NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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March 13, 2018

Mr. Paul H. Werthman
2424 Hamburg Turnpike, LLC
2424 Hamburg Turnpike
Lackawanna, New York 14218

RE: 2424 Hamburg Turnpike, Site No: C915296
Lackawanna, Erie County
Remedial Investigation/Interim Remedial Measures/Alternatives Analysis Report and Decision Document

Dear Mr. Werthman:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Remedial Investigation/Interim Remedial Measures/Alternatives Analysis Report (RI/IRM/AAR) for the 2424 Hamburg Turnpike site, dated August 2017 and prepared by Turnkey Environmental Restoration, LLC on behalf of 2424 Hamburg Turnpike, LLC. The RI/IRM/AAR is hereby approved. Please ensure that a copy of the approved RI/IRM/AAR is placed in the document repository. The draft plan should be removed.

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.

Please contact the Department's Project Manager, Anthony Lopes, 716-851-7220, at your earliest convenience to discuss next steps.

Sincerely,

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

Enclosure
ec: M. Ryan, DER
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J. Dougherty, OGC, Region 9
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DECISION DOCUMENT

2424 Hamburg Turnpike
Brownfield Cleanup Program
Lackawanna, Erie County
Site No. C915296
March 2018

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

DECLARATION STATEMENT - DECISION DOCUMENT

2424 Hamburg Turnpike
Brownfield Cleanup Program
Lackawanna, Erie County
Site No. C915296
March 2018

Statement of Purpose and Basis

This document presents the remedy for the 2424 Hamburg Turnpike 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 2424 Hamburg Turnpike site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

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 Dual Phase Soil Vapor and Groundwater Extraction System
Dual phase extraction (DPE), also known as multi-phase extraction, is a technology that uses a high-vacuum system to remove both contaminated groundwater and soil vapor. In DPE systems a high-vacuum extraction well is installed with its screened section in the zone of contaminated

soils and groundwater. Fluid/vapor extraction systems depress the water table and water flows faster to the extraction well. DPE removes contaminants from above and below the water table.

Prior to the full implementation of this technology, a pilot study will be conducted to more clearly define design parameters. The pilot study will determine dual phase soil vapor and groundwater extraction (DPE) well zone of influence and operational parameters including the installation of (9) DPE wells: two within the former automotive repair building, six west of the building, and one north of the former UST excavation.

If the studies determine that the treated soil/groundwater does not or will not meet the remedial action objectives for groundwater using this technology alone, additional treatment/design will be conducted and/or an alternate technology will be proposed.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued effective operation is technically impracticable or no longer feasible.

3. Cover System
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 will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used, it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

4. Institutional Control
Imposition of an institutional control in the form of an environmental easement for the controlled property which will:
• require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
• allow the use and development of the controlled property for commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
• restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
• require compliance with the Department approved Site Management Plan.

5. Site Management Plan
A Site Management Plan is required, which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: The cover system discussed in Paragraph 3 above and the in-situ dual phase soil vapor and groundwater extraction 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, groundwater, and surface water use restrictions;
• a provision for evaluation of the potential for soil vapor intrusion for any existing buildings that become (re)occupied and any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
• a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs)
• 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; and
• a schedule of monitoring and frequency of submittals to the Department; and
• monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
• procedures for operating and maintaining the remedy;
• compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
• maintaining site access controls and Department notification; and
• providing the Department access to the site and O&M records.

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: 2018.03.08 10:16:22 -05'00'

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

2424 Hamburg Turnpike
Lackawanna, Erie County
Site No. C915296
March 2018

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 repository:

Buffalo & Erie County Public Library
Attn: Jennifer Johnston
Lackawanna Branch
560 Ridge Road
Lackawanna, NY 14218
Phone: 716-823-0630

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 1.04-acre site is in an urban area located approximately 300 feet south of the intersection of Hamburg Turnpike and Holbrook Street in the City of Lackawanna.

Site Features: The site is relatively flat, mostly covered with asphalt, and includes a former auto repair building with an in-ground hydraulic lift and a small storage shed.

Current Zoning and Land Use: The site is currently inactive and zoned commercial/industrial.

Past Use of the Site: From 1957-1994 the site was utilized as an automobile filling and service station. Three 10,000-gallon underground storage tanks (USTs) associated with the filling station were removed in 1994.

Site Geology and Hydrogeology: Site soils consist of 0 to 8 feet of fill material (sand, gravel, brick, slag, soils) underlain by native soils (clay, peat and sand) to 16 feet below ground surface (fbgs). Depth to groundwater is 6 to 8 fbgs and flows westward towards 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(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: 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
benzo(b)fluoranthene
benzo(a)anthracene
indeno(1,2,3-cd)pyrene
chrysene
benzene
ethylbenzene
toluene
arsenic
xylene (mixed)
naphthalene
n-propylbenzene
isopropylbenzene
1,2,4-trimethylbenzene
1,3,5-trimethylbenzene

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 activities were conducted March through April 2017.

Limited excavation and off-site disposal of contaminant source areas below the existing auto repair building, including:
• grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u) and soils exhibiting PID measures exceeding 100 ppm;
• removal and proper disposal/recycling of existing in-ground auto lifts and contents of, underground piping, and other associated structures;
• non-aqueous phase liquids;
• soil with visual waste material or non-aqueous phase liquid; and
• soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Clean fill meeting the commercial soil cleanup objective (CSCO) requirements of 6 NYCRR Part 375-6.7(d) was brought in to replace the excavated soil or complete the backfilling of the excavation and establish the designed grades at the site.

Contamination left in place include grossly contaminated media (GCM) below the foundation of the existing auto repair building (to save the structure) and additional contamination outside and around the former fuel dispensing area to be addressed as part of the final remedy.

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:

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern include VOCs, SVOCs and grossly contaminated media (GCM).

Surface soil (0-2 inches below ground)
The only exceedance of CSCOs was benzo(a)pyrene at one location (3.2 parts per million (ppm) vs CSCO 1 ppm). The remaining VOC, SVOC, metal, pesticide, herbicide, and PCB concentrations were either below or slightly above Unrestricted Soil Cleanup Objectives (USCOs).
Data does not indicate any off-site impacts to surface soil related to this site.

Subsurface Soil
GCM was identified over approximately two thirds of the site with strong petroleum-like odors, sheen/floating product on the water table to 15 fbgs, and photoionization detector (PID) readings up to 1,014 ppm. No VOCs were detected above Part 375 CSCOs. The following SVOCs exceeded CSCOs SCOs: benzo(a)anthracene (up to 13 ppm; CSCO 5.6 ppm), benzo(b)fluoranthene (up to 18 ppm; CSCO 5.6 ppm), benzo(a)pyrene (up to 10 ppm; CSCO 1 ppm), and indeno(1,2,3-cd) pyrene (up to 7.3 ppm; CSCO 5.6 ppm). Arsenic was present above its respective Part 375 CSCO in subsurface soil/fill at three sample locations (up to 25.9 ppm; CSCO is 16 ppm). Pesticides, herbicides and PCBs were not detected above USCOs.
Data does not indicate any off-site impacts to subsurface soil related to this site.

Groundwater
The following VOCs were detected above their Groundwater Quality Standard (GWQS): benzene in two wells at a concentration up to 520 parts per billion (ppb) (GWQS 1.0 ppb); 1,2,4-trimethylbenzene in two wells at a concentration up to 2,000 ppb (GWQS 5.0 ppb); 1,3,5-trimethlybenzene in two wells at a concentration up to 490.0 ppb (GWQS 5.0 ppb); ethylbenzene in one well at a concentration up to 1,500 ppb (GWQS 5.0 ppb); toluene in three wells at a concentration up to 3,000 ppb (GWQS 5.0 ppb); and total xylenes in four wells at a concentration up to 7,800 ppb (GWQS 5.0 ppb).

The following SVOCs were detected above their GWQS: naphthalene in one well at a concentration up to 24 ppb (GWQS 10 ppb); and phenol in one well at a concentration up to 2.1 ppb (GWQS 1 ppb).

Arsenic was detected in two wells at a concentration up to 63 ppb (GWQS 25 ppb).
Herbicides, pesticides and PCBs were not detected above GWQS.
Data does not indicate any off-site impacts in groundwater related to this site.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Direct contact with contaminants in soil and groundwater is unlikely because the majority of the site is covered with buildings and/or pavement. However, people will come into contact with site-related soil and groundwater contamination if they dig below these materials. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply not affected by this contamination. Volatile organic compounds in the groundwater or soil 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 inhalation of site-related contaminants in indoor air for any future on-site redevelopment or occupancy. Sampling indicates soil vapor intrusion is not a concern for off-site buildings.

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

- Remove the source of ground or surface water contamination.
- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

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 Commercial Use (Track 4) 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 Dual Phase Soil Vapor and Groundwater Extraction System

Dual phase extraction (DPE), also known as multi-phase extraction, is a technology that uses a high-vacuum system to remove both contaminated groundwater and soil vapor. In DPE systems

a high-vacuum extraction well is installed with its screened section in the zone of contaminated soils and groundwater. Fluid/vapor extraction systems depress the water table and water flows faster to the extraction well. DPE removes contaminants from above and below the water table.

Prior to the full implementation of this technology, a pilot study will be conducted to more clearly define design parameters. The pilot study will determine dual phase soil vapor and groundwater extraction (DPE) well zone of influence and operational parameters including the installation of (9) DPE wells: two within the former automotive repair building, six west of the building, and one north of the former UST excavation.

If the studies determine that the treated soil/groundwater does not or will not meet the remedial action objectives for groundwater using this technology alone, additional treatment/design will be conducted and/or an alternate technology will be proposed.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued effective operation is technically impracticable or no longer feasible.

3. Cover System
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4. Institutional Control
Imposition of an institutional control in the form of an environmental easement for the controlled property which will:
• require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
• allow the use and development of the controlled property for commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
• restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
• require compliance with the Department approved Site Management Plan.

5. Site Management Plan
A Site Management Plan is required, which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: The cover system discussed in Paragraph 3 above and the in-situ dual phase soil vapor and groundwater extraction system discussed in Paragraph 2 above.

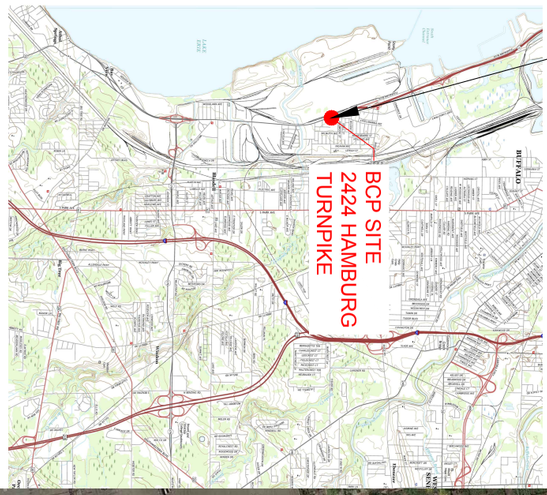
This plan includes, but may not be limited to:
• an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
• descriptions of the provisions of the environmental easement including any land use, groundwater, and surface water use restrictions;
• a provision for evaluation of the potential for soil vapor intrusion for any existing buildings that become (re)occupied and any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
• a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs)
• 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.

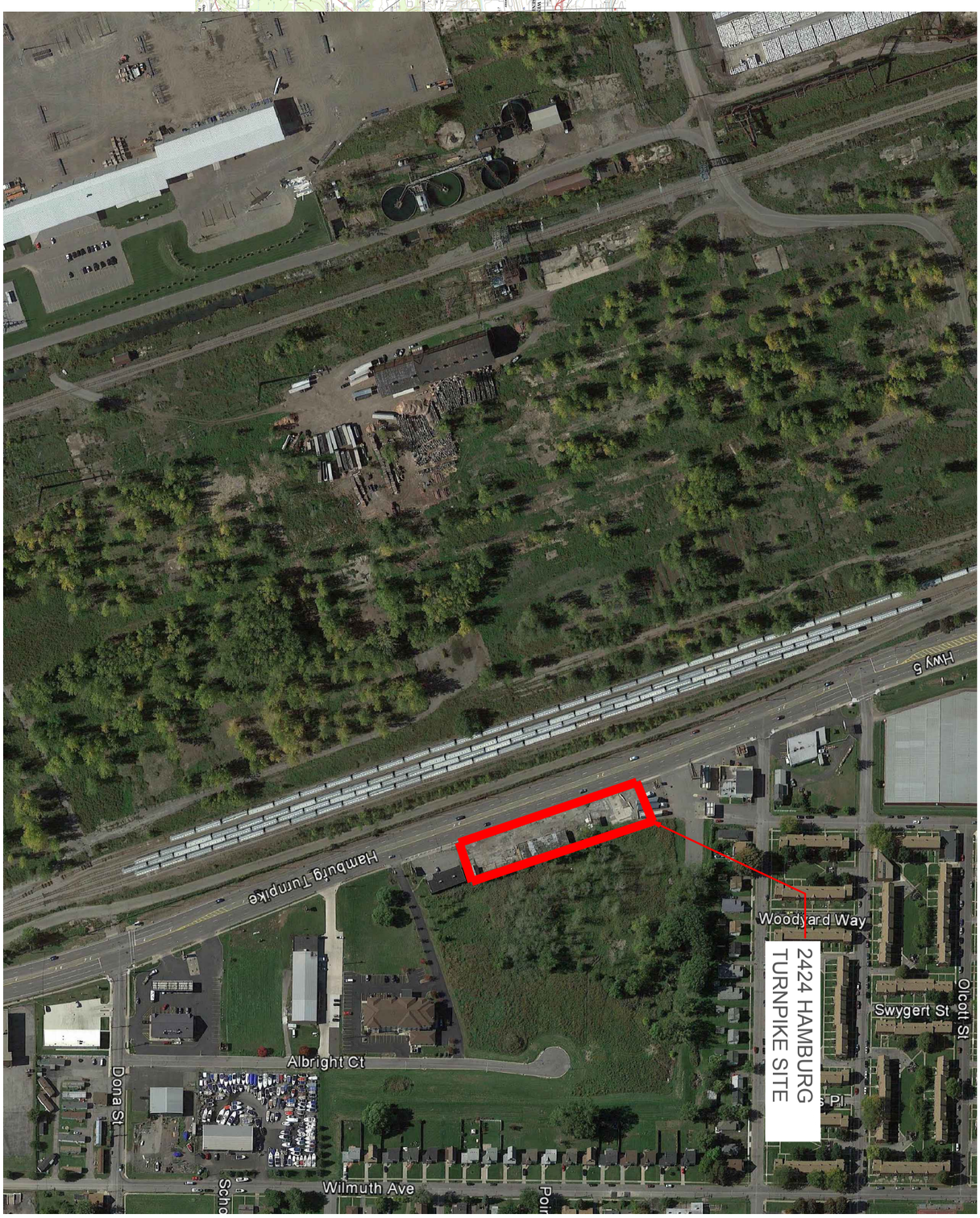
b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
• monitoring of groundwater to assess the performance and effectiveness of the remedy; and
• a schedule of monitoring and frequency of submittals to the Department; and
• monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
• procedures for operating and maintaining the remedy;
• compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
• maintaining site access controls and Department notification; and
• providing the Department access to the site and O&M records.

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\Files for DEC\Figure 1; Site Plan Zoomed Out.dwg

DATE: SEPTEMBER 2016
DRAFTED BY: CCB





SOURCE: GOOGLE EARTH OCTOBER 2016 IMAGERY

AERIAL OF SITE
APPROXIMATE SCALE 1" = 300'

N

FIGURE 1

SITE VICINITY AND LOCATION PLAN

REMEDIAL INVESTIGATION / ALTERNATIVES ANALYSIS REPORT

2424 HAMBURG TURNPIKE SITE

LACKAWANNA, NEW YORK

PREPARED FOR

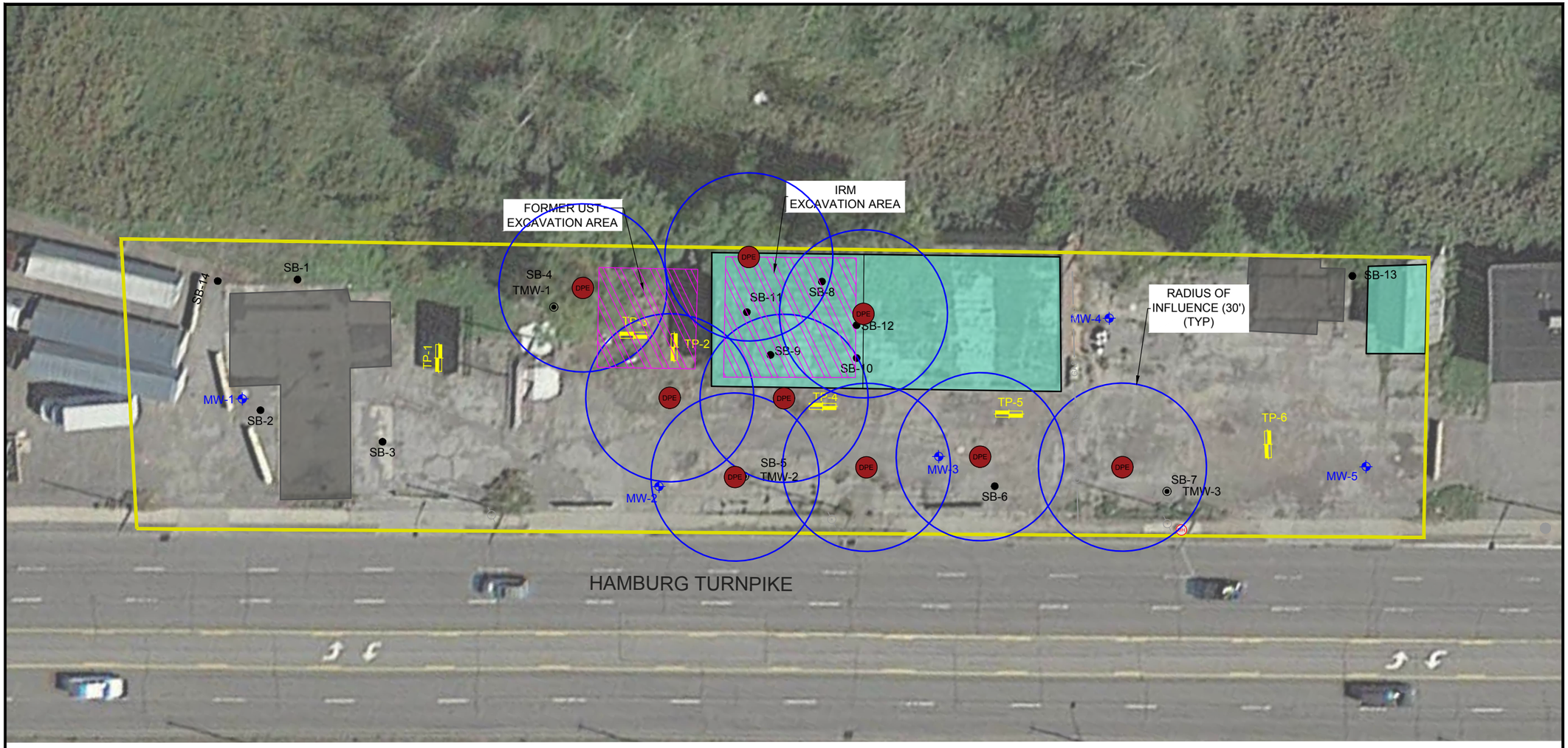
2424 HAMBURG TURNPIKE, LLC

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0345-015-001

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\RI-IRM-AA Report\Figure 6 Fig 2 for DEC; Planned Remedial Action.dwg, DWG to PDF.pc3



SCALE: 1 INCH = 40 FEET
SCALE IN FEET
(approximate)

LEGEND:

- SITE BOUNDARY
- EXISTING STRUCTURE
- SB-11 ● RI SOIL BORING
- TP-1 RI TEST PIT
- MW-1 RI MONITORING WELL
- SB-1 ● SOIL BORING (PHASE II - 2014)
- SB-4 / TMW-1 ◉ TEMPORARY MONITORING WELL (PHASE II - 2014)
- GAS GAS NATURAL GAS LINE
- MH MANHOLE
- UTILITY POLE
- DPE PROPOSED DUAL PHASE (SOIL VAPOR AND GROUNDWATER) EXTRACTION WELL (9)

DATE: FEBRUARY 2018
DRAFTED BY: RFL

TRACK 4 COMMERCIAL USE CLEANUP ALTERNATIVE DUAL PHASE EXTRACTION

REMEDIAL INVESTIGATION / ALTERNATIVES ANALYSIS REPORT

2424 HAMBURG TURNPIKE SITE

LACKAWANNA, NEW YORK

PREPARED FOR

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FIGURE 2