-9 site are metals, including arsenic, chromium, cyanide, lead and polychlorinated bi-phenyls (PCBs). Contaminants of concern to a lesser extent are semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), such as benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

Widespread exceedances of unrestricted use site cleanup objectives (SCOs) for metals are common in the soil and fill. When compared to the unrestricted SCO of 13 ppm for arsenic, levels ranging from 6.6 ppm to 37.1 ppm exceed the SCO in 10 of 13 samples and when compared to the commercial SCO of 16 ppm, also exceed in 8 of 13 samples. Chromium from 29.2 ppm to 176 ppm exceeds the unrestricted SCO of 1 ppm in 13 of 13 samples but when compared to the commercial SCO of 400 ppm no sample exceeded. Lead, from 121 ppm to 1,090 ppm, exceeds the unrestricted SCO (63 ppm) in 13 of 13 samples but when compared to the commercial SCO of 1,000 ppm, only one sample exceeded the SCO. Cyanide from ND (not detected) to 27.8 ppm exceeded both the unrestricted and commercial SCOs of 27 ppm in 1 of 8 samples.

SVOCs, like metals are widespread throughout the Phase II Business Park. Most of the contaminants are PAHs and are usually associated with those activities that include burning of fossil fuels and heavy rail use, both of which were ubiquitous at the former steel mill. At the Site the above noted contaminants exceed the unrestricted SCOs in almost all of the samples. However, when compared to the commercial use SCOs benzo(a)pyrene from 0.28 ppm to 8.5 ppm, exceeded SCO of 1 ppm with 4 of 9 samples exceeding. Dibenzo(a,h)anthracene, ranging from 0.07 ppm to 1.7 ppm with an SCO of 0.56 ppm exceeded the commercial SCO in 3 of 10 samples. With commercial SCOs of 5.6 ppm, benzo(a)anthracene from 0.25 ppm to 7.6 ppm, and indeno(1,2,3-cd)pyrene from 0.22 ppm to 6 ppm, each exceeded SCOs in 1 of 9 samples.

PCBs ranging from ND to 52 ppm exceeded the commercial SCOs in soils in 2 of 4 samples.

No VOCs exceeded unrestricted SCOs.

Groundwater at the Tecumseh Business Park property has been impacted by years of industrial activity. Groundwater pH from a low value of 6.28 to high value of 9.28 has exceeded quality standards (GwQS) of 6.5 - 8.5. Metals, such as, iron as high as 1.43 ppm exceeds the standard of 0.3 ppm, magnesium as high as 58.2 ppm exceeds groundwater guidance values of 35 ppm and arsenic as high as 0.49 ppm exceeds the GwQS of 0.25 ppm. VOCs and SVOCs were not detected or well below groundwater quality standards. Groundwater was not sampled on this particular sub-parcel.

#### **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. Groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply.

#### **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**

- Remove the source of ground or surface water contamination.

### **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.
- 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 Site Cover with Institutional Controls 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 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 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. 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). In areas where building foundations or building slabs preclude contact with the soil, the requirements for a site cover will be deferred until such time that they are removed.

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

- 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;
- 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:

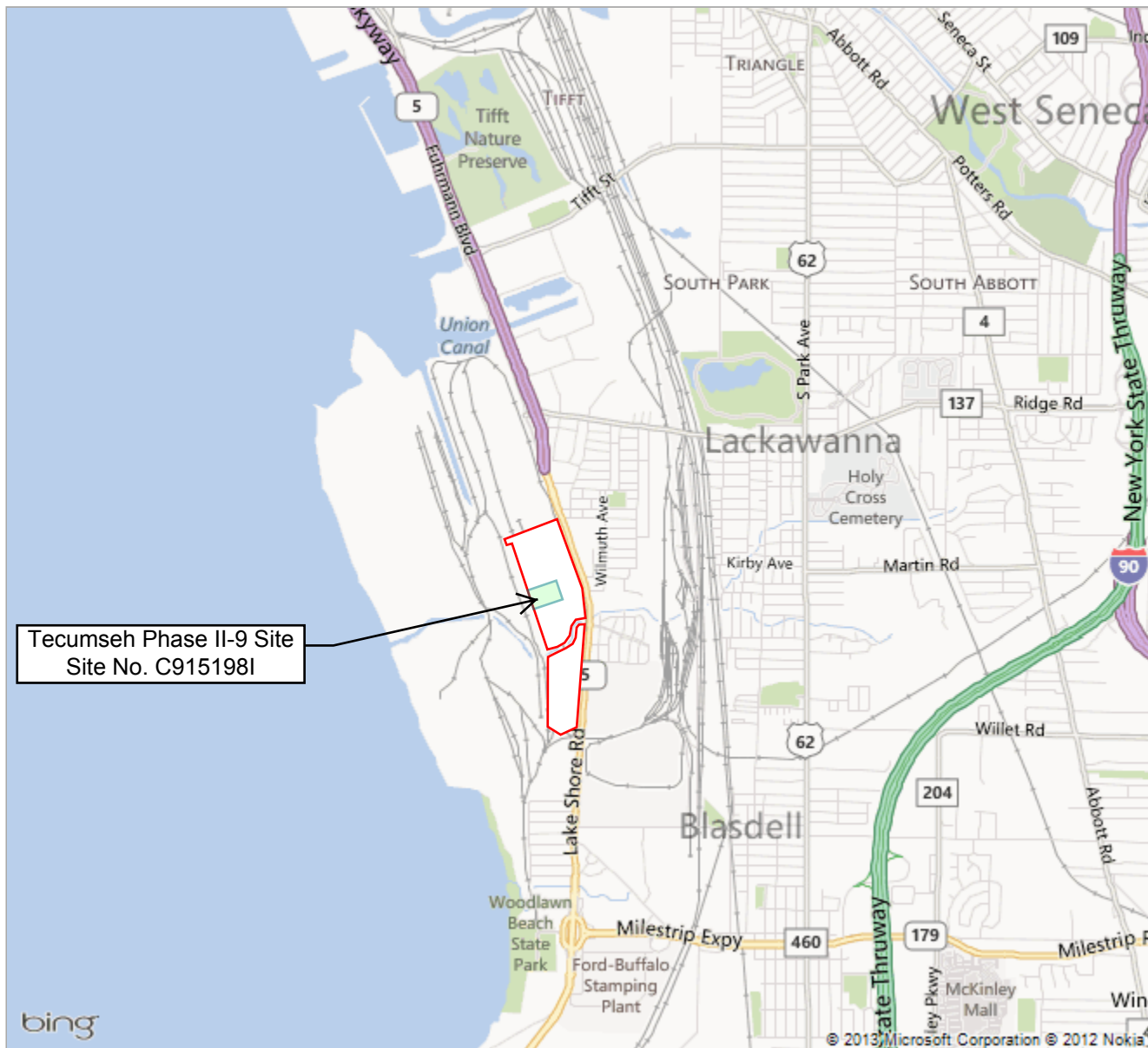
- an Institutional and Engineering Control Plan that identifies all use restrictions for the site noted above and details the steps necessary to ensure the following controls remain in place and effective;
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);

- a Monitoring Plan to ensure groundwater quality and to assess the performance and effectiveness of the site cover;
- 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.

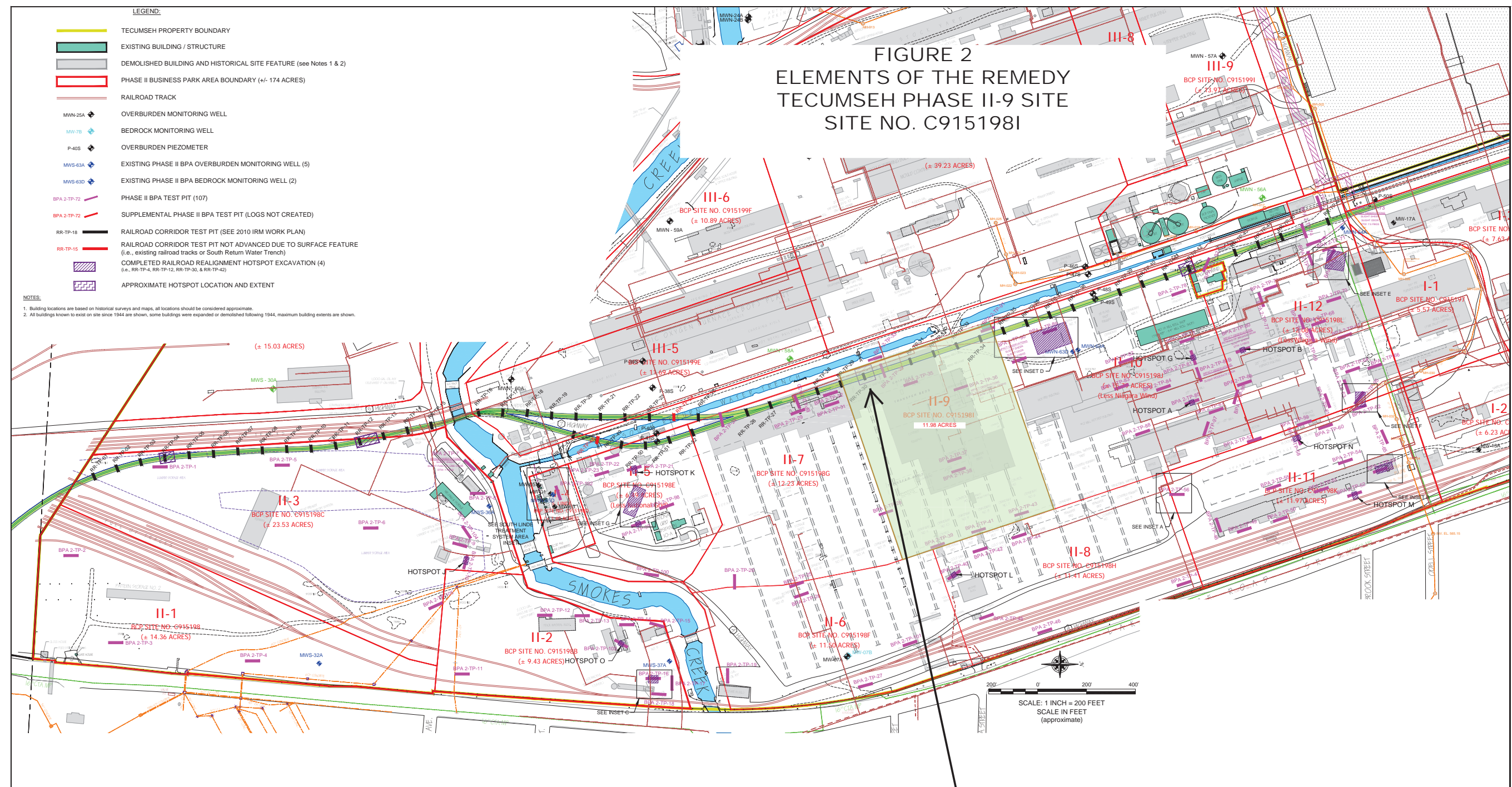
FIGURE 1

Site Location  
Tecumseh Phase II Business Park

Phase II-9 Site  
Site No. C915198I







RR Hotspot - Removal (IRM - Complete 2013)

One foot cover meeting SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d)