NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor, Albany, NY 12233-7017
P: (518) 402-9813 I F: (518) 402-9819
www.dec.ny.gov

January 6, 2017

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

RE: Site(s) II-2, II-5, II-6, II-7, II-10, II-11 & II-12
Tecumseh Business Park Sites
Site ID Nos. C915198B, C915198E, C915198F, C915198G, C915198J, C915198K & C915198L
Lackawanna (C), Erie County
Decision Document(s)

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-2, II-5, II-6, II-7, II-10, II-11 & II-12 Tecumseh Phase II Business Park dated March 2012 and prepared by Benchmark on behalf of Tecumseh Redevelopment Inc.

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

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,

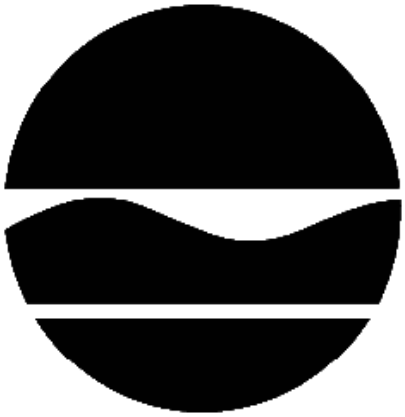
Michael J. Cruden, P.E.
Director
Remedial Bureau E
Division of Environmental Remediation

Enclosure

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

DECISION DOCUMENT

Site II-10 Tecumseh Phase II Business Park
Brownfield Cleanup Program
Lackawanna, Erie County
Site No. C915198J
January 2017



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

DECLARATION STATEMENT - DECISION DOCUMENT

Site II-10 Tecumseh Phase II Business Park
Brownfield Cleanup Program
Lackawanna, Erie County
Site No. C915198J
January 2017

Statement of Purpose and Basis

This document presents the remedy for the Site II-10 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-10 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. Excavation and off-site disposal of contaminant source areas, including:
grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other

structures associated with a source of contamination; and non-aqueous phase liquids.

3. Ex-situ bio-remediation will be implemented to treat two petroleum impacted areas totaling approximately 2,300 cubic yards of fill material. The contaminated soil will be excavated and treated on-site in a manner encouraging naturally occurring biological processes. Once the soils have been treated to goals as set forth in 6 NYCRR Part 375-6.7(d) for commercial use* the stabilized soil will be used as on-site backfill as needed and then be covered as described in element 5 to prevent direct exposure. This treatment changes the contamination from a soluble form to a stable, insoluble compound to reduce or eliminate the matrix as a source of contamination.

* If after 12 months the material is sampled and fails to attain the goals as set forth in 6 NYCRR Part 375-6.7(d) for commercial use the contaminated material will be disposed, properly, off-site.

4. In-situ stabilization (ISS) will be implemented to treat a weathered organic fill area 20 feet by 20 feet over a four-foot depth 5 to 9 feet below ground surface, located in the north central portion of the site, as indicated on Figure 2. ISS is a process that uses a stabilizing agent which chemically changes contamination to make it less soluble. The contaminated soil will be treated in place with stabilizing agents using a direct push rig or augers. The stabilized soil will then be covered with a cover system as described in element 3 to prevent direct exposure. This treatment changes the contamination from a soluble form to a stable, insoluble compound to reduce or eliminate the matrix as a source of groundwater contamination.

5. A site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil exceed the commercial soil cleanup objectives (SCOs). The site cover may consist of paved parking areas, sidewalks, soil cover, or other Department approved cover. Where soil cover is required it will be a minimum of one foot of soil with the upper six inches of soil of sufficient quality to maintain a vegetative layer. All cover will be placed over a demarcation layer. Any cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d). In areas where building foundations or building slabs, which preclude contact with soil exist, the requirement for a site cover will be deferred until such time that they are removed.

6. 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.)

7. 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 5 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
Date: 2017.01.03 15:33:02 -05'00'

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Site II-10 Tecumseh Phase II Business Park
Lackawanna, Erie County
Site No. C915198J
January 2017

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

Phone: 716-851-7220

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-10 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 west-central portion of Phase II the site is an 15.79 acre, square shaped, mostly vegetated, parcel that is vacant except one former manufacturing building known as the Number 15 Mill Roll Shop currently used for the manufacture of pet bedding material. A electrical sub-station is located within the site but is excluded from the Brownfield program. 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:

- 48" and 54" Mill Roll Shop
- 48" and 54" Finishing Mill

- 28" – 35" Mill
- 14" – 18" Mill
- Cooling Beds
- Hot Bed Building
- Tie Plate Shop

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:

- 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)pyrene	arsenic
dibenz[a,h]anthracene	chromium
benzo(b)fluoranthene	petroleum products
benzo(a)anthracene	lead
indeno(1,2,3-CD)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.

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

Railroad Realignment Hotspot Removal

Soils impacted with levels of arsenic 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. A test pit, RR-TP-41 contained arsenic at 149 parts per million (ppm).

An IRM was completed in 2013 in conformance with a Department approved IRM Work Plan which removed and disposed off-site approximately 542 cubic yards of contaminated soils from the test pit areas.

The excavation was 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-10 site are metals, including arsenic, chromium and lead. 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 3.1 ppm to 149 ppm exceed the SCO in 9 of 15 samples and when compared to the commercial SCO of 16 ppm, exceed in 8 of 15 samples. Chromium from 3.6 ppm to 671 ppm exceeds the unrestricted SCO of 1 ppm in 15 of 15 samples but when compared to the commercial SCO of 400 ppm only one sample exceeded. Lead, from 6.9 ppm to 603 ppm, exceeds the unrestricted SCO (63 ppm) in 13 of 15 samples but when compared to the commercial SCO of 1,000 ppm, no sample exceeded the SCO.

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 only benzo(a)pyrene, from 1.7 ppm to 110 ppm, exceeded the SCO of 1 ppm for the same number of samples as unrestricted with 11 of 11 samples exceeding. Dibenzo(a,h)anthracene, ranging from 0.4 ppm to 20 ppm with an SCO of 0.56 ppm, exceeded the commercial SCO in 9 of 11 samples. Benzo(b)fluoranthene, ranging from 1.8 ppm to 120 ppm exceeded the SCO of 5.6 ppm in 7 of 11 samples. With commercial SCOs of 5.6 ppm, benzo(a)anthracene from 1.3 ppm to 120 ppm, and indeno(1,2,3-cd)pyrene from 1.2 ppm to 69 ppm, each exceeded SCOs in 5 of 11 samples.

Due to the presence of high voltage transformers and switching gear no information was collected within the electrical sub-station, however, test pits near the sub-station did not indicate impacts emanating from the site.

Weathered petroleum impacts were noted in several test pit areas as sheens or product.

No VOCs or PCBs exceeded unrestricted SCOs in soils.

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 1,043 parts per billion (ppb) exceeds the standard of 300 ppb, magnesium as high as 58,200 ppb exceeds groundwater guidance values of 35,000 ppb and arsenic as high as 491 ppb exceeds the GwQS of 25 ppb. VOCs and SVOCs were not detected or well below groundwater quality standards. Groundwater was sampled from overburden and bedrock monitoring wells on the parcel and there were no exceedances of groundwater quality standards (GwQS).

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 Excavation with Ex-situ and In-situ Treatment 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. Excavation and off-site disposal of contaminant source areas, including:
grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination; and non-aqueous phase liquids.

3. Ex-situ bio-remediation will be implemented to treat two petroleum impacted areas totaling approximately 2,300 cubic yards of fill material. The contaminated soil will be excavated and treated on-site in a manner encouraging naturally occurring biological processes. Once the soils have been treated to goals as set forth in 6 NYCRR Part 375-6.7(d) for commercial use* the stabilized soil will be used as on-site backfill as needed and then be covered as described in element 5 to prevent direct exposure. This treatment changes the contamination from a soluble form to a stable, insoluble compound to reduce or eliminate the matrix as a source of contamination.

* If after 12 months the material is sampled and fails to attain the goals as set forth in 6 NYCRR Part 375-6.7(d) for commercial use the contaminated material will be disposed, properly, off-site.

4. In-situ stabilization (ISS) will be implemented to treat a weathered organic fill area 20 feet by 20 feet over a four-foot depth 5 to 9 feet below ground surface, located in the north central portion of the site, as indicated on Figure 2. ISS is a process that uses a stabilizing agent which chemically changes contamination to make it less soluble. The contaminated soil will be treated in place with stabilizing agents using a direct push rig or augers. The stabilized soil will then be covered with a cover system as described in element 3 to prevent direct exposure. This treatment changes the contamination from a soluble form to a stable, insoluble compound to reduce or eliminate the matrix as a source of groundwater contamination.

5. A site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil exceed the commercial soil cleanup objectives (SCOs). The site cover may consist of paved parking areas, sidewalks, soil cover, or other Department approved cover. Where soil cover is required it will be a minimum of one foot of soil with the upper six inches of soil of sufficient quality to maintain a vegetative layer. All cover will be placed over a demarcation layer. Any cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d). In areas where building foundations or building slabs, which preclude contact with soil exist, the requirement for a site cover will be deferred until such time that they are removed.

6. 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.)

7. 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 5 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.

bing Maps

FIGURE 1

Site Location
Tecumseh Phase II Business Park

Phase II-10 Site
Site No. C915198J

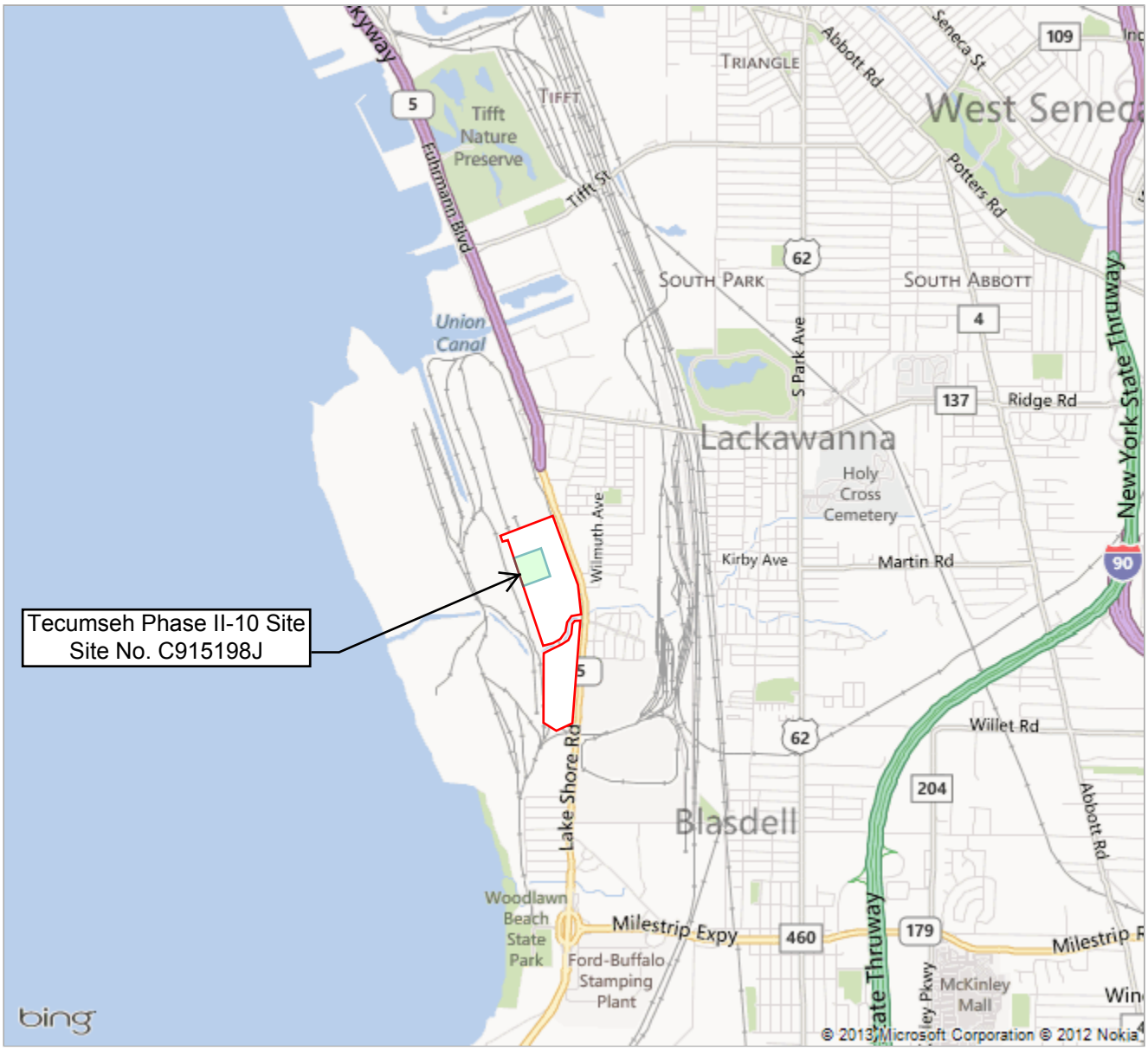


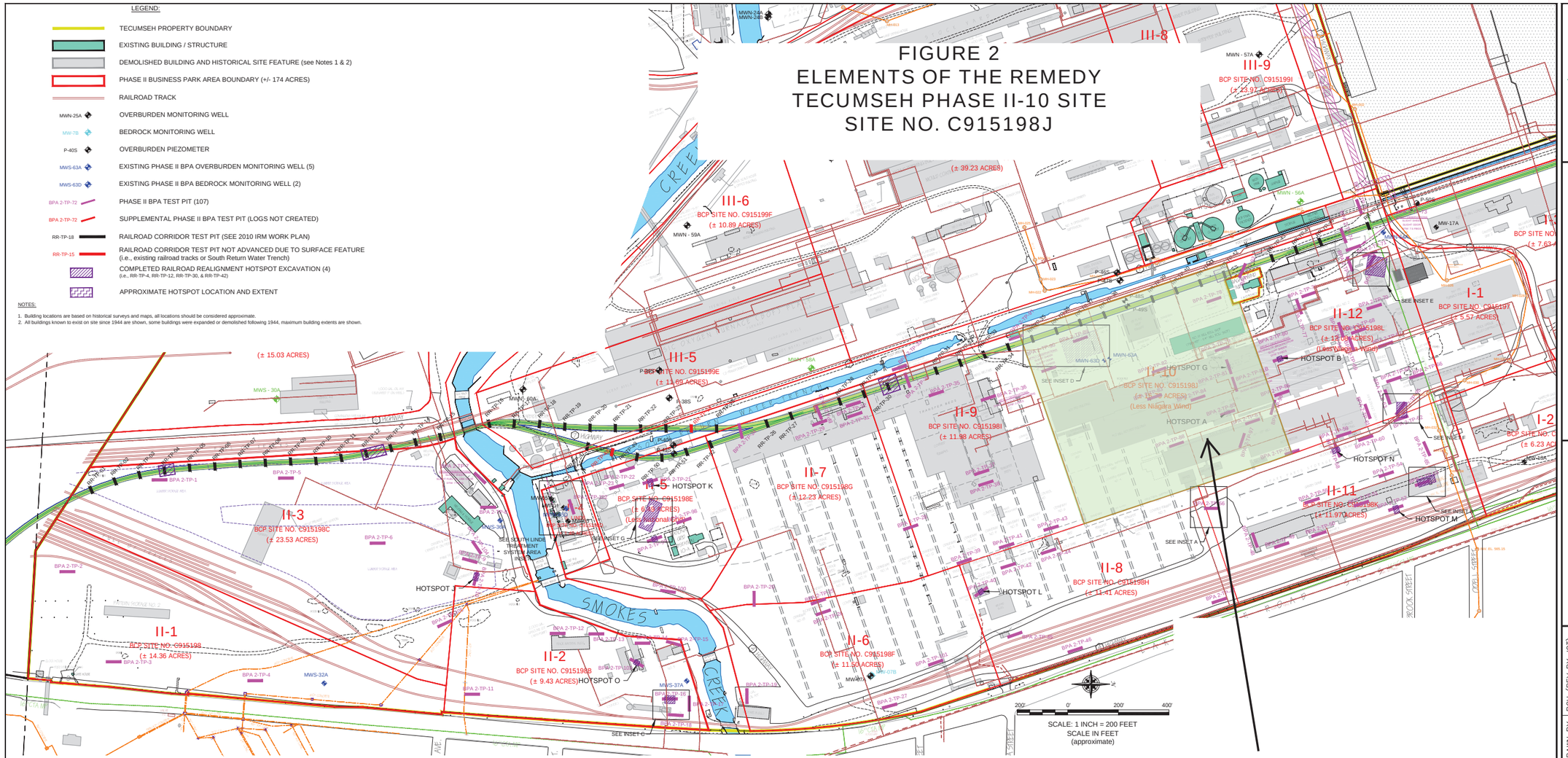
FIGURE 2
ELEMENTS OF THE REMEDY
TECUMSEH PHASE II-10 SITE
SITE NO. C915198J

LEGEND:

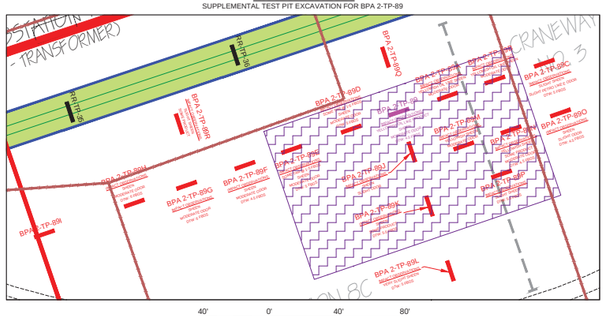
- TECUMSEH PROPERTY BOUNDARY
- EXISTING BUILDING / STRUCTURE
- DEMOLISHED BUILDING AND HISTORICAL SITE FEATURE (see Notes 1 & 2)
- PHASE II BUSINESS PARK AREA BOUNDARY (+/- 174 ACRES)
- RAILROAD TRACK
- MWN-25A — OVERBURDEN MONITORING WELL
- MW-7B — BEDROCK MONITORING WELL
- P-40S — OVERBURDEN PIEZOMETER
- MWS-63A — EXISTING PHASE II BPA OVERBURDEN MONITORING WELL (5)
- MWS-63D — EXISTING PHASE II BPA BEDROCK MONITORING WELL (2)
- BPA 2-TP-72 — PHASE II BPA TEST PIT (107)
- BPA 2-TP-72 — SUPPLEMENTAL PHASE II BPA TEST PIT (LOGS NOT CREATED)
- RR-TP-18 — RAILROAD CORRIDOR TEST PIT (SEE 2010 IRM WORK PLAN)
- RR-TP-15 — RAILROAD CORRIDOR TEST PIT NOT ADVANCED DUE TO SURFACE FEATURE (i.e., existing railroad tracks or South Return Water Trench)
- COMPLETED RAILROAD REALIGNMENT HOTSPOT EXCAVATION (4) (i.e., RR-TP-4, RR-TP-12, RR-TP-30, & RR-TP-42)
- APPROXIMATE HOTSPOT LOCATION AND EXTENT

NOTES:

1. Building locations are based on historical surveys and maps, all locations should be considered approximate.
2. All buildings known to exist on site since 1944 are shown, some buildings were expanded or demolished following 1944, maximum building extents are shown.



INSET D: HOTSPOT D
SUPPLEMENTAL TEST PIT EXCAVATION FOR BPA 2-TP-89



Hotspot "A & D - Removal, Ex-situ treatment

Hotspot "G" - In-situ stabilization

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)

TURN-KEY Environmental LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0071-009-310

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH (REV BY JCT)
DATE: NOVEMBER 2008 (REV MAR 2012)
CHECKED BY:
APPROVED BY:

ELEMENTS OF THE REMEDY
REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS REPORT
PHASE II BUSINESS PARK AREA
LACKAWANNA, NEW YORK

PREPARED FOR
TECUMSEH REDEVELOPMENT INC.

FIGURE 2